

# Building Resilience in Children and their Communities Following Disaster in a Developing Country: Responding to the 2010 Earthquake in Haiti

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**Abstract** This paper provides an example of a resilience-based intervention approach to acute trauma that addresses individual-level resilience in children and in those that care for them, and the community as a whole. Resilience-based approaches to trauma intervention focus on activating the protective processes in each individual child to lead to better psychosocial outcomes. However, rebuilding or strengthening community capacity is essential to supporting resilience at the community-level. This paper illustrates how one foreign NGO provided resources, training, and guidance to community members who were seeking help in implementing trauma intervention. Through equal partnership with local leaders, the intervention was translated to meet the specific cultural and contextual needs of children and childcare workers in the tent cities and schools of Port au Prince following the earthquake. Marrying financial and technical support with local expertise resulted in a sustainable, trauma-informed, culturally-oriented solution to providing intervention post-earthquake.

**Keywords** Resilience · Post-disaster intervention · Community capacity

There is a growing body of research exploring the needs for psychosocial intervention and support following acute and chronic traumatic events, including natural disasters, political

conflicts, and war in developing countries. Research is limited, in part, because the unpredictability of such acute traumatic events can prevent the collection of pre-disaster data and presents ethical and logistical challenges to conducting research (Masten and Osofsky 2010). In the absence of empirically-based guidelines for this work, there are few roadmaps for how to approach intervention post-disaster in a way that builds resilience in children, and their communities. This article documents how a resilience-focused trauma intervention was translated into a locally-led post-disaster intervention following the 2010 earthquake in Haiti. Though each disaster presents unique challenges, the goal of this article is to demonstrate how key principles of resilience-building at both the child and the community level can offset common obstacles to successful post-disaster intervention and guide effective solutions.

The Playmaker model of trauma intervention is to provide training, resources, support, and ongoing consultation to teachers, childcare workers, clinicians, and other frontline staff who are already working with children exposed to trauma. The training series focuses on a) providing educational content on the impact of trauma on children, b) imparting a strengths-based model for engaging with the children in their care, and c) developing and sustaining key competencies to support resilience in children through games, play activities, and overall teaching/interaction style. Through the training process, trainees develop the capacity to create a space that promotes safety and empowerment, engagement and creativity, social connection, and joy through their relationship with each child. It is hoped that the translation of the Playmaker intervention into a post-disaster intervention in Haiti can provide a useful model for implementing resilience-based intervention at the child-level and at the community-level following a large-scale disaster in a severely under-resourced environment.

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The island nation of Haiti was hit by an earthquake in January 2010. Even prior to the earthquake, Haiti was ranked 161 out of 182 countries in the Human Development Index (measuring achievement in life span, health, knowledge, and standard of living), with about 56 % of its 10,000,000 citizens living in multidimensional poverty (e.g., suffering from deprivations in nutrition, shelter, electricity, access to clean water) (Malik 2013). Chronic poverty and political instability has been a challenge in Haiti for decades; the earthquake severely exacerbated existing conditions. According to official Haitian government estimates, more than 300,000 people were killed, with an additional 300,000, or more, injured (United States Geological Survey (USGS), 2015). Estimates conclude that 1.3 million people were displaced from their homes. Prior to the 2010 earthquake, there were approximately 380,000 orphans in Haiti. It is estimated that the number of orphans doubled following the earthquake. Three years after the earthquake, 360,000 people continued to live in makeshift shelters in tent camps and chronic poverty persists to this day (Sontag 2012).

### Psychological Impact of Disaster on Children and Their Communities

Disasters like the earthquake in Haiti pose serious threats to the physical and psychological health of children (for a review, see La Greca et al. 2002; La Greca et al. 1998; MacFarlane 1987; Onyango, 2008; Ronen, 2002). In the wake of disaster, access to food, clean drinking water, and medical resources can be highly compromised. Following an event such as the Haiti earthquake, the health and nutrition status of children is significantly diminished. When primary caregivers are killed, missing, injured or psychologically unavailable to attend to their children's needs, children are further at risk for injury, exploitation, or abuse (Ager et al. 2010). In countries like Haiti with severely limited resources, substandard housing and road infrastructure, ineffective early warning systems and the lack of strong relief resources can contribute significantly to the immediate and long-term devastation caused by a natural disaster (Red Crescent Societies (IFRC) 2009). Aftershocks, failure to provide aid, and disease epidemics (e.g., cholera) make it difficult to determine what constitutes 'post-trauma' (Hobfoll et al. 2007). In this context of increased danger and threat, it is not surprising that there is an evidenced increase in psychopathological outcomes amongst children. Elevated symptoms of PTSD, anxiety, and depression can be widespread for the first few months following a mass trauma; increased symptoms lasting one to 2 years typically affect up to 30 % of the youth population (Bonanno et al. 2010).

