

Children's Coping, Adaptation and Resilience through Play in Situations of Crisis

Sudeshna Chatterjee

Action for Children's Environments
New Delhi, India

Citation: Chatterjee, S. (2018). Children's coping, adaptation and resilience through play in situations of crisis. *Children, Youth and Environments*, 28(2), 119-145. Retrieved from <http://www.jstor.org/action/showPublication?journalCode=chilyoutenvi>

Abstract

This paper discusses findings from an international, six-country research project that was undertaken by the International Play Association (IPA) to increase understanding of children's play needs in situations of conflict including natural, humanitarian and man-made disasters and persistent everyday hazards. The findings of this research confirm the importance of space, time, permission and resources as conditions for access to play even in situations of crisis. The study further illustrates children's adaptive capacity to manage risks in high-risk, unsafe environments through play, first as a coping mechanism and over time as a process of building resilience.

Keywords: right to play, access to play, situations of crisis, coping and adaptation, children's resilience, natural disasters, everyday crisis

Introduction

Play is an activity or behavior synonymous with childhood. Play has also been accorded the status of a child's human right as enshrined in article 31 of the United Nations Convention of the Rights of the Child (UNCRC; United Nations, 1989). In 2013, a global landmark for play was reached when the UN Committee on the Rights of the Child adopted General Comment No. 17 on article 31 of the UNCRC to deepen our understanding of play. It defines children's play as:

... any behavior, activity or process initiated, controlled and structured by children themselves; it takes place whenever and wherever opportunities arise.... The key characteristics of play are fun, uncertainty, challenge, flexibility and non-productivity... it is a fundamental and vital dimension of the pleasure of childhood, as well as an essential component of physical, social, cognitive, emotional and spiritual development (Committee on the Rights of the Child, 2013, pp. 5-6).

General Comment No. 17 also highlights the challenges to be addressed in the realization of article 31 rights, including children requiring particular attention such as girls, children living in poverty, children with disabilities, children in institutions, children from indigenous and minority communities, and children in situations of conflict, humanitarian and natural disasters. The Committee on the Rights of the Child was concerned that in situations of conflict or disaster, the child's right to play is often given lower priority than the provision of food, shelter and medicines in spite of play being crucial to children's well-being, development, health and survival in these circumstances.

The International Play Association (IPA), which had spearheaded the process of writing General Comment No. 17 on article 31 of the UNCRC, shared this concern. In 2016, the IPA engaged in an international research project called *Access to Play in Situations of Crisis* in India, Japan, Lebanon, Nepal, Thailand and Turkey to address the gaps in knowledge and programming for promoting children's right to play in situations of crisis.

Situations of Crisis

Globally, humanitarian crisis and disaster conditions are on the rise, impacting millions of people around the world. In 2016, 402 conflicts were ongoing, compared with 278 in 2006, with an unprecedented 65.6 million people forcibly displaced by violence and conflict; 204 million people were affected by natural disasters in 2016 as compared to 102 million in 2015 (UNOCHA, 2017). The extent of the impact of these crisis situations is typically directly proportional to people's vulnerability to hazards and people's capacity to cope (Wisner et al., 2014). In 2011, the United Nations International Strategy for Disaster Reduction (UNISDR) called children and youth the largest group affected by disasters (UNISDR, 2011).

Typology of Crisis

This research considers exposure to natural disasters, man-made emergencies, complex emergencies (Humanitarian Coalition, n.d.) and everyday hazards while living in poverty to be representative of situations of crisis. The table below outlines

the spectrum of risks for children and communities in different situations of crisis (see Table 1).

Table 1. Typology of crisis situations and risk spectrum

Nature of event	Large-scale natural and humanitarian disasters (e.g. tsunamis, earthquakes, typhoons, civil wars, genocide, international conflicts, drought)	Small-scale weather and non-weather-related disasters (e.g. seasonal flooding, storms, house fires, localized landslides, wildfire, epidemics)	Everyday hazards (e.g. unsafe, hazardous living environments; preventable disease, traffic)
Frequency	Infrequent though common to some parts of the world	Frequent (seasonal)	Everyday
Scale	Large or potentially large and life-threatening	Medium, but could be large through a domino effect of quickly spreading damage and related secondary hazards in areas of high concentration of vulnerable populations	Medium in inadequate living environments
Impact on children	Can be catastrophic, violating basic rights of the child	Significant but under-estimated contribution to children's ill-health, injuries, loss of well-being	Significant and mostly ignored contributor to creating unfavorable living environments for children
Risks	Intensive risks ¹	Extensive risks ²	Extensive risks in some places and times

Adapted from Bull-Kamanga, et al. (2003).

Notes:

¹ Intensive Risks: The risk associated with the exposure of large concentrations of people and economic activities to intense hazard events, which can lead to potentially catastrophic disaster impacts involving high mortality and asset loss. See <https://www.unisdr.org/we/inform/terminology>

² Extensive Risks: The widespread risk associated with the exposure of dispersed populations to repeated or persistent hazard conditions of low or moderate intensity, often of a highly localized nature, which can lead to debilitating cumulative disaster impacts. See <https://www.unisdr.org/we/inform/terminology>

Impact of Disaster Experiences on Children

Experiencing difficult or disturbing events can significantly impact the social and emotional wellbeing of a child. Exposure to disaster can result in the loss of a sense of place and familiar home and all the connected services and social networks, and deterioration in living conditions. These can all have immediate as well as long-term consequences for the development of children (Action for the Rights of Children,

2009). The way in which children respond to situations of crisis is often acknowledged as depending on their own personality and resilience; support from family, school and community; the type of crisis; and the duration of the crisis (Benard, 1991; 2004; Coffman, 1998; Sugar, 1989). These situations can have an impact on children's lives both acutely and chronically over time and may result in children experiencing post-traumatic stress, as well as the consequences of any physical violence and injury that results from any of these crises.

