Child Abuse & Neglect 79 (2018) 85–97

Contents lists available at ScienceDirect

Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg

Multiple traumas and resilience among street children in Haiti: Psychopathology of survival

Jude Mary Cénat[a,*], Daniel Derivois[b], Martine Hébert[a], Laetitia Mélissande Amédée[a], Amira Karray[c]

[a] Université du Québec à Montréal, Montréal, Québec, Canada
[b] Université de Bourgogne Franche-Comté, Laboratoire de Psychologie Psy-Drepi, EA 7458, France
[c] Aix-Marseille Université, LPCPP, EA 3278, France

ARTICLE INFO

Keywords:
Multiple traumas
Resilience
Coping
Street children
Haiti

ABSTRACT

In Haiti, as in several developing countries, the phenomenon of street children has become a major public health issue. These children are often victims of traumas and adverse life events. This article aimed to investigate traumas experienced by street children and their coping and resilience strategies used to deal with adversities in a logic of survival, relying on a mixed method approach. A group of 176 street children, aged 7–18 (n = 21 girls), recruited in Port-au-Prince, completed measures assessing PTSD, social support and resilience. Semi-structured interviews were conducted to document traumatic experiences, factors related to resilience and coping strategies. After performing statistical analyses to evaluate prevalence and predictors associated with PTSD, and level of social support satisfaction and resilience, qualitative analysis using a grounded theory approach was conducted. Results showed that street children experienced multiple traumas such as neglect, maltreatment, psychological, physical and sexual abuse. However, they also showed self-efficacy to face their traumatic experiences and few of them (less than 15%) obtained scores reaching clinical rates of PTSD, while a large majority presented a level of resilience between moderate to very high. A socio-ecological model of multiple traumas and a model of coping, survival and resilience strategies are conceptualized. Data provide a better understanding of the traumas experienced by street children, their coping and resilience strategies. Results underscore ways to develop practices to offer psychological support, social and vocational integration based on the real needs of these children, in a perspective of social justice.

1. Introduction

While in Latin America the phenomenon of street children began in the late 1970s and early 1980s (Glauser, 2013), it began, in Haiti, in the aftermath of the Duvalier dictatorship in 1986 and has increased significantly since the 1990s (Lubin, 2007). Street children refer to any person below the age of majority for whom the street (including unoccupied dwellings) has become their living place and/or their source of life, poorly protected and monitored by adults (United Nations Human Settlements Programme (UN-Habitat), 2007). Although there is no unanimity on this definition, street children are part of the population often considered as the most vulnerable in the world (Bony, 2016). Although their presence on the streets is often portrayed as a symbol of family ties' dislocations (Bony, 2016; Lubin, 2007), behind this epiphenomenon stand complex sociopolitical events, adverse living conditions, impoverishment of families, as well as multiple and cumulative traumas (Derivois, Cénat, Joseph, Karray, & Chahraoui, 2017;

* Corresponding author at: Department of Sexology, Université du Québec à Montréal, C.P. 8888, Succursale Centre-Ville, Montréal, Québec, H3C 3P8, Canada.
E-mail addresses: cenat.jude-mary@uqam.ca, judemarycenat@yahoo.fr (J.M. Cénat).

https://doi.org/10.1016/j.chiabu.2018.01.024
Received 16 June 2017; Received in revised form 19 January 2018; Accepted 28 January 2018

Gwanyemba, Nyamase, & George, 2016; Pandey, Dutt, Nair, Subramanyam, & Nagaraj, 2005). One of the constants observed in countries where children live on the streets is that the decision to do so is almost always made after a major traumatic triggering event and after successive traumatic experiences, although often accompanied by significant economic problems (Gwanyemba et al., 2016; United Nations Children's Fund (UNICEF), 2012). These children, who must be distinguished from those who work on the street and return at night to the family home, have often lived in multiple consecutive vulnerable contexts before definitively settling on the street (Fisch & Truglio, 2014).