In addition to the aforementioned individual and family-level impacts of trauma, community capacity is also

often diminished in the wake of a disaster (Ager et al. 2010). When disasters cause widespread damage as in the case of the Haiti earthquake, institutions and community organizations that provide support to children (e.g., schools, social services, programming) are often equally affected. In Haiti, 80 % of schools were significantly damaged or destroyed following the earthquake (United United Nations 2010). For children living in the wake of a disaster, the family members and community organizations that they usually rely on may not be able to meet all of their physical and psychological needs.

In spite of these intensive risks, children, families, and communities often demonstrate notable levels of resilience after a disaster. In recent years, a resilience-focused framework has been applied to the study of child wellbeing in the face of disaster and war (Betancourt and Khan 2008; Luthar 2006). Resilience refers not to a quality possessed by some children but to "resilient trajectories in children faced with adversity" (Betancourt and Khan 2008 p. 4). In fact, resilient trajectories may be best defined as multidimensional (Harvey 2007) in that trauma survivors are often "simultaneously suffering and surviving" (Harvey 2007 p. 15). Faced with adversity and subsequent psychological distress, individuals are often able to access internal capacities for strength and growth. In addition to individual-specific factors such as gender, socio-economic status, and trauma severity that may act as protective factors, protective processes operate at the individual, family, and community level (Luthar et al. 2000). For a full review of protective processes that lead to resilient outcomes post-disaster, see (Betancourt and Khan 2008; Cicchetti and Rogosch 2009; Klasen et al. 2010).

### Resilience-Based Approach to Post-Disaster Intervention at the Child Level

Clearly, a resilience-based approach to trauma intervention post-disaster should work to build or strengthen these protective processes for the individual child and also at the familial/community level. However, because research and evaluation efforts are typically not prioritized when there is intense urgency to provide services to meet humanitarian needs, there is no evidence-based framework for psychosocial intervention post-disaster (Ager et al. 2010; Hobfoll et al. 2007). In the absence of such framework, a worldwide panel of experts on mass trauma intervention developed a set of evidence-informed recommendations for post-disaster intervention to apply to the community as a whole (Hobfoll et al. 2007). Emphasizing the importance of flexibility in response to the heterogeneous nature of traumatic events and of a broad definition of intervention (from traditional forms of clinical intervention to public health initiatives), Hobfoll and colleagues (2007) identified five intervention principles: 1) promote a sense of safety, 2) promote calming, 3) promote a

sense of self- and collective efficacy, 4) promote connectedness, 5) promote hope. These consensus-derived principles share significant overlap with the four foundational elements of the Playmaker intervention approach: internal control, active engagement, social connection, and joyfulness. Implementing these four principles, childcare professionals nurture engagement and creativity, connection and community, joy and safety, and empowerment through their daily work with children. A discussion of each of the four foundational principles that guided the Playmaker intervention in Haiti follows.

**Internal Control** Internal control refers to an individual's sense of safety, balance, and competence that allows her to comfortably engage with the surrounding world. Unfortunately, an inevitable consequence of a natural disaster (and its sequelae) is that people are faced with a loss of safety (for oneself, loved ones, or even valued possessions) (van der Kolk and McFarlane 1996; de Jong 2002a, b). These threats trigger neuro-biological responses necessary for survival (van der Kolk and McFarlane 1996; Hobfoll 1998); however, the fight or flight response may remain when it is no longer adaptive (Panksepp 1998). However, people who can re-establish a "relative" sense of safety are less likely to develop PTSD in months ahead (Grieger et al. 2003). In a context of extreme poverty when physical safety may be continually under threat, "relative safety" often means using inner resources to establish a sense of safety and peace. Because hyperarousal and extreme emotionality are not uncommon symptoms following trauma, most trauma-oriented psychosocial interventions view 'calming' as a critical therapeutic goal (Hobfoll et al. 2007; Foa et al. 2000). Grounding activities, including diaphragmatic breathing (e.g., Somer et al. 2005), deep muscle relaxation (e.g., Foa and Rothbaum 1998), and yoga (e.g., Cohen et al. 2004) have all shown strong evidence for learning relaxation and mindfulness techniques and reducing anxiety (Hobfoll et al. 2007).

For children, trauma exposure can also undermine some basic cognitive assumptions, such as "I am in control" (Macy et al. 2003). Perceived controllability, Bandura (1993) argues, significantly influences a child's self-regulatory capacity. Children who maintain, or rebuild, a sense of controllability and efficacy in the face of adversity and uncertainty demonstrate better psychosocial outcomes than those who do not (Masten et al. 2009; Rutter 1985; Taylor et al. 2000). While perceived controllability references the child's belief that they have some control over how they experience the world around them, self-efficacy is defined as the belief that one can affect positive change through the successful regulation of one's own thoughts, feelings and behavior (Carver and Scheier 1998). When children feel that they can effectively cope with trauma-related events, they are less likely to experience psychological distress 1 year following

the disaster (Benight and Harper 2002). In children exposed to trauma, emotion regulation is linked to higher rates of prosocial behavior and lower rates of aggression (Kithakye et al. 2010). Helping a child develop perceived control in their environment by teaching emotion regulation skills, providing opportunities for problem-solving, and honoring their choices are key components of effective post-disaster intervention (Goenjian et al. 2005; Terranova et al. 2009).