Children's Resilience and Coping in the Face of Crisis

Typically, children in situations of crisis are defined as vulnerable and in need of protection. In recent years, however, there has been an emphasis on children's agency and demand for active participation in efforts to prevent, prepare for, and cope with crisis and adapt to the changing circumstances. Resilience—typically understood as the capacity to minimize and absorb stress or destructive forces through resistance or adaptation—is generally seen as a broader concept than "capacity" because it goes beyond the specific behaviors, strategies and measures for risk reduction and management that are normally understood as capacities (Twigg, 2007). The protective factors that contribute to children's resilience range from children's own inner resources and competencies (Punamaki, 1987), to interpersonal relationships (supportive adults and peers), to safe infrastructure and strong institutions (Yates, Egeland, & Sroufe, 2003). Peer relationships such as friendships, particularly in middle childhood and adolescence, are considered significant in mitigating the negative effects of adversity and contributing to a child's sense of self-esteem and triggering other protective factors, such as a sense of competence, sense of belonging, and empathy (Boyden & Mann, 2005). Having friends to play with makes children feel strong and less alone (Mann, 2003). Evidence-based research suggests that through free play, particularly with peers, children develop an ability to make decisions, solve problems, exert self-control, and follow rules. Play also allows children to learn to regulate their emotions and learn to get along with others as equals (Gray, 2011).

Importance of Place and Space for Children during Crisis

Studies in child-environment research have reported that school-age children are the most prolific users of local outdoor spaces for play and recreational activities (Hart, 1979; Moore, 1986; Chawla, 1992; Kyttä, 2003; Chatterjee, 2006). Place research has shown the importance of "special spaces" (Sobel, 2002) and "secret spaces" (Goodenough, 2003; Chatterjee, 2006) as places of escape or relief for children particularly when faced with a crisis or living with persistent everyday hazards. Loss of familiar spaces and places especially affects older children and adolescents who experience heightened needs for privacy, secret places and emotion regulation outside the home base. Many of these places to which children escape or with which they form special relationships are to be found in nature such as in woods, up in a tree or beside water (Chawla, 2014). For instance, in an account of a refugee child of Nepali origin who had to flee from Bhutan, walking along a river in the morning and washing in the river provided her a space of solace and hope (Hinton, 2000). In two examples of forced evictions from squatter settlements in Johannesburg, South Africa (Swart-Kruger, 2002) and Delhi, India (Chatterjee, 2007), adolescents yearned for the parks and green spaces in or near

their former informal neighborhoods that had special meaning for them as places of free action outside the gazes of adults. In the case of Delhi, adolescents embarked on creating a green place in their barren resettlement neighborhood by securing plants and guarding the saplings from cattle and the harsh sun in order to recreate a place that they could make their own.

These experiences of children in different situations of crisis suggest a strong affective relationship with place in which the place acts as a friend of the child and helps with emotion regulation. Places have been empirically found to support children's friendship in different ways, but most importantly they support children in their exploration (including seeking support for a specific play behavior or action), self-actualization of the affordances embedded in place, and in self-expression including making changes to the place through play (Chatterjee, 2005).

However, the literature on access to play in situations of crisis has significant gaps in understanding the nature and significance of play in socially, culturally and environmentally diverse crisis contexts and the role of play in coping, adapting and building children's resilience in these situations of crisis. This paper will discuss the findings of the IPA's international *Access to Play in Situations of Crisis* research project with a view to filling these gaps.

Research Methods

This empirical research used mostly qualitative methods for observing and understanding children's play in crisis situations by directly working with children and other community members. To supplement the most important method—observing children at play in habitual places—six child-friendly tools were adapted from existing toolkits (Education Research Center, 2014; Save the Children Norway, 2008) that had been successfully used for engaging children in research in situations of crisis elsewhere. The child-friendly tools were as follows:

1. The Body Map: A participatory tool that helped to record diverse experiences of children by exploring how different senses and physical functioning were affected by the crisis.
2. Risk Mapping: A participatory tool that enabled children and youth to explore the risks they faced in their local communities, in this case the risks that threatened play.
3. Group Child-led Tours: The researchers were given a tour of the local area by children and told about children's own experiences of play in specific places.
4. Child-led Demonstrations of Play Experiences in a Simulated Environment: This tool was especially useful for describing and demonstrating play experiences in unsafe places that children frequented (with or without permission) and where it would have been too risky for the researchers to work with children.
5. Conversational Interviews with Children Using a Prop: This method was particularly useful in engaging with younger children to recount their play experiences in a playful way.
6. The Flower Map: A simple visual tool that explored which people provided support to the play of children and youth in any given context.

The methods that worked the best for capturing and understanding the experience of play were individual and group child-led walks in the local environment, informal conversations, and systematic observations of children at play. A detailed observation checklist was developed by IPA and shared with the researchers to enable systematic observations of children's play behaviors and play episodes in different physical settings and at different times. In addition, several key informant interviews were done by the field researchers in each site with parents, community leaders, program staff of community-based organizations working with children, youth- and child-led organizations, and local government officials wherever possible.

Research Contexts

The research was conducted in six different countries spread across Asia and the Middle East in places with a diverse range of situations of crisis (see Table 2). In each site, IPA partnered with local NGOs and/or academic researchers for fieldwork. Altogether the research engaged with children, communities, and organizations in 13 unique sites in six countries. The sampling strategy for this research was primarily convenience sampling—based on access and availability of children and informed consent from parents and children in each setting. Girls and boys ages 6 to 18 participated in this research. Typically, about 40 children participated in each of the 13 research sites or a total of about 500 children across the six research countries.

Given the large scope of this project, I will limit my discussion to the findings from the research contexts that represented two types of disasters: natural disasters and everyday crisis.