Studies conducted among street children have shown that in addition to the economic and social insecurity experienced, they have often been the victims of neglect, psychological, physical and sexual abuse and sexually transmitted infections including HIV (Bony, 2016, Lubin, 2007; Shrivastava, Shrivastava, & Ramasamy, 2014). Nevertheless, as Asante (2016) points out, life on the streets exposes children to even more vulnerability and traumas. In addition to health-risk behaviors such as prostitution, alcohol and drug use, other traumas such as rape, beatings, injuries, kidnapping and social stigmatization can be part of their daily lives (Asante, 2016; Gwanyemba et al., 2016; International Medical Aid, 2011). Apart from being exposed to everyday violence, they can also come to display behaviors such as violence and delinquent acts (Lubin, 2007; Lucchini, 2001). Based on the experiences of street children, studies have shown that living on the street is a major public health issue that has social, physical and psychological dimensions (Asante, 2016; United Nations Children's Fund (UNICEF), 2016).

In the case of Haiti, street children have experienced other significant adverse life events and not only interpersonal traumas. They also face natural disasters that hit the country every year (Cénat, 2014). From 2004 to 2016, Haiti was hit by a dozen major cyclones and tropical storms including Jeanne, Ike, Faille, Gustave and more recently Matthew, causing hundreds or even thousands of victims each time (Cénat, 2014; Derivois et al., 2017). Living on the streets, these children are even more vulnerable because they have to cope with the torrential rains and winds accompanying these cyclones without having a safe place to use as a shelter. Since the earthquake of 2010, the seismic risk has become very present in the minds of the population (Cénat, 2014). While street children were not the most affected since they lived on the streets and were less at risk of being under the concrete of houses during the earthquake, they were not spared the events that followed (International Medical Aid, 2011). On the contrary, a large part of the population had become homeless and they had to live with the corpses strewing the streets of the affected cities (Cénat, Derivois, & Karray, 2017).

Even though behind this serious societal issue hide complex, multiple and cumulative traumas, studies conducted in Haiti have shown that street children present a lower prevalence (less than 20%) of post-traumatic stress disorder (PTSD), higher satisfaction with the sparse social support received and a higher level of resilience than children and adolescents (more than 40% of them reached clinical levels of PTSD symptoms) living with their parents (Cénat, 2015, 2014; Derivois, Mérisier, Cénat, Val, & Castelot, 2014; Derivois et al., 2017). Other studies carried out following the earthquake have shown that street children appear to display an ability to take advantage of links in their social-ecological environment to cope with their experiences on the street (Joseph & Derivois, 2016; Karray, Derivois, Brolles, & Wexler Buzaglo, 2017). However, in their case, should we talk about resilience, self-efficacy, and adaptation to life on the street, numbing of trauma effects or survival strategies? How can their life history, their traumatic experiences and socio-ecological environment help us understand the low prevalence of PTSD and the high level of resilience?

To answer these questions, this study proposes a conceptualization based on a socio-ecological theory (Bronfenbrenner & Morris, 1998), on self-efficacy (Bandura, 1982) and a socio-ecological approach of resilience (Cénat, Derivois, & Merisier, 2013; Ungar, Ghazinour, & Richter, 2013). First, it is proposed that these children and adolescents experienced traumas from their different socio-ecological living environments (family, foster family, centers and streets). Then, their specific and global strategies to deal with interpersonal and non-interpersonal traumas arise from many factors, both internal and external to themselves, that the socio-ecological model helps to better identify (Bronfenbrenner & Morris, 1998). To explore the socio-ecological model of the street children traumas and resilience, we collected information about their families, the reasons they lived on the streets, as well as their experiences of trauma on the streets. Similarly, in an integrative way, the analysis is based on their sense of efficacy (Bandura, 1982) to deal with traumas and the socio-ecological definition of resilience (Ungar et al., 2013) to better identify contextual, social and environmental factors (Cénat et al., 2013), as well as adaptive and maladaptive coping strategies. To better address these issues, the data are analyzed using a grounded theory approach (Perrin, Meiser-Stedman, Smith, & Yule, 2005).

Using these theoretical frameworks, the objectives of this study were to 1) document interpersonal and non-interpersonal traumas experienced and the prevalence of post-traumatic stress disorder (PTSD) among street children and adolescents in Haiti 2) to explore coping and resilience level and strategies they set up to deal with adversities in the logic of survival, relying on a mixed method approach. Indeed, the use of mixed methods embedded design with concurrent data collection seems more appropriate to meet the objectives of this study to provide various perspectives (Teddlie & Tashakkori, 2003). It is important to remember that in an embedded design, the goal is not to integrate the results into a global interpretation, but to answer different complementary research questions (Creswell & Plano Clark, 2010).