**Active Engagement** Active engagement captures an individual's enthusiastic focus and overt presence in a given activity. When a person is actively engaged, their participation is intrinsically motivated and is characterized by an integrated focus between mind and body. A child overwhelmed by trauma often struggles to engage actively in play and learning. In young children, trauma often leads to a lack of energy in play, aimlessness, and hypervigilance (Cooper 2000). Hypervigilant children are in a constant state of alert, scanning the environment for any source of potential threat (Macy et al. 2003) and are, therefore, less able to focus their attention on play and exploration of the surrounding world (Carrey et al. 1995).

A key protective factor for children following disaster is the reinstatement of schools, daycare facilities, and community organizations where children can play and learn in a safe environment (APA 2010; Masten and Narayan 2012; Betancourt and Khan 2008). Experts in humanitarian response post-disaster widely endorsed the importance of re-opening schools and community organizations as soon as possible (Ager et al. 2010). Restoration of children's normal routines, including opportunities for learning and play help to rebuild a sense of predictability and safety following a disaster (Masten and Osofsky 2010). Schools, community organizations, and safe spaces to play create opportunities for social support and connection to caring adults and provide a sense of order amidst the chaos caused by the disaster. In particular, activities that invite whole body participation and creativity (e.g., singing, movement, art) facilitate higher levels of active engagement and help children stay in the present moment.

**Joyfulness** Joyfulness refers to an individual's feelings of love, fulfillment, and hope that are expressed through displays of pleasure and exuberance. Following a disaster, survivors are commonly plagued by anger, fear, anxiety, and sadness. However, positive emotions often co-occur with negative emotions during stressful circumstances (Folkman and Moskowitz 2000). During a crisis, people often report heightened feelings of gratitude and love. In fact, the experience of positive emotions may be a key ingredient in resilient functioning post-disaster (Bonanno and Keltner 1997; Fredrickson et al. 2003).

Following a mass trauma, positive emotions can serve as a buffer to the development of depression by broadening people's thinking and behavior repertoires (Fredrickson et al.

2003). By producing more flexible, open-minded, integrative, and creative thought patterns, positive emotions are linked to increases in dopamine circulation (Isen 2002; Fredrickson et al. 2003; Fredrickson and Branigan 2005). Daily experience of positive emotions leads to reductions in depression and increases in hope and optimism (Fredrickson et al. 2008). Joy is the emotional state and hope and optimism are the corresponding cognitive states.

Following a major disaster that threatens individuals' sense of order and how they make sense of the world around them, it is not surprising that people often report losing their sense of hope (Hobfoll et al. 2007). However, being able to maintain an optimistic outlook predicts better psychosocial outcomes because those individuals can envision a better future (Carver and Scheier 1998). In a narrative analysis of children overcoming the trauma of war, Cortes and Buchanan (2007) identified a sense of hope for the future as one of six key resilience themes. Despite a lifetime of hardship and adversity, people often hold on to a sense of optimism and hope for future, and to the belief that God and/or powerful others (such as community leaders, government institutions, or even friends and family) will intervene to help them (Shmotkin et al. 2003). In Haiti, cultural beliefs emphasize hope, gratitude, and humor as key coping strategies when faced with pain and suffering. Activities that invite fun, full-bodied play and movement from cooperative games to singing and dancing provide children with opportunities for smiles, laughter, and joy even under bleak circumstances.

**Social Connection** Social connection refers to an individual's drive for cooperative interaction with others. A building-block for social competence, social connection captures a person's more basic drive to connect with others and feel a sense of belonging—a drive that is reinforced by caring, trusting, and safe relationships with others. Secure attachment to a caregiver is essential for helping children cope effectively with stressors in the environment (Rutter 1985). When children are faced with danger, caregivers provide a sense of reassurance and help children make sense of the world around them (Winnicott 1965). Proximity to close, secure attachment figures during a threat may act as an essential buffer to the experience of trauma, particularly for young children (Garbarino et al. 1991). Therefore, keeping children closely connected to the loving, caring adults in their lives post-disaster should be a top priority in post-disaster planning (Masten and Osofsky 2010).