Table 2. The four research sites discussed in this paper

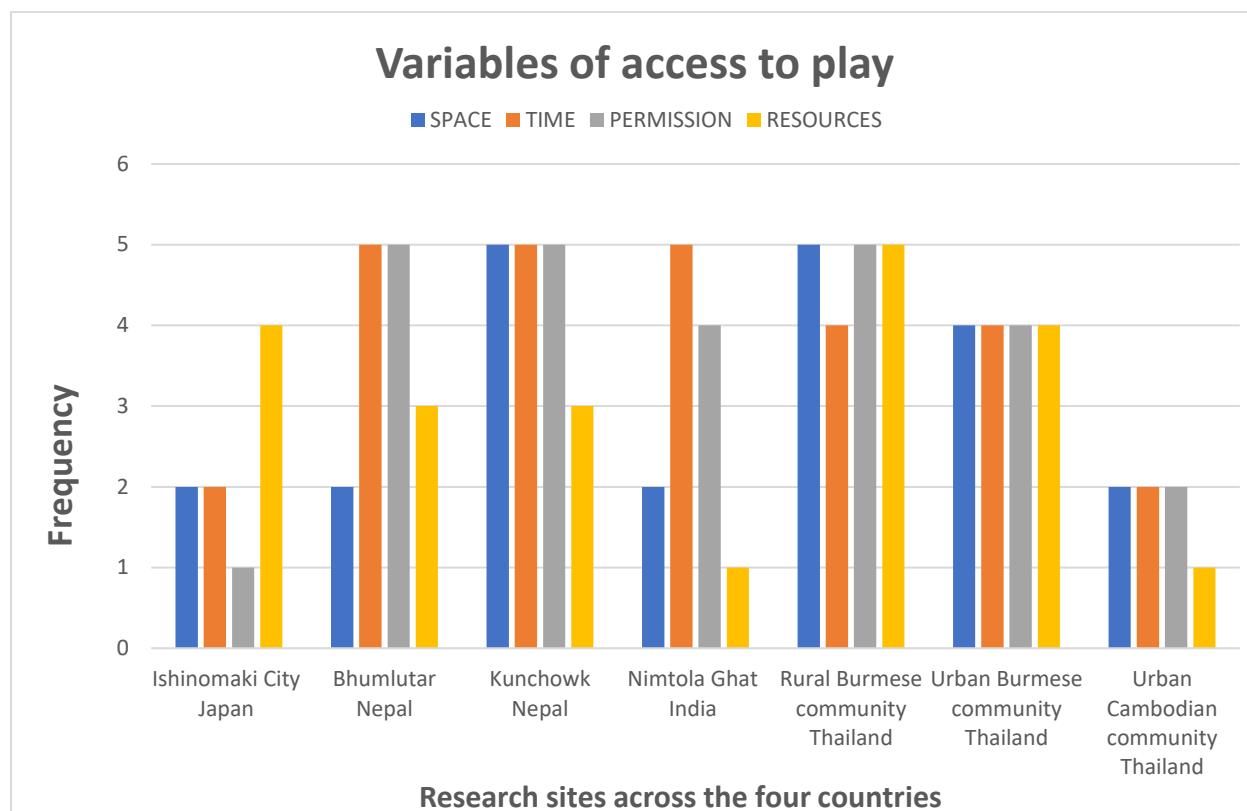
Crisis	Natural Disaster		Everyday Crisis	
APC research context	Japan 	Nepal 	India 	Thailand 
	Great East Japan Earthquake on March 11, 2011, with a magnitude 9.0, followed by a tsunami that triggered a crisis at the Fukushima Daiichi nuclear plant. This was a unique triple disaster never experienced anywhere else in the world.	The massive Gorkha Earthquake on April 25, 2015 in Nepal with a magnitude 7.8 followed by landslides in the Himalayas and aftershocks for days.	Slums are the de facto housing for the poor in Indian cities; earlier migrants live in legally recognized settlements whereas the later migrants live in illegal squats in hazardous locations without any legal access to basic services or social security.	Thailand has become a destination country for economic migration from neighboring countries, particularly from Myanmar, Cambodia and Laos. There are currently an estimated 3.25 million legal and illegal migrants living here.
Location of research sites	Ishinomaki City in Miyagi Prefecture	Bhumlutar village in Kavre district and Kunchowk village in Sindupalchowk district	Nimtala Ghat squatter settlement along a railway track in Kolkata	Two urban sites near Bangkok and one rural site near Burma border housing Burmese and Cambodian migrants.
Impact of crisis	Generated 26.7 million tons of debris and claimed 19,533 lives. The study site, Ishinomaki city in Miyagi Prefecture, was severely affected: 3,541 people died and 427 people are still missing. The earthquake triggered a tsunami that devastated the coastal areas. The sea wall to the Fukushima nuclear power plant failed and many people were evacuated from the area.	Both the selected districts were severely impacted with massive loss of life (3438 in Sindupalchowk and 318 in Kavre) and property (113,818 houses fully damaged in both districts). In Kavre, 548 government schools were damaged and 557 in Sindupalchowk. As Nepal is a small and poor country, the earthquake undid many developmental gains made over the years.	Every day is a crisis when living in poverty in an extremely hazardous living environment as an illegal resident. Poverty is passed on to successive generations as a direct consequence of the lack of opportunities for education, skills and vocational training ensuring that the population engages in lowest paid unskilled and semi-skilled work and kept in poverty.	Even though Thai law protects migrant workers, foreign migrant workers are in fact not protected or treated equally. There is widespread ethnic/race discrimination and marginalization against migrant workers in Thailand who work for longer hours and live in unhealthy and hazardous environments, often oppressed, threatened or reported to the police. Many migrant children born in Thailand are stateless as their births are not registered.

Findings

It is widely acknowledged that access to play involves the provision of space, time, resources or materials, and permission either directly from parents and caregivers or indirectly from the community in any given space at any or specific times. For the purpose of this paper, I have categorized the research sites on the basis of how they fare on these four access-to-play variables: space, time, permission and

resources. I used a five-point Likert scale to order the performance of the sites on the four variables (Figure 1).

Figure 1. Access to play variables in the research sites across the four countries discussed in this paper



While discussing access to play, this paper focuses on the physical environments of the research sites and the roles of place and space in promoting play. I compare the findings from the sites in Nepal and Japan based on their high and low performances on the access variables for natural disasters. Similarly, I also look at sites in Thailand and India based on their performance of the access variables to explore the importance of place and experiences of play in cultural contexts where migrant children are growing up in similar poverty-ridden and hazardous urban environments.

Access to Play after Natural Disasters in Nepal and Japan

The research engaged with two mega natural disasters, the Great East Japan earthquake and the triple disaster that it precipitated, and the Gorkha earthquake in Nepal. Japan is a high-income and predominantly urban country whereas Nepal is a low-income and predominantly rural country. In our analysis, despite the affluence of Japan and its greater resources for play, children in Japan in the aftermath of the disaster had less space, time and permission to play than in the village of Kunchowk in Sindupalchowk district of Nepal.

Barriers to Play after the Earthquakes

Japan is one of the most earthquake-prone countries in the world and also one of the best prepared for the disaster. Immediately after the 9.0 Great East Japan earthquake and the tsunami on the coast of the Tohoku area, people were evacuated to schools and large halls and many lived in these overcrowded evacuation centers for about six months. This was often followed by temporary housing, which was typically either a relative's house where children had no friends around, or government-built temporary housing that typically had no places for play. In some cases, if their houses were safe or only slightly damaged, children returned to their original housing after the evacuation center, but they often found that their friends had moved away or were still staying in temporary housing somewhere else.