2. Methods

2.1. Design and sampling

We mixed quantitative and qualitative methods using an embedded concurrent design by collecting data simultaneously, in a complementary perspective (Creswell & Plano Clark, 2010; Teddlie & Tashakkori, 2003). The mixed methods allows to investigate the street children phenomenon in both etic and emic perspectives (Berry, Poortinga, Segall, & Dasen, 2002). First, the quantitative phase allowed to examine the amplitude of the factors and consequences associated with the traumas experienced in terms of PTSD,

as well as the level of the resilience of the participants (using an etic approach with standardized measures). Then, the qualitative phase allowed to better identify the different forms of traumas experienced by the participants, their subjective experiences and the mechanisms and factors associated with their resilience process (using an emic approach based on children's internal feelings and perspectives). Data from each phase are then used in a complementarity perspective.

A sample of 176 children and adolescents (including 21 girls) aged 7–18 (Mean age = 13.69, SD = 2.24) who were living on the streets of six municipalities of Port-au-Prince (with an average number of years on the street of 5.17; SD = 4.13) was recruited between June 2012 and June 2014. They were contacted directly on the streets and in seven open rehabilitation centers (where they come to eat or to sleep without obligation). In the case of the youths recruited in rehabilitation centers, they were introduced to the research assistants by the centers' supervisors. The following inclusion criteria were applied: (*i*) aged between 7 and 18; (*ii*) had lived through the earthquake in Port-au-Prince; (*iii*) were still living on the streets even if they returned to a shelter at night to sleep.

The quantitative phase comprised all 176 participants. For this phase, four research assistants, who received a one-day training in the use of the tools, completed the questionnaire for the participants. For the qualitative phase, 48 children and adolescents (including 13 girls) were interviewed (Mean age = 13.1 years, SD = 2.86). The youths were selected on a voluntary basis. They were informed of the opportunity to be interviewed after completing the questionnaire and all those who wanted to participate were interviewed in a second meeting. Individual semi-structured interviews were conducted, according to a preset grid and lasted between 18 and 43 min. The interviews were conducted in Haitian Creole by the first author accompanied by two research assistants. Participants were asked to describe the events that led them to settle on the street, and any trauma experienced within their families, their foster families (i.e. host families where children are placed in domesticity by parents), the street and other contexts. The interview grid consisted of 13 basic questions (e.g. Please give us some examples of problems you have experienced on the street and then explain to us how you dealt with them?; Tell us, living on the street, how you experienced the earthquake, cyclones, torrential rains? Tell us about the relationships you have with other street children? Tell us how you get to grow in the difficult circumstances of the street?) to which were attached clarifying questions (e.g. How can the relationships you have with other street children help you cope with the challenges of the street?) asked to the participants, if pertinent. The children signed the informed-consent form and for those met in centers, their supervisors also signed it. This option was recommended by the Ministry of Social Affairs, which has responsibility for street children and their rehabilitation, via the IBESR (Institut du Bien-Être Social et de la Recherche – Government Institute for Social Welfare and Research), because most of the children were either orphans or wished to avoid any contact with their relatives. Ethics approval was obtained from the University of Lyon 2 (France), the State University of Haiti Board, the Ministry of Public Health and Population and the Haiti Government Institute for Social Welfare and Research (IBESR) board.

2.2. Measures

A panel of four experts from the Linguistics Faculty of State University of Haiti translated all the questionnaires in Creole using a translation and back-translation method. The research assistants read and filled the questionnaires for the children because many of them could neither read nor write. The questionnaire assessed sociodemographic data, as well as violence endured in family context and on the street and other specific variables that are described below.

2.2.1. Life Events Checklist subscale

The Life Events Checklist subscale of the Clinician-Administered PTSD Scale 1995 (Blake et al., 1995) evaluated 16 adverse life events that the children might have experienced (e.g. physical abuse, sexual assault, motor vehicle accident). In this study, we asked them to respond for life events they had experienced before and after the earthquake. This subscale usually presents adequate internal consistency (Gray, Litz, Hsu, & Lombardo, 2004) elsewhere and in Haiti (Cénat & Derivois, 2015). In our sample, Cronbach alpha was 0.81 for the scale completed in relation to events before the earthquake and 0.79 after.