When children are separated from caregivers or their caregivers' capacity for nurturance is diminished, the support they receive at school and through institutions in their community become even more critical. One longitudinal study demonstrated that for children who are not receiving nurturance at home, a supportive relationship with at least one caring adult outside their home led to significantly better social and

emotional well-being (Werner 1989). A comparison of institutional care settings in Eritrea, orphans who experienced caring relationships with staff demonstrated significantly lower levels of emotional distress (Wolff and Fesseha 1998). Receiving various forms of social support (e.g., help and assistance carrying out tasks, comfort, nurturance, self-esteem boosts) predicted lower average post-traumatic stress symptoms in children post-disaster (Betancourt and Khan 2008). In fact, perceived social support may be more important than received social support as a protective process. When children believe that parents, teachers, and friends will help them if needed, they demonstrate better resilient functioning (Klasen et al. 2010; Cryder et al. 2006).

### **Resilience-Based Approach to Post-Disaster Intervention at the Caregiver Level**

The four principles outlined above provide the philosophical framework for Playmaker intervention at both the child and at the caregiver level. The Playmaker intervention approach is founded on the premise that frontline staff (e.g., teachers, childcare providers, and clinicians) are best-equipped to implement resilience-based intervention because they already have a relationship with the child, are members of that child's community and therefore, possess a unique understanding of the child's context and experience, and are likely to remain in the community to continue the work in years to come. The importance of involving community gatekeepers in the implementation of post-disaster intervention is emphasized by experts in trauma intervention (Hobfoll et al. 2007; Ager et al. 2010; Weisaeth et al. 2007). Following a disaster, first responders for children are most likely to include parents, teachers, and daycare providers (Masten and Obradovic 2008). Therefore, psychosocial intervention should focus on sustaining community resilience and providing resources to those community organizations that support children and their families (Masten and Osofsky 2010). Post-disaster interventions that were conducted in a naturalistic setting for the child and were led by service providers who were already part of the child's life were successful in reducing post-traumatic stress and depressive symptoms (Layne et al. 2008). Following Hurricane Katrina, a 15 week curriculum-based model of the Playmaker intervention was implemented in multiple Gulf Coast Head Start preschools with children directly impacted by the hurricane. Research conducted in partnership with a local university demonstrated that participating children were significantly less depressive, anxious, aggressive, and withdrawn and significantly more joyful, pro-social, and independent than children in the control condition (Cornelli Sanderson 2010).

Whether a community has been plagued by violence and the ill effects of chronic poverty or is recovering from a natural

disaster, frontline professionals have often been exposed to the same stressors as the children in their care. After a series of sniper attacks in Washington, DC, lower perceived safety and higher perceived threat were key risk factors for the development of acute stress disorder, depression, and increased alcohol use amongst first responders working at local hospitals (Grieger et al. 2003). Following disaster, mental health professionals report increased distress due to the need to manage the intense, unmet needs of the children they work with, while simultaneously managing the direct impact of the disaster on their own lives (Kataoka et al. 2009; Dean et al. 2008). In these settings of increased stress and high risk for professional burnout, it is necessary to address the mental health needs of the providers (Taylor et al. 2012). For childcare professionals to successfully implement a resilience-based intervention, they must also feel connected to their own resilience. Recognizing the importance of supporting each trainee's personal resilience, the Playmaker approach to personal and professional development of childcare professionals is grounded in the same four foundational principles of its intervention: ensuring that each training activity, coaching session, and social event for professionals offers opportunities for empowerment, engagement, connection, and joy.

### Resilience-Based Approach to Post-Disaster Intervention at the Community Level

These same principles guided the development of a partnership with local Haitian leaders in response to the 2010 earthquake in Haiti. The following section documents the way in which the Playmaker intervention was introduced, shared, translated, and eventually implemented as a locally-led NGO in Haiti.

**Phase I: “Don’t Just do Something, Stand There.”** When a magnitude 7.0 earthquake struck Haiti in January 2010 and caused massive devastation, many professionals in the trauma community felt compelled to help in some way. International aid poured in from around the world and relief efforts were administered via multiple global aid organizations (e.g., Red Cross) and smaller NGOs. Billions of dollars in aid were pledged by Western nations. In a developing country where internal resources may be compromised following a disaster, international support to provide essential resources and services is often needed and welcome. However, external intervention efforts can inadvertently undermine community resilience if they do not partner with community leaders to provide support (Ager et al. 2010). The empowerment model of community crisis response marries the immediate goal of trauma-focused response with longer-term community capacity-building (Harvey et al. 2007). Without unlocking and supporting community capacity post-disaster, the

intervention will not be impactful in the long-term and may even have corrosive effects on the community's sense of efficacy for the future.