There were many reasons why children could not play after the earthquake:

1. No permission to play: Children were not given permission to play either at the evacuation centers where an atmosphere of sadness and shock prevailed or later in the temporary housing for fear of disturbing peace in the area.
2. Trauma: Children spontaneously refrained from playing indoors in the atmosphere of loss and despair prevalent in the evacuation centers. Some of the girls (10-12 years) in this study, who had reportedly seen many dead bodies at the time of the tsunami, experienced Post Traumatic Stress Disorder. The social worker who had been supporting them through play work reported that only recently, six years after the disaster, were the girls able to talk about their experiences.
3. Loss of play spaces: The disaster destroyed spaces where the children used to play. Parks, playgrounds and schoolyards were lost to play because they were taken over for construction of temporary houses (Figure 2).
4. No planning for play in temporary housing: The surroundings of the temporary houses were covered in tarmac and extensively occupied by parked cars in many locations.
5. Loss of friends: Friends were separated as families stayed in evacuation centers and temporary housing in different locations. Thus, even if children wanted to go out and play, they had no friends around with whom to play.
6. Reduced free time: As many areas were depopulated, schools were shut down and integrated resulting in children commuting long distances by bus to new schools. With long commutes and the demands of formal education and private after-school programs, time was increasingly a constraint on free play.

Figure 2. Earthquake-devastated landscapes in Japan

(photo: Hitoshi Shimamura)

In contrast, Nepal had very limited resources to even rebuild homes and install critical infrastructure after the Gorkha earthquake. At the time of fieldwork in early 2017, most of the earthquake victims were still in the temporary shelters or in their old damaged houses. The recovery effort was delayed by political instability and money mismanagement. The rebuilding of homes was done by the affected people themselves with materials readily and cheaply available in the market. People also re-used the materials that they had salvaged while demolishing their homes.

In Nepal, immediately after the earthquake no children played due to the trauma of losing their homes, loss of their relatives and neighbors and disruption of their normal lifestyle. However, the younger children (6-10 years) seemed to enjoy living outdoors in makeshift shelters in close proximity to neighbors and friends. Parents actively encouraged them to play with their friends but asked them to stay away from unsafe places such as heavily damaged buildings and steep slopes. The adults

along with their older children focused on rebuilding their homes or attending to livelihoods. As a result, adolescents did not have access to play, recreation or free time, particularly older boys who were actively involved in rebuilding homes and coordinating relief materials for their families. The fear of theft and trafficking engulfed families and aid workers alike in Nepal and all child-centered disaster relief action was focused on survival and protection of children, particularly girls, rather than promoting the right to play.

The Nature of Play in the Aftermath of the Crises

In the evacuation shelters in Japan, access to play was limited as discussed above. Only when volunteers visited the evacuation shelters were children able to have different play experiences rather than playing video games all day. However, some of the children would go outside and forcefully hit debris with a stick to deal with stress, which, as poignantly expressed by one child, "allowed their stress to explode." This post-traumatic play (PTP)ⁱ was perhaps the only tool available to children to deal with their raw emotions.

In Nepal, young children's play unsurprisingly involved construction play as they were constantly exposed to rebuilding activities around them. Children would make miniature houses and household objects from the plentiful loose parts strewn around. When the schools in Nepal reopened after a month they became the primary places where children of all ages could play safely and engage in sports and other recreational activities.

Figure 3. Boys playing table tennis at a makeshift school after the earthquake



(photo: Yuwalaya)

Play-Based Coping and Resilience after the Disasters

Sneaking out to play emerged as the most-used coping mechanism by children in both the disaster contexts studied. In Japan, while staying in the evacuation center, boys and girls tried to seek out secret places such as a space under a bridge that they had no parental license to explore. They enjoyed catching fish in the river from this spot and cherished it as a place to spend some time in contact with nature and away from the stressful environment of the emergency shelter. The findings of this research suggest that even in times of crisis, children's drive for seeking out special or secret places and forming affective bonds (such as place friendship) with such places do not go away. If anything, these behaviors are heightened as coping mechanisms for dealing with the extraordinary stress after a disaster. One 12-year-old Japanese girl routinely went out by herself to her secret place and had a rare supportive mother who did not stop her. The girl had this to say about why this was important to her:

If adults rely on us to be ourselves, we can use our imagination to find a way to be, though we may sometimes be close to breaking when we challenge ourselves and do a dangerous thing, but it is better for us to have a chance to find a way by ourselves.

What this young adolescent is suggesting is that adults need to trust children's own inner resources and competencies to discover ways to cope with trauma while regulating their emotions. It also suggests a strong desire to own the process of recovery while moving forward. These thoughts are at the core of resilience thinking.

In Nepal, some boys admitted that their parents did not allow them to play outside fearing for their safety. They tried to convince their parents, failing which they sneaked out to play; because of lack of safe places to play they ended up playing in unsafe, vulnerable spots. Adolescent girls' coping strategies included stealthily playing games on mobile phones in the cracks of daily routines of household chores and studies. Some girls from Kunchowk village maintained a daily diary as encouraged by their school to vent their feelings and emotions.

Access to Play in the Context of Everyday Crisis in India and Thailand

The contexts of everyday crisis in this research deal with migrant laborers who have moved from rural to urban areas in India and Thailand, within and across borders in search of a better life for themselves and their children. The two cases discussed below—Nimtola Ghat in Kolkata, India and the Burmese community in a peri-urban location south west of Bangkok, Thailand—were chosen because of the similarities of their riverside locations and their high level of access to play despite significant environmental risks.

A community of Burmese migrants live around the Saphan Pla fish dock and fish marketing areas along the Chao Phraya River in Muang district in Samut Prakan province in Thailand (Figure 4).

Figure 4. Location map of Saphan Pla

The migrant workers who mainly service the fish market live in isolated hazardous pockets in rows of old buildings away from the general Thai community. The houses are on flood-prone land near the fish piers, and the area also has many abandoned buildings in bad condition. Living conditions are very crowded and unsanitary (Figure 5). There is only one way to access the community: through a dark swampy mangrove forest that is frequently under water.