2.2.2. Traumatic exposure scale (TES)

This 19-item dichotomous scale (yes/no) evaluated the traumatic exposure to the earthquake. The items relate to the experience of the earthquake and how it affected their lives (e.g., *You were injured*; *You saw dead bodies on the ground*). The TES had been previously used in Haiti, with good reliability (Cénat & Derivois, 2015). Cronbach's alpha was 0.73 in our sample.

2.2.3. Peritraumatic distress inventory (PDI)

Developed by Brunet et al. (2001), the PDI is a 13-item scale that was used to assess the peritraumatic distress related to the earthquake (e.g., *I felt I was one the verge of losing control of my emotions*). The PDI demonstrated good internal consistency among children and adolescents in Haiti (Blanc, Bui, Mouchenik, & Derivois, 2015; Cénat & Derivois, 2015). In our sample, Cronbach alpha was 0.83.

2.2.4. Children's revised impact of event scale (CRIES-13)

The CRIES is a 13-item scale items (e.g., *Do you think about [the event] even when you don't mean to*?) that was inspired by the Impact of Event Scale (Weiss & Marmar, 1997). The 13 items are rated on a 4-point scale (n*ot at all, rarely, sometimes, often*) and scored 0, 1, 3 and 5. It is widely used to evaluate PTSD among children and adolescents (Perrin et al., 2005) and presents good internal consistency (Chen, Zhang, Liu, Liu, & Dyregrov, 2012). It has been confirmed that a score of 30 or above is the most discriminating cutoff point for screening PTSD (Perrin et al., 2005). In our sample, Cronbach alpha was 0.80. They completed the CRIES considering all the difficult life events experienced and not specifically to the earthquake.

2.2.5. Social support questionnaire (SSQ-6)

The SSQ is a 6-item scale that we used to assess social support both in terms of number and satisfaction (Sarason, Levine, Basham, & Sarason, 1983; Sarason, Sarason, Shearin, & Pierce, 1987). Six situations are presented and participants are invited to report perceived availability of support (the number they can count on) and their level of satisfaction of the received social support. The social support satisfaction subscale presents a 6-point scale ranging from 1 (very dissatisfied) to 6 (very satisfied) with a score between 6 and 36. The SSQ satisfaction subscale presented adequate internal consistence in Haiti (Cénat & Derivois et al., 2014). In our sample, Cronbach alpha was 0.78.

2.2.6. Resilience scale (RS)

The RS is a 25-item scale (Wagnild & Young, 1993) that was validated in creole among children and adolescents in Haiti (Cénat & Derivois et al., 2014). The items are rated on a 7-point scale ranging 1 (strongly disagree) to 7 (strongly agree) with a score between 25 and 175. A score of 131 or above is considered of moderate to very high (Wagnild, 2013). The RS presented adequate psychometric properties in Haiti and elsewhere (Cénat & Derivois, 2014; Cénat, 2015; Wagnild & Collins, 2009). In our sample, Cronbach alpha was 0.83.

2.3. Data analysis

2.3.1. Statistical analysis

Statistical analyses were carried out using the Statistical Package for Social Science (SPSS) – version 22, for Windows. We first conducted *t*-tests and ANOVA to analyze differences between groups for PTSD, social support and resilience scores. Then, prevalence of each variable was computed and differences between age groups, reason for living on the street and cumulative traumas experienced were tested using chi-square analyses. Finally, we performed a multivariate regression analysis to identify potential predictors of PTSD score. Variables included age, traumatic life events before and after the earthquake, traumatic exposure, family or foster family violence and street violence (Table 1).

2.3.2. Qualitative content analysis

The interviews were digitally recorded and transcribed by research assistants in Creole. They were then translated in English using the translation/retro-translation method. We subsequently proceeded to an analysis of categorical and thematic content (Bardin, 1977; Paillé & Mucchielli, 2005) based on a grounded theory approach (Strauss & Corbin, 1997). The methodical coding procedure of Charmaz (2006) was followed, by coding the transcribed verbatim by hand with inter-judge agreement procedures and with Atlas / ti (Drisko, 2004). This approach offered us the possibility to understand the meaning that street children and adolescents attributed to their own traumatic experiences. About thirty codes emerged from the initial coding, they were then grouped into 3

Table 1
Characteristics of the participants (n = 176).