Despite a deep background in trauma response and a strong desire to be useful in the face of such an intense devastation, it was not clear that traveling to Haiti to provide intervention would be helpful. Because disasters are complex events that require intervention at multiple levels, coordination of services and cooperation amongst agencies are fundamental to the success of recovery efforts (Norris et al. 2002). In Haiti, internal infrastructure necessary to receive and coordinate the influx of aid and support was not in place. Following a disaster of this magnitude, basic services providing food, shelter, and medical aid are severely overtaxed. Though workers for aid organizations typically bring resources with them, they still represent another mouth to feed and another person who might require medical attention. Therefore, it was essential that a trip to Haiti would be clear in its purpose, maximize its potential impact, and at the same time, minimize any footprint.

A humanitarian and development organization with a long-standing presence in Haiti focused on education, leadership development, disaster response, and various long-term capacity building initiatives invited the US Playmakers to come to Haiti to conduct an initial needs assessment. The organization had created play spaces within tent cities with the goal to meet the psychosocial needs of children (ages 0–12) deeply affected by the trauma of the earthquake through play. They were seeking additional assistance to determine how to best use the space in a developmentally appropriate, trauma-informed way. Making sure that there is a clear match between what resources an organization can offer and what resources a community needs is a critical element of intervention success (Sandler 2001). By collaborating with an NGO that was already embedded in the Port-au-Prince community, US Playmakers could avoid replicating work already done by others and support local capacity-building to maximize the use of the safe play spaces.

Though Playmakers held significant organizational expertise in how to support frontline childcare staff in providing resilience-based trauma intervention, they recognized that they lacked expertise in how this training model might be implemented in Haiti post-earthquake (and whether it would be relevant). The focus on the first trip to Haiti needed to be on *listening carefully* to what the local NGO members and local community members identified as their needs, and potential ways in which Playmakers could be useful. During the initial needs assessment, Playmaker staff observed the play spaces in the tent cities, visited multiple camps, spoke with people across Port-au-Prince, and held continual meetings with leaders and staff at the Haiti-based NGO. The Playmaker staff stayed focused on observing and listening, but also making their presence useful. Per request, they ran groups with kids,

held impromptu workshops with staff, and acted as an extra pair of hands. Following the assessment, it was collaboratively determined that local Haitian community members on staff at the NGO were well-poised to lead play groups with children in the tent cities. They requested training and support from Playmakers so that they could intentionally bring opportunities for engagement, empowerment, connection, and joy into their play groups.

**Phase II: “Earning Trust.”** Trust is the foundation of any strong partnership and it becomes even more essential in an environment of crisis. In this phase of the work, there were key building blocks that needed to be addressed in order to create a trusting, open partnership between two separate organizations: making a sustainable plan, recognizing the impact of trauma exposure on the Haiti-based partners, and maintaining open, transparent communication. The sustainability of an intervention is a key issue post-disaster. Often aid money, resources, or programming is promised, or started, and then cut short because of a funding shortage or an unanticipated obstacle (Benight 2004; Kaniasty and Norris 1993). Perceived social support may be higher immediately following the disaster as outside aid rushes in and community members work to support each other; however, this period is often followed by a longer period of resource depletion (Kaniasty & Norris, 2004). In order to develop a partnership between these two separate organizations, an important first step was to ensure that the organizations could identify a secure funding source and commit the time and staffing necessary to implement intervention in Haiti for the agreed-upon time period. In the face of great need, it is easy to over-commit resources. However, in order to promote mutual trust and longevity of the partnership, it was important to develop a realistic, sustainable plan for intervention.

The US Playmakers and Haiti-based NGO adapted the training model for implementation in Haiti, identifying cultural differences and adjusting training logistics to meet trainee needs to ensure a successful and therapeutic training experience. A robust follow up plan was developed that connected trainees with US-based trainers via phone and through scheduled visits to Haiti. Key content was jointly reviewed in order to translate critical definitions and concepts in a way that was culturally meaningful. It was important to dialogue about how to effectively translate key terms and definitions into Haitian Creole, particularly the four foundational principles, because these definitions and concepts would be the guiding factors in implementing activities with the children in their care. In a review of the four principles, the Haitian team members substituted the more academic terms (e.g., internal control, active engagement) for powerful Haitian Creole words that captured the essence of each principle. Internal control was translated as *lapé* (peace), joyfulness as *lajwa* (joy), active engagement as *kreyativité* (creativity), and social connection

as *lanmou* (love). While the definitions of each principle remained the same, their new labels became a rallying cry for the trainees and trainers. Additionally, a certified yogi was added to the training team because yoga was a part of the NGO’s cultural fabric.