Figure 5. The housing area where the migrants live

(photo: author)

The Nimtola Ghat squatters are located on either side of a railway track of the Circular Railway that encircles the city of Kolkata in India. To the east of the squatters is the river Hooghly, a distributary of the river Ganges before it enters the Bay of Bengal (see Figure 6). This low-lying settlement is located in Ward no. 20 of Kolkata and is popularly known as Nimtala Ghat after the eponymous crematorium near the squatters, where around 80 dead bodies are cremated daily. The present population of squatters are the third- or fourth-generation descendants of migrants who came to Kolkata, the most important city in eastern India, in search of work from the neighboring states of Bihar and Jharkhand. Due to a land shortage, these squatters, who have no basic services, are unlikely to be rehabilitated in secure housing by the local government. Yet, people continue to stay mainly because living there is free and the areas of work are close by.

About 26 trains pass on this single track in both directions between 8:00 am and 9:00 pm every day, often without a signal. The river is mighty and unpredictable particularly during a tidal bore when the sudden surge raises the water level with strong currents. There are 40 *ghats*ⁱⁱ along the river where daily bathing, washing, death rituals, idol immersion after Hindu religious festivals, and many other activities take place. These activities further pollute a river already polluted from industrial waste upstream. The rituals generate a lot of flowers, fruits and other waste that are discarded in the river and actively collected by the children in the squatter community mainly as loose parts for free play. The riverbank and the river are possibly the only large open spaces available in which children can play, and in which the community can engage in daily living activities as well as in socio-cultural and religious practices (Figure 7).

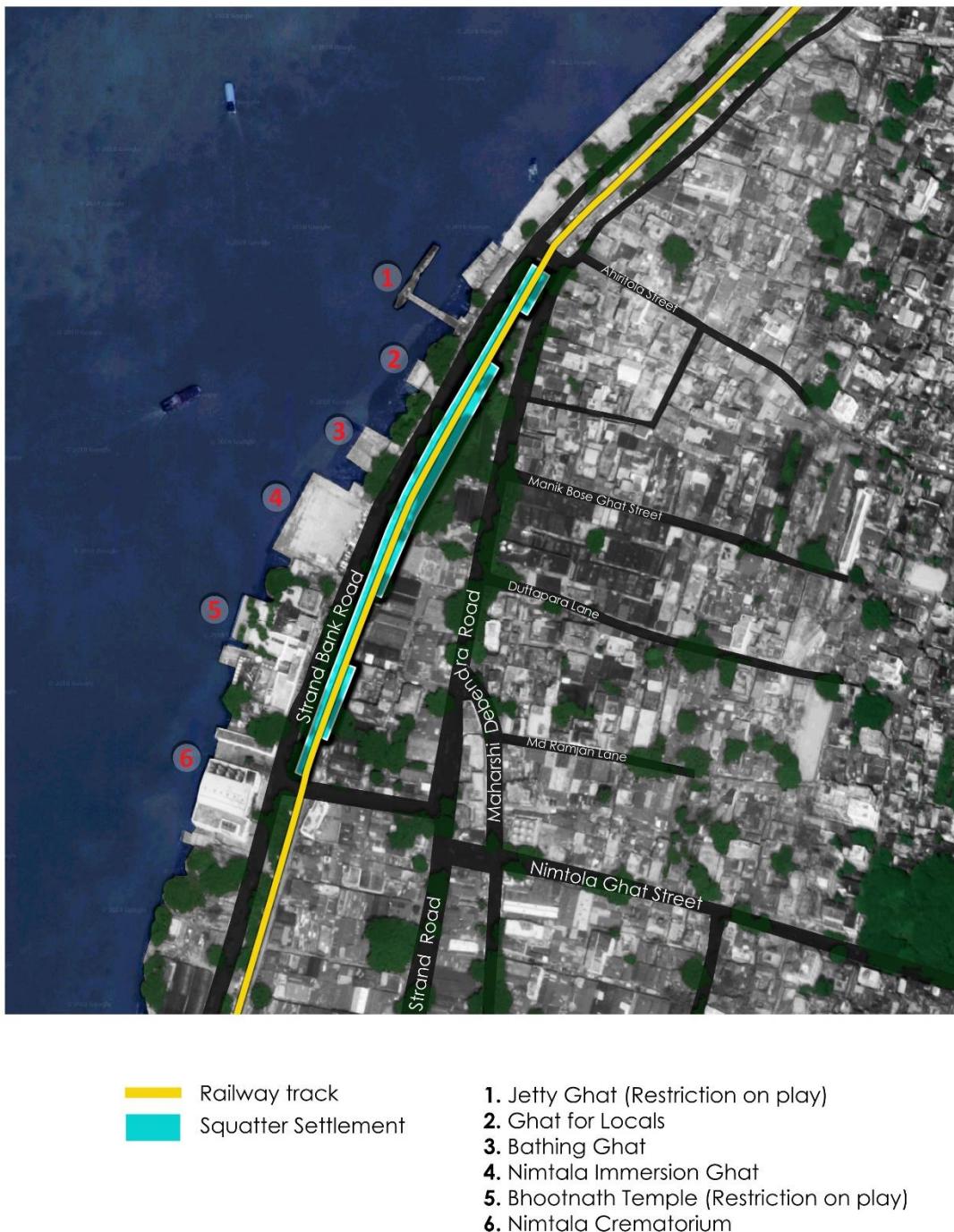
Figure 6. Location map of Nimtola Ghat

Figure 7. The riverbank as an important play space

(photo: Jhalapala)

The Nature of Play in Unsafe Places

The children in Thailand did recognize that many places in their local area were unsafe. However, they (especially boys 6-14 years) still played in these settings despite the risks as there were limited safe spaces for play. The community had two child-friendly safe spaces created by NGOs, which were primarily used by young children and their caregivers. The unsafe places mentioned by most children in Saphan Pla and the type of play in them are as follows:

- a) The fish dock: Crowded with fishing boats, and frequented by trucks, this place, despite being considered unsafe, is popular among children as they enjoy the pleasant breeze, which is a respite from their crowded homes. They hang out with friends and throw stones in the water, fish, and swim even though the area is especially unsafe for swimming.
- b) Parking space at the pier: This large flat space is mostly empty in the afternoon though trucks move in and out frequently. Children fully utilize

the affordances of the paved parking lot for biking, playing soccer, and running around. This space is also frequented by people from outside the community and sometimes fights break out here.