	n (%)
Total	176
Gender	
Girls	21 (11.93)
Boys	155 (88.07)
Age	
7–13 years	82 (46.59)
14–17 years	94 (53.41)
Reason for living on the street	
Violence	70 (39.77)
Economic	106 (60.23)
Number of years on the street	
Less than 1 year	12 (6.82)
1–3 years	61 (34.66)
4–6 years	68 (38.62)
7 and +	35 (19.89)
Traumatic life events before the earthquake	
1–3	22 (12.5)
4–6	60 (34.09)
7–9	70 (39.77)
10 and +	24 (13.63)
Traumatic life events after the earthquake	
1–3	24 (13.64)
4–6	48 (27.27)
7–9	50 (28.41)
10 and +	54 (30.68)

Table 2
Rates of PTSD symptoms and resilience among street children over the clinical cutoff levels and socio-demographic characteristics (n = 176).

	PTSD presence (CRIES)		Resilience (RS)	
	n (%)	X^2	*n* (%)	X^2
Total	25 (14.20)		97 (55.11)	
Gender				
Girls				
Boys				
Age		45.68		10.47***
7–13 years	10 (12.19)		34 (41.46)	
14–17 years	15 (15.96)		63 (67.02)	
Reason for living on the street		9.69**		1.12
Violence	17 (24.29)		42 (60)	
Economic	8 (7.55)		55 (51.89)	
Traumatic life events before the earthquake		8.80*		10.29**
1–3	0 (0)		7 (31.81)	
4–6	14 (23.33)		29 (48.33)	
7–9	9 (12.86)		44 (62.86)	
10 and +	2 (8.33)		17 (70.83)	
Traumatic life events after the earthquake		8.17*		4.81
1–3	0 (0)		15 (62.5)	
4–6	10 (20.83)		22 (45.83)	
7–9	10 (20)		31 (62)	
10 and +	5 (9.26)		29 (53.70)	

* $p < .05$.
** $p < .01$.
*** $p < .001$.

main categories and 7 subcategories (axial coding). These were *traumas experienced* (reasons and events explaining their presence on the streets, traumas experienced on the streets, and the earthquake and other natural disasters experiences); *perpetrated traumas*, such as acts of delinquency, banditry or crime; and *strategies for coping, survival and resilience* (the street as a space for survival, social resources and supports, and personal resources developed). We conducted this qualitative data analysis using *constant comparative methods* at each level (Charmaz, 2006; Glaser & Strauss, 1967; Glaser, 2001) namely coding, categorization, analysis of relations and made comparisons.

3. Results

3.1. Results from quantitative analyses

Table 2 showed a prevalence rate of 14.20%. for severe PTSD symptoms. The prevalence of children who declared they are living on the street primarily for violence endured in their family or foster families was 24.29%; and 7.55% for those who declared economic reasons ($X2 = 9.29$, $p < .01$). Table 2 also shows that 55.11% of the street children presented a level of resilience between high moderate and very high, this was 41.46% for those who were aged between 7 and 13 and 67.02% for those who were aged between 14 and 18 ($X2 = 10.47$, $p < .001$).

The average score of the social support satisfaction was 29.95 (SD = 7.12). The average score for street children who were aged between 7 and 13 was 29.47 (SD = 7.99) and 30.37 (SD = 6.30) for those who were aged between 14 and 18, t (174) = 0.84, $p = .41$. The average score of social support satisfaction was 27.23 (SD = 8.04) for street children who declared they lived on the street for primary violence endured, and 31.11 (SD = 6.21) for those who declared they lived on the street for economic reasons. However, street children reported they can count on a few persons (average of 2.9 persons). The average score of resilience was 136.24 (SD = 16.44), this was 132.38 (SD = 14.86) for those who were aged between 7 and 13; and 139.53 (SD = 17.08), for those who were aged between 14 and 18, t (174) = 2.93 $p < .01$.

In the multivariate regression analysis, peritraumatic distress following the earthquake ($\beta = .39$, $p < .0001$) and violence endured in their family or foster families ($\beta = .20$, $p < .01$) were found to be significant predictors of PTSD symptoms. The model explained 24% of the variance ($R2 = 0.24$, $F = 14.21$; $p < .0001$) (Table 3).

By comparing children with severe PTSD symptoms with those with high levels of resilience, the results show that 80% of children showing severe PTSD symptoms also presented a high level of resilience, while 52.02% of those without a diagnosis of PTSD have a high level of resilience ($X^2 = 10.30$, $p < .01$).