In preparation for the first training in Haiti, a key challenge was that the trainees themselves were also directly impacted by the earthquake and its aftermath. Some of the trainees had lost friends and loved ones during the earthquake, and some had lost their homes as well. Given that following the training, the trainees would be focused on empowering children to overcome the impact of such traumas, it was essential that the training gave trainees the opportunity to process these traumatic events in culturally appropriate and sensitive ways. A first step was to follow the US-based model in creating a retreat-like setting for the multi-day training. A nearby beach resort was chosen as the training site, providing a brief respite for the childcare providers and offering a gesture of appreciation for their work and dedication. On the first day of training, a simple game called Newsball provided a medium through which trainees were able to openly share their personal experiences around the earthquake. In the game, the ball is passed to anyone who wishes to speak, and the speaker can ask the community to receive their news in a particular way (e.g., a special physical gesture, sound, or movement). Trainees were welcome to share any kind of news (whether happy or sad). Many trainees chose to share their experiences, thoughts, emotions, fears, and regrets. Other trainees chose to not talk about the earthquake, as they had looked forward to the training retreat as a break from the devastating events of the past few months. Creating this safe space to share (or to not share), empathize, and process individual experiences created a trusting, open environment for training and contributed to community- and relationship-building essential for the work ahead.

By the end of the 3-day training, a team of 35 new trainees were prepared to implement play experiences using the Playmaker model with the children throughout the tent cities in Port-au-Prince. Following the training, they facilitated psychosocial play groups with more than 3000 children over the course of the next year. All 35 trainees received ongoing phone supervision and field supervision from the US-based training team. In effort to promote sustainability and create a more locally-driven intervention approach, the US Playmakers selected a core group of highly-skilled trainees to be part of a ‘leadership team.’ The leadership team would receive extensive training so that they could provide on-the-ground support to fellow trainees, manage logistics, and serve as a liaison between the US training team and the Haitian trainees. However, the selection of the leadership team caused significant problems between trainees and undermined the partnership. Members of the leadership team were given additional resources (e.g., a shared laptop to facilitate online supervision

meetings) and opportunities (e.g., visas to travel to the US for further training). In an environment of such limited resources, when many local Haitians and local NGOs were “in survival mode,” trainees who were not part of the leadership team were unintentionally disenfranchised.

To address these concerns, a meeting was called with both partner organizations and all trainees in order to introduce transparency to the process and explain how and why the leadership team was developed. Together it became clear that the leadership team and future planning would have been better developed through democratic, community-based participation. A participatory process engages all of those involved in the work to contribute their knowledge and understanding to the improvement of the initiative (Fawcett et al. 2003). By engaging all community stakeholders in the evaluation of the work so far and in the critical decision-making necessary for determining next steps, the intervention becomes more reflective of community needs (Suarez-Balcazar and Harper 2003). Consistent, clear communication, transparency, and democratic decision-making were emphasized moving forward.

**Phase III: Supporting Local Leaders** After months of play group implementation and continued training and consultation via the US training team, some members of the aforementioned ‘leadership team’ decided to resign from their roles at the Haiti-based NGO in order to focus solely on implementing the Playmaker intervention. At this point, the US-based training team partnered directly with them while at the same time continuing to provide consultation and support to the Haiti-based NGO.<sup>1</sup> The Haitian trainees decided to start a Haitian-led NGO, to which the US Playmakers would provide consultation, technical support, and funding. They requested the support and resources necessary to become master trainers in order to recruit and train other childcare professionals to implement the Playmaker approach in their work with children. In order to define the scope of their work at this early stage, they decided to focus on children in “kindergarten” (in Haiti this primarily includes children aged three to six) and mapped out all of the kindergartens in Port-au-Prince. The quality of a child’s environment and their relationships during early childhood has significant impact on the development of their brain architecture, creating a crucial window for intervention (National Scientific Council on the Developing Child 2007). Further, with a sole focus on early childhood, the new team in Haiti could concentrate their efforts on crafting and delivering an intervention tailored specifically to “kindergarten” staff. One year following the earthquake, the Haiti team completed their first training as trainers. Six months later, the small team was formally conferred NGO status as “Playmakers Ayiti”

with financial backing and support from the US training team. They secured an office space in Port-au-Prince, created a budget and a strategic plan, and hired a small staff.

Providing the training expertise and the financial support to a Haitian-led NGO creates a sustainable solution in which local leaders are reshaping an intervention to more closely match their community’s needs and more closely align with their community’s beliefs and values. Surprisingly, a Haitian-led NGO in Haiti is somewhat of an anomaly. Because the disaster relief and redevelopment efforts have been saturated by international aid, few NGOs on the ground are actually Haitian-led. Though Haitian-led NGOs may more easily insure that an intervention is grounded in community needs and the culture of Port-au-Prince, international NGOs are often given deference. Therefore, when Playmakers Ayiti approach local organizations and schools to recruit teachers and childcare providers for trainers, they have been asked “Where are your *blancs*?” referring to the white Westerners who typically lead NGO efforts there. Hesitation towards partnering with a Haitian-led NGO is likely due to a perceived lack of resources. It is often hard for a Haitian-led organization to get the financial support necessary to implement an intervention successfully because the vast majority of funding is funneled through the large international aid organizations. Of the billions of dollars pledged by other nations for relief and redevelopment efforts, only 1 % of humanitarian aid and only 6 % of bilateral aid was channeled through Haitian institutions (Phillips and Provost 2012).