- c) Platform at the fish dock: Children come to this isolated area as they like climbing on a pile of loose, broken, wood planks.
- d) Abandoned buildings: Abandoned buildings are spread all over the community. Some of the buildings are quite isolated with many stray dogs in them. Children enjoy exploring these buildings, teasing the dogs, and playing hide-and-seek or imaginary games such as haunted house. Children also love visiting a deserted salt factory to play hide-and-seek with friends despite lack of permission to play there.

It is a lot of fun to play at the deserted salt factory. We chase one another and climb in and out of the salt bags. If adults approach, we would hide. When they leave, we will start doing it again (boy in Saphan Pla, age 7).

Children also frequently play in many other unsafe places in their environment such as the wastewater canal, the mangrove forest and the broken access bridge, which they love to cross back and forth (Figure 8). They dig into the soil and look for earth worms, or set out to catch insects, birds or fish in the unkempt natural places around them. Their drive for secret places lead them to explore deserted buildings, empty lands and hidden places that appear to hold some mystery and the possibility of thrilling experiences. Growing up with few resources, these children make use of whatever is available in their environment for play. They refill plastic bottles with water, sand or pebbles and tie the mouth with a rope for pulling, and in that way improvise racing games where the bottles become racing cars or tow trucks. They make water bombs by filling plastic bags with water from the many puddles around them and toss them at unsuspecting friends. Typically, boys make mud pellets for throwing at friends while girls play dolls with the filled plastic bags.

Figure 8. The bridge through the mangroves, the main access to the migrant housing in Saphan Pla



(photo: author)

In Nimtola Ghat, there are four main places where children play in their everyday environment: the railway track, the road between the railway track and the river, the river banks and the river. All these places are extremely unsafe for play or for children's independent mobility. However, as these children from squatter communities have no access to city parks and playgrounds because of their identity, these "un-child friendly" places are the only physical spaces they can claim for play.

The railway track: Usually younger children under 5 years and girls play on the tracks, as parents find it easier to supervise and keep an eye on them. Boys play at balancing on the tracks, pull handmade carts or make houses on the track. The girls play with dolls or pretend cook with stones and leaves (Figure 9). As they grow older, children move to the river bank to play away from adult supervision.

Figure 9. Young children playing on the tracks

(photo: Jhalapala)

The road between the railway track and the river: Games played by children, mainly boys, on the road are spinning tops; cycling; skipping; *Bagbandi* (a two-player strategy board game involving a tiger hunt); and dragging, pushing and riding self-made wheeled toys. These games are well-suited for an even, flat surface and the children fully utilize the affordances of the flat metal road in playing them.

The river bank: The many ghats on the riverbank are the most popular place for play for both boys and girls living in the squatter communities. Boys play spin-the-top individually and in groups as a competition game. Only a few types of play such as sculpting with mud, playing with pet animals, and *Bagbandi* are played by both boys and girls. Girls mostly engage in pretend play, imaginative and role play, like *Biye Shadi* (marriage game) and *Pujo Pujo* (Hindu ritualistic worship game). These are typically played in the women's bathing ghat, which is a secluded, gendered space. For these pretend games girls salvage materials from the river, such as flowers, garlands, fruits, and the like, and exactly enact marriage and worship rituals that commonly take place in the ghats. They also collect mud from the river and make henna-like tattoos on their hands. Girls also commonly play cooking. There is little difference in the processes of pretend cooking and real cooking as the same utensils are used for both and same procedures followed—except in real cooking edible ingredients are used. The boundaries of work and play, real and imaginary worlds fluidly overlap. The nature of the girls' play on the river bank suggest that play is an important tool for appropriating and transforming the symbolic cultures of young people's worlds and of socialization into cultural belief systems (Lester & Russell, 2010).

The river: Growing up next to a river, children appear to be preoccupied with fashioning objects that could float on it. Floating on the river, in a handmade raft (called a "trawler" by children) is a game played by boys aged 7-14 years, sometimes joined by girls. This is by far the most ingenious and risky game the children play and one that requires much planning, resource mobilization and skillful execution. The children make the rafts themselves by stitching large pouches out of plastic mats collected from the crematorium. The dead bodies are laid on these mats before cremation and later the mats are discarded. Children stuff the mat pouches with styrofoam pieces, which they collect a few times a week from two fish markets about a kilometer away. Once made, they first take these rafts for a test run along the banks (Figure 10) and upon satisfactory trial runs, they take the rafts to the middle of the wide river during daytime and sometimes after sunset. They do not use any safety gear, but they seem to be well aware of the tide timings when the river swells up. During the research, children shared that they only fear the river dolphins who sometimes overturn the rafts.

Figure 10. A handmade "trawler" in Nimtala Ghat



(photo: Earth Care)

Managing Risks in High-Risk Environments

Growing up in very high-risk environments with persistent everyday hazards in India and Thailand, children's and the community's notion of safety was relational. In Nimtala Ghat, Kolkata, children and families consider the train track a lesser hazard than the river. Parents feel children are safer playing near home than beyond where parents cannot keep an eye on them. In fact, parents start acclimatizing their children to the harsh environment from a young age; infants are

laid down with their heads on the track to feel the vibration of train movements so that they know in their blood when to get out of harm's way. Yet the river is preferred by children as it affords contact with nature, openness and freedom. Customary rules are devised to keep children safe such as not allowing the girls to go on the "trawler" with the boys to the middle of the river or across the river. Boys have no parental license to go to the riverbank after dark as the riverfront gets taken over by adults and older boys for gambling, drinking and taking drugs. However, rules are often broken and boys do sometimes take their rafts out at night to the middle of the river to have a little celebration as they have seen many adults doing at night.

Discussion

Across the situations of crisis in the four countries discussed in this paper, children played despite lack of access to safe play spaces. The nature of play was to a large extent shaped by the age, gender and ability of the child, the affordances of the space for play, the cultural and social context of the community, the time available for play and the level of parental permission for playing in certain places and at certain times. The freest play was witnessed in children under 14 years in the Burmese migrant communities in Thailand, amongst the squatters beside the railway track in Kolkata and the earthquake-hit villages of Kunchowk in Nepal.