All 48 participants involved in the qualitative phase said they had been exposed to social precariousness, poverty and hunger, before even moving into the streets. They also reported having experienced physical abuse and maltreatment. More than four out of five (81.25%) reported having left home or their foster family because of the violence they had suffered. Of the 13 female participants, 12 (92.31%) reported having experienced sexual abuse, including 10 (76.92%) reported abuse involving penetration. Half of these participants (6) reported that they had been sexually abused in their foster family, before settling on the street. Of the 35 boys,

Table 3
Results of multivariate regression analyses predicting PTSD and depressive symptoms ($n = 176$).

	F	p	R^2	β	t	p
PTSD symptoms	14.21	*< .0001*	.24			
Age				.08	1.17	.24
Traumatic life events before the earthquake				.14	1.74	.08
Traumatic life events after the earthquake				−.14	−1.58	.12
Traumatic Exposure to the earthquake				.13	1.70	.09
Peritraumatic Distress				.39	4.93	*< .0001*
Family or foster family violence				.20	2.95	*< .01*
Street violence				−.06	−.92	.36
Other violence experienced				.02	.26	.79

almost half (45.71%) reported having been sexually abused, 11 (31.42%) with anal penetration. All participants, except one, said they knew at least one other street child who has been sexually abused. All participants said they committed robberies and were themselves robbed. All said they were victims of physical violence on the street and more than half (56.25%) said they had perpetrated violence. Of these 48 children and adolescents, 6 (4 boys) reported being HIV positive. Both girls said they were infected while living on the street after sexual assault, while the four boys said they think they were born from HIV-positive mothers, all dead at the time when the survey was conducted.

3.2. Results from qualitative analysis

3.2.1. Traumas experienced

The qualitative analysis of the data from the interviews revealed 3 subcategories associated with the traumas experienced: 1) reasons and events explaining their presence on the streets, 2) traumas experienced on the streets, and 3) the earthquake and other natural disasters experiences.

For the *reasons and events explaining their presence on the streets*, participants evoke various forms of interpersonal violence including neglect, maltreatment, beatings, injuries, and other psychological, physical and sexual abuse experienced in the family of origin by caregivers.

> My mother-in-law beat me every day and hurt me with electric wires. Sometimes her blows caused the premature arrival of my period and made me bleed like a bloody beast. Once, she wounded me with a knife and my father did nothing. Another time she took the knife saying she was going to cut my ear, I know she could have done it, I grabbed the knife, and I stabbed her thigh and I left home. Choupette (Girl, age 16).
>
> When you see that it is your own father who hurts you and in the presence of your own mother, for no reason and she says nothing, you feel that you are only a dog in their eyes and that if you die, they will be happy, so you choose to leave. Better to be killed by a stranger. Gracia (Boy, age 13).
>
> My aunt's husband raped me four times a week, she knew, but never said anything, after a year and a half, I ran away. Charity (Girl, age 13).

If all the participants have in common their parents' poverty, another group of children has also emerged; representing those who said they were on the street because a "*wanga*" (witchcraft) was launched against them.

> Me, it's witchcraft that was done against me, that's why I cannot go home. Each time, there is a mystical force that retains me on the street. If I go back, maybe they will kill me with witchcraft. Ariel (Boy, age 16).

If this first subcategory shows that the history of street children and adolescents is strewn with multiple traumas and violence, the second subcategory shows that they continue to *experience traumas on the streets*. Participants explained that they were abused both physically and sexually on the street. In relation to sexual violence, some children have been raped by other older street children, while many children reported being victims of rape and acts of pedophilia from people whom they describe as Caucasians and foreigners.

> I was taken to a white person I didn't resist because many street children die like this. I did everything he told me. Ah, I did everything. He paid me because I did everything. Otherwise, he would have killed me. I played the nice guy. One day I'll kill a white man in revenge me for all this white man has done to me. I bled like a beast. Jeff (Boy, age 14).
>
> I was sleeping in front of the bank with the other girls and that's where they took me at night. They beat me and told me they would kill me if I made a noise. They put me in a 4 × 4, I couldn't do anything […] He handcuffed me, we were three street children [two girls and a boy] and they were both white and they raped us wildly, in the vagina, and in the anus. They gave me a lot of slaps and blows […] They gave us food, I didn't eat. In the evening they threw us on the street in Delmas and they left to pick up other children. They are criminals. Rosie (Girl, age 13).