The long-term durability of an intervention’s impact relies on how well it is rooted in the life of the community (Harvey 1996) and how responsive it is to contextual influences (Durlak and Wells 1997). When community members play active roles in the planning of an intervention, they are able to determine community needs, and also troubleshoot how to surmount barriers to implementation (Taylor et al. 2012; Wandersman et al. 2008). While the US team could share their expertise on the training model and the key principles of the intervention, the Haitian-led team deeply understood the cultural and contextual influences that needed to be accounted for in an adapted version of the US model. Therefore, the train-the-trainer process focused primarily on teaching the foundational content of the Playmaker work, adult learning styles, and the style and structure of the US-based trainings. Playmakers Ayiti took this information and adapted it to fit the culture and needs of the early childhood educators they would be training themselves. Haitian team members took turns translating into Haitian Creole to ensure the content was sound, and everyone’s opinions, questions, and challenges were heard, understood, and addressed. The process of adapting the intervention model to meet the contextual needs of post-earthquake Port-au-Prince and to create a cultural fit was essential to its success.

<sup>1</sup> To date, the Playmakers Ayiti continue to provide training and support to staff at the original partner NGO in their work at play spaces across Port-au-Prince.

Five years after the earthquake, many features of life in Haiti are very different from life in the US. From the first training onward, trainees in the US are invited to access multiple avenues of support from follow-up phone calls, online communities, site visits, booster trainings, workshops, and advanced training. Ongoing, consistent communication with trainees is paramount to long-term program fidelity. The US team relies heavily on electronic communication (via email and social media) to communicate with trainees about upcoming training events or to plan phone calls and site visits. In Haiti, the training team also viewed regular communication with trainees as an essential part of the intervention. However, few trainees have Internet/email access so they must rely heavily on phone and in-person communication. Due to electricity shortages, cell phones are often discharged, and the training team then provides follow-up support by visiting the workplace. Though this system is very labor-intensive, it creates many more opportunities for connection, learning, and onsite supervision in comparison with the US model. Trainees in Haiti feel such a strong sense of support during this process that they are disappointed when they reach an advanced level of training and the follow-up points of contact are less frequent.

That the Haitian trainees work in the challenging context of multidimensional poverty significantly heightens the need for personal wellness at the caregiver level. As in the U.S., Haitian trainees develop wellness plans in which they identify goals and work out plans for achieving goals to feel engaged, to feel connected to friends, family, and co-workers, to feel a sense of empowerment, and to feel joyful in their personal lives. Plans are reviewed and modified during follow-up support by the Haiti team. The Haiti team also maintains a calendar of regularly-scheduled events to build a sense of community and provide opportunities for joy amongst their trainees. Each year, the Haiti team goes to partner institutions where their trainees work to play live music and lead activities with both the children and the teachers as part of the “Gete Show.” Another key event is the Family Play Day when staff members and trainees come to the team office with their families to play games and activities together.

Electricity shortages affected the way in which music was woven into the intervention. In the US, music (played from a CD or MP3 player) is often used to set the tone of a particular game or activity. Because of the lack of electricity in many of the schools and play spaces that the Haiti team visited, using a CD player was not an option. While they investigated possible technical solutions, they improvised and asked team members to bring bonga drums and guitars to the play groups in order to play live music for the children. Having instruments on hand allowed for great flexibility and improvisation, and significantly enhanced the joyful and therapeutic nature of singing and dancing for both the children and the adults. In Haiti, people often derive strength and hope from traditional songs

and view singing as a healing practice in itself. Drumming also enhances the therapeutic aspect of singing, producing feelings of wellbeing and stress reduction (Bittman et al. 2001). Recognizing the power of playing traditional music for the children with live instruments, Playmakers Ayiti hired a musician. They infused the training with traditional Haitian children songs and rhythms; the play groups run by Haitian trainees now all include singing and dancing as a core component. The team also wrote a collection of traditionally-styled songs for children that espouse the core principles of the intervention model: *lanmou* (love), *lape* (peace), *lajwa* (joy), and *kreyativite* (creativity). All of the songs are mostly sung in Haitian Creole. Playmakers Ayiti collaborated with a US-based music college to record and produce the collection into a CD that is now shared across Haiti to provide inspiration and hope to children and their families.