For children in Japan, the long wait to return to a safe home was fraught with uncertainty and stress, especially since free play was forbidden. In the immediate aftermath of the earthquake, the nature of play was aggressive as children living in crowded emergency shelters used play as a tool for "spitting out" their stress and for regulating strong emotions linked to loss. Later they sought out secret places to play, typically seeking out isolated natural areas, as play was still forbidden in temporary housing. Play became a subversive act through which adult control was challenged, and play became an important expression of children's agency and resilience in uncertain times and under adverse circumstances. In Nepal, when parental permission for play was made available to pre-adolescent children, they constructed miniature versions of their homes and village using salvaged loose parts alongside the actual community-led reconstruction activity, perhaps as a means to speedily recreate their lost world. Even in the context of devastating loss and destruction after major disasters, this research shows that free play was the most meaningful way by which children transacted with their environments.

In Saphan Pla and Nimtola Ghat, children and youth live in contexts of limited regulations, time constraints and adult supervision, and with almost no access to formal play spaces or commercial games and toys. Consequently, they were seen to be very active users of every conceivable and accessible public space even when children knew them to be unsafe—exploring, actualizing the affordances of these places and expressing themselves freely through play. The immense richness of poor migrant children's free play, living in poverty in unsafe and inadequate environments, spanned across many play types and seem to suggest that these children, despite contrary dominant narratives, enjoy a form of childhood that is privileged with spontaneity, creativity, play, freedom of movement and emotional expressions. These are the very qualities that we seek to recover or reinstate when

we lament the loss of childhood in the modern consumerist society. What emerges from the myriad forms of culturally embedded, self-structured and self-organized deep play of children as witnessed in Saphan Pla and Nimtola Ghat is an image of children as resilient social actors whose spontaneous and creative activities outdoors expand the vision of risks and social possibilities of play itself.

All four cases discussed in this paper show that children were able to transact with their environments and develop meaningful relationships with peers and places through play, whether after natural disasters or in the context of everyday crisis. Factors that contributed to play included having numerous spaces with rich environmental affordances with varying degrees of risk, which children learned to manage, and having fewer restrictions on children's time. We found that having supportive adults (or at least adults that did not prohibit play) also contributed to play, particularly for girls. However, this paper focused on children's agency in relation to access to play, consciously refraining from emphasizing the role of adults in supporting play. Under these conditions, play emerged as a living resource for children that allowed them to bond with places and create parallel worlds for escaping the harsh and scary real one.

In almost all the contexts, when children were asked what play meant to them, the overwhelming theme appeared to be that play allowed them to have "fun, friendships and freedom." The myriad forms of play witnessed in these different situations of crisis across the world speak to children's capacity to overcome adversity, survive stress and rise above disadvantage (the very definition of resilient children by Rutter (1979)) while partaking of the pleasure of childhood. However, as Luthar and Goldstein (2004, p. 503) noted,

if children are faced with continuing and severe assaults from the external environment, then they simply cannot sustain resilience adaptation over time—regardless of how much they are helped to believe in themselves, how intelligent they are, or how well they learn to regulate their emotions.

Reducing risks in children's lives and increasing protective factors while providing access to free play is a challenge. But it is a challenge that duty-bearers of children must accept to create the conditions for children's optimum well-being and development.

Endnotes

- i. Post-traumatic play (PTP) has been described as play with a driven, serious and morbid quality (Gil, 1998; Nadar & Pynoos, 1991; Terr, 1983; Varkas, 1998) and characterized by repetitive unresolved themes, increased aggressiveness and/or withdrawal, fantasies linked with rescue or revenge, reduced symbolization and concrete thinking (Cohen, Chazan, Lerner, & Maimon, 2010).
- ii. *Ghat* is a place at the edge of the river typically with a wide set of steps descending to the river to provide access to the water for bathing and rituals.

Acknowledgements

I would very much like to thank IPA for giving me the opportunity to lead this unique international research. However, this research would not have been possible but for the passionate contributions of the wonderful collaborators across many countries including in-country research partners: Beyond Association, Lebanon; Child Friendly Asia Pacific Network, Japan; Child and Youth Media Foundation (CYMF), Thailand; Dr. Mine Gol GÜVEN, Boğaziçi University, Turkey; Earth Care and Jhalapala, India; and Yuwalaya, Nepal, and the thoughtful comments and guidance of the expert reviewers: Theresa Casey, Louise Chawla, Claire O'Kane and Helen Woolley.

Dr. Sudeshna Chatterjee works across the world on research, planning and development projects related to children and their environments, safe communities, participatory community development, environmental design and climate change adaptation of cities. Trained as an architect and urban designer, Sudeshna has a Ph.D. in Community and Environmental Design from North Carolina State University, USA. Sudeshna has led several research-based urban planning and design projects, the most notable of which is her leadership of the urban design of the new capital city of the Indian state of Chhattisgarh, Naya Raipur. Sudeshna's passion for making cities child-friendly led her to setting up the non-profit organization Action for Children's Environments (ACE), which engages in research, advocacy, planning and design to improve the living environments of children. Under her leadership, ACE has worked globally with many organizations such as UNICEF, Save the Children, International Institute for Environment and Development (IIED), International Play Association (IPA), and Bernard van Leer Foundation on many child-centered urban programming and climate change adaptation projects as well as on right to play. Sudeshna currently serves on the global executive board of IPA in addition to being an editorial advisory board member of the International Journal of E-Planning Research (IJEPR) and the international journal of Children, Youth and Environments (CYE). She has published widely on topics related to children and urban environments.

References

Action for the Rights of Children (ARC) (2009). Resource pack: *Foundation module 7—Psychosocial support*. Swedish Agency for International Development Cooperation and European Commission Humanitarian Aid Department. Retrieved from <https://resourcecentre.savethechildren.net/library/arc-foundation-module-7-psychosocial-support>

Benard, B. (1991). *Fostering resiliency in kids: Protective factors in the family, school, and community*. Portland, OR: Western Center for Drug-Free Schools and Communities.

Benard, B. (2004). *Resiliency: What we have learned*. San Francisco: WestEd.

Boyden, J. & Mann, G. (2005). Children's risk, resilience, and coping in extreme situations. In M. Ungar (Ed.), *Handbook for working with children and youth: Pathways to resilience across cultures and contexts* (pp. 3-25). Thousand Oaks: Sage Publications.

Bull-Kamanga, L., Diagne, K., Lavell, A., Leon, E., Lerise, F., MacGregor, H., . . . Reid, H. (2003). From everyday hazard to disasters: The accumulation of risk in urban areas. *Environment & Urbanization* 51(1), 193-204.

Chatterjee, S. (2007). Children's role in humanizing forced evictions and resettlements in Delhi. *Children, Youth and Environments*, 17(1), 198-221. Retrieved from <http://www.jstor.org/action/showPublication?journalCode=chilyoutenvi>

Chatterjee, S. (2006). *Children's friendship with place: An exploration of environmental child friendliness of children's environments in cities* (doctoral dissertation). North Carolina State University, Raleigh, North Carolina.

Chatterjee, S. (2005). Children's friendship with place: A conceptual inquiry. *Children, Youth and Environments*, 15(1), 1-26. Retrieved from <http://www.jstor.org/action/showPublication?journalCode=chilyoutenvi>

Chawla, L. (2014). Children's engagement with the natural world as a ground for healing. In K. G. Tidball, & M. E. Krasny (Eds.), *Greening in the red zone: Disaster, resilience and community greening* (pp. 111-124). New York: Springer.

Chawla, L. (1992). Childhood place attachments. In A. Altman & S. M. Low (Eds.), *Place attachment* (vol. 12). New York: Plenum.

Coffman, S. (1998). Children's reactions to disaster. *Journal of Paediatric Nursing*, 13(6), 376-382.

Cohen, E. (2006). Play and adaptation in traumatized young children and their caregivers in Israel. In L. Barbanel & R. Sternberg (Eds.), *Psychological interventions in times of crisis* (pp. 151-180). New York: Springer Publishing Company.

Cohen, E., Chazan, S., Lerner, M., & Maimon, E. (2010). Posttraumatic play in young children exposed to terrorism: An empirical study. *Infant Mental Health Journal*, 31(2), 159-181. <http://dx.doi.org/10.1002/imhj.20250>

Education Research Centre (2014). *Steps to engaging children in research, volume 2: The research toolkit*. Brighton: University of Brighton. Retrieved from <http://www.bernardvanleer.org/steps-to-engaging-young-children-in-research>

Gil, E. (1998). *Play therapy for severe psychological trauma*. New York: Guilford Publications, Inc.

Gray, P. (2011). The decline of play and the rise of psychopathology in children and adolescents. *American Journal of Play*, 3(4), 443-463.

Goodenough, E. (2003). *Secret spaces of childhood*. Ann Arbor: University of Michigan Press.

Hart, R. (1979). *Children's experience of place*. New York: Irvington Publishers.

Hinton, R. (2000). Seen but not heard: Refugee children and models for intervention. In C. Panter-Brick & M. T. Smith (Eds.), *Abandoned children* (pp.199–212). Cambridge: Cambridge University Press.

Humanitarian Coalition (n.d.) What is a humanitarian emergency? Retrieved from <http://humanitariancoalition.ca/mediaresources/factsheets/what-is-a-humanitarianemergency>

Kyttä, M. (2003). *Children in outdoor contexts: Affordances and independent mobility in the assessment of environmental child friendliness*. Helsinki: Helsinki University of Technology.

Lester, S. & Russell, W. (2010). *Children's right to play: An examination of the importance of play in the lives of children worldwide*. Working Paper No. 57. The Hague, The Netherlands: Bernard van Leer Foundation

Luthar, S., & Goldstein, A. (2004). Children's exposure to community violence: Implications for understanding risk and resilience. *Journal of Clinical Child & Adolescent Psychology*, 33(3), 499-505.

Mann, G. (2003). *Family matters: The care and protection of children affected by HIV/AIDS in Malawi*. Stockholm: Save the Children Sweden.

Moore, R. C. (1986). *Childhood's domain: Play and place in child development*. London; Dover, N.H.: Croom Helm.

Nadar, K., & Pynoos, R. (2017). Play and drawing techniques as tools for interviewing traumatized children. In C. Schaefer, K. Kitlin, & A. Sangrund (Eds.), *Play diagnosis and assessment* (pp. 375-389). New York: Wiley.

Punamaki, R. L. (1987). Content of and factors affecting coping modes among Palestinian children. *Scandinavian Journal of Development Alternatives*, 6(1), 86-98.

Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In M. Kent & J. Rolf (Eds.), *Prevention of psychopathology Volume III: Social competence in children* (pp. 49-74). Hanover, New Hampshire: University Press of New England.

Save the Children Norway (2008). *A kit of tools: For participatory research and evaluation with children, young people and adults*. Save the Children Norway. Retrieved from https://resourcecentre.savethechildren.net/sites/default/files/documents/kit-of-tools_1.pdf

Sugar, M. (1989). Children in a disaster: An overview. *Child Psychiatry and Human Development*, 19(3), 163-179.

Swart-Kruger, J. (2002). Children in a South African squatter camp gain and lose a voice. In L. Chawla (Ed.), *Growing up in an urbanising world* (pp. 111-133). London: Earthscan Publications.

Terr, L. C. (1983). Chowchilla revisited: The effects of psychic trauma four years after a school-bus kidnapping. *American Journal of Psychiatry*, 140(12), 1543-1550.

Twigg, J. (2007) *Characteristics of a disaster-resilient community: A guidance note*. London: DFID Disaster Risk Reduction Interagency Coordination Group.

United Nations (1989). *Convention on the Rights of the Child*. Treaty Series, 1577, 3.

United Nations International Strategy for Disaster Reduction (UNISDR) (2011). UNISDR says the young are the largest group affected by disasters. Retrieved from <http://www.unisdr.org/archive/22742>

United Nations Committee on the Rights of the Child (2013). *General comment No. 17 (2013) on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts (art. 31)*.

United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) (2017). *World humanitarian data and trends 2017*. UN Office for the Coordination of Humanitarian Affairs. Retrieved from <http://interactive.unocha.org/publication/datatrends2017/>

Varkas, T. (1998). Childhood trauma and posttraumatic play. *Journal of Analytic Social Work*, 5(3), 29-50.

Wisner, B., Cannon, T., David, I., & Blakie, P. (2014). *At risk: Natural hazards, people's vulnerability and disasters* (2nd ed.). London: Routledge.

Yates, T., Egeland, B., & Sroufe, A. (2003). Rethinking resilience: A developmental process perspective. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 243–266). Cambridge, UK: Cambridge University Press.