The above anecdote clearly exemplifies the way in which local expertise can enrich an intervention to reflect the community in which it is implemented. Song and dance is part of a rich Haitian culture tradition. Infusing the psychosocial play groups with traditional singing and dancing made them more therapeutic, connecting, and joyful for the children and adults participating. The knowledge and understanding possessed by the Haitian-led team ensures that the intervention model is embedded in community needs and values. At the same time, investing in a community-led intervention model builds community capacity, finds novel solutions to overcoming barriers, and provides plentiful opportunities for community members to tap into their own resilience at both the individual and community level.

## Summary and Discussion

Implementing a trauma intervention for young children following a disaster can be impactful not just on children but also on caregivers and the community overall. Key principles to guide intervention at each level are summarized below. 1) Disaster, particularly when it hits an under-resourced community, can have a profound psychological impact on children. Post-disaster intervention that provides children with opportunities for empowerment, connection, engagement and joy can help to build resilience and foster healing. 2) Disaster, particularly in a developing country where resources are scarce, creates chaos and inconsistency. Providing training and resources to the caregivers who already have relationships with children creates a consistent, sustainable approach to long-term intervention. 3) Community members who are poised to help children have also been impacted by the disaster and they cannot foster resilience in the children they care for unless they feel resilient themselves. Therefore, they too need opportunities for engagement, empowerment, joy, and



connection. 4) Following disaster in a developing country it is clear that there is great need, but it is not always clear how to be most helpful. To prevent a mismatch between what is needed and what is being offered or implemented, the initiation of any intervention should begin with a period of observing, and most importantly listening to leaders in the community who can help to assess needs and the best way to coordinate impactful responses. 5) An intervention's cultural compatibility is paramount to its success. Collaboratively translating each aspect of an intervention with local experts ensures that the intervention's foundational principles are intact and that the specifics of the intervention meet both the cultural and contextual needs of the community. 6) When a community is faced with a dearth of financial and technical resources, planning for sustainability becomes a key component of the intervention model. Partnering with local leaders who are already part of the community to deliver the intervention provides opportunities to build local capacity for sustaining the intervention in the long-term.

It's important to note that the benefits of partnership are not one-sided. The US Playmakers and Playmakers Ayiti continually learn from each other and subsequently evolve in important ways. In two and a half years, Playmakers Ayiti has trained and provided ongoing support to 786 early childhood educators. In turn, these trainees have implemented the approach with over 10,000 children through Playmakers games and activities. Individual members of the Haiti and US teams meet regularly to receive strategic, programmatic, and operational support. The US training team provides books, readings, articles, videos, etc. to contribute to the professional development of many members of Playmakers Ayiti. The Haiti team has taken English classes for professional development, and the US team continues to learn more Haitian Creole each year. Through the learning process, the US team continues to travel to Haiti for trainer development and members of Playmakers Ayiti come to the US for ongoing training, to observe US trainings, and to deliver some content during US trainings. In Haiti, the US team observes Playmakers Ayiti in action, learning new games and activities that were successful in Haiti, and adapt those into trainings in the US. The training model itself has evolved in important ways. Playmakers Ayiti adapted the training model to provide a one-day introductory training ahead of a more intensive two-day training in order to conserve resources and ensure that they were investing in early childhood educators who would be invested themselves. The US team observed the implementation of this new model and its benefits (e.g., lower attrition rates), and officially adapted the model into their own trainings 1 year later. Both parties benefit from open communication, particularly when one group innovates or evolves the intervention model in specific ways.

This type of partnership has had significant benefits for both partners however it is not without challenge. Partnering

with a locally-based NGO following a disaster is labor-intensive and time-intensive, particularly at the start. In a developing country like Haiti, there are continued crises that affect the day to day operations of Playmakers Ayiti. For example, during the chikungunya outbreak, several staff and many Playmakers fell ill. That same year, heavy rains flooded the Playmaker office. However, the partnership allows for the locally-based team to continually enhance its capacity and require a lessening amount of resource (both technical and financial). Resource availability over the long-term is unsurprisingly one of the biggest threats to the durability of the intervention. Playmakers Ayiti continue to rely on the US Playmakers as its funding source. While they are working to identify potential funding sources in Haiti, it is difficult because monetary resources are not plentiful.

Another challenge is the difficulty of conducting research post-disaster. Evaluative research in a developing country following disaster can feel like a distraction from intervention delivery and implementation but it is critically important to the success of future interventions. Future research in this context should consider employing a community-based participatory approach that ensures that the evaluation answers key community-driven questions and achieves the community's goals. By engaging key stakeholders in the design and implementation of the evaluation, community expertise is leveraged to navigate obstacles that are bound to occur in post-disaster research.

Documenting the process through which a foreign NGO based in the US was able to provide resources to support a locally-led intervention post-trauma hopefully provides a roadmap for others. In response to a disaster, resilience-based intervention can help activate the protective processes in children that lead to better psychosocial outcomes. Providing support and resources to *locally-led* resilience-based intervention can additionally foster community resilience by building community capacity in the long-term.

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