Some children also talked about violence perpetrated by representatives of police forces:

> I came to Delmas because a month ago, every night, two street children were killed by bullets. It was said that it was the police, it

was said that it was people who want to eradicate street children. Rony (Boy, age 10).

Other youths interviewed, mentioned acts of violence between the children themselves for gambling, for power, for money, for drugs, and other reasons.

Some children hurt you just because you don't want to be part of their gang or because they are drugged. If you've never been hurt, you're not a street kid. Mariana (Girl, age 11).
I was stabbed three times. The last time was a robbery to take my money. I almost died. Fritznel (Boy, age 11).

Among the traumas experienced by street children, there were also *experiences associated with the earthquake and other natural disasters*. While few children reported being injured during the earthquake, some of them said they had lost close relatives and friends. Unlike children protected by their parents who didn't see the thousands of deaths caused by the earthquake, street children were also exposed to dead bodies lying on the streets for several days or weeks.

You see, they had piled corpses, here. There were corpses all over the street. We didn't sleep for several days because there were cadavers on the streets. Carl (Boy, age 13).

Some of the participants also speak about cyclones and experienced torrential rains:

When there is a cyclone, all the children run to the centers that don't have enough space. Sometimes I stay on the street walking and wandering. A tree, an electric pole, electrical wires can fall on me, everything can happen to me. Delson (Boy, age 12).
Last year, when there was the big wind, an electric wire fell on S., a child who was often with us, he died on the spot. Rosie (Girl, age 13).
The street life is like that, you're wet by the rain, the sun dries you and you continue your road. We are used to that. Stephanie (Girl, age 14).

In sum, analysis of the data revealed four levels in which these children experienced violence. First, these are the three socio-ecological levels that are *i.* their nuclear family; *ii.* their host families; and *iii.* the street; and then, an ecological level that is natural disasters. Based on obtained results, we have conceptualized the model presented in Fig. 1 and which takes up all the traumatic experiences identified in street children and adolescents.

3.2.2. Perpetrated traumas

We have grouped in a single subcategory the *perpetration of acts of delinquency, banditry and criminality*. From the verbatim analyses, it appears that on the street, violence is the rule, it regulates life. Street children are respected by their ability to be violent or to be under the protection of other violent youths. This protection is also a form of violence because it is often made of exploitation.

I'm a son of the streets and I know what I'm talking about. Living on the streets, it's like you're waging war every single moment. You have to be a soldier. If you don't want to be a victim, you have to be ready to do violence to another first. Pierre (Boy, age 13).
If others think you are not capable of stabbing them, they will stab you even in jest. Me, I always have my dagger [he takes it out and shows it]. Jannot (Boy, age 14).

Data analysis showed that these children themselves had been the perpetrators of violence, beatings, injuries, rape and robberies on other street children and other people. Two of them said they had already raped street girls, while the majority said they had already injured other street children. Bandits and street gangs also use some street children to steal and bring them loot, often for their protection on the street. Eight of them said they had already used a firearm and, among the oldest, three said they had already killed someone, at least once.

It was a woman, I had to threaten her with the gun to take her bag, she started screaming, and I fired. It was the first time, I was 13 and I had trouble sleeping, I was afraid, very afraid […] Today, I don't like to do that, but it happens. The street is the jungle. When your boss sends you, if you refuse, you will die, so you go. Wisler (Boy, age 16).

3.2.3. Strategies for coping, survival and resilience

For this third category, three subcategories have emerged. First, the children saw the *street as a space for survival*. Almost all the children interviewed felt that they live on the street by choice and all perceived the street - albeit with all these dangers - as a means of escaping death and as a space of survival. All of them expressed the feeling that the street saved them from a family or placement hell (often in domesticity) made of maltreatment, beating, injuries, verbal, psychological, physical and sexual violence, humiliations and other forms of interpersonal traumas.

In my aunt's house, where I lived after my mother's death, if I were still there, I should already be dead. It's true that the street is dangerous, but I prefer that, I prefer to live on the street, instead of being killed by people who say they belong to my family. Look at this [he shows a big scar of burn], my aunt burned me for dropping a soap while leaving the market. This is the street that saved me. Oscar (Boy, age 15).
The woman with whom I lived nearly burst my eye [she shows a large and frightening scar on the eyelid that continues until the corner of the eye]. It was bleeding a lot and a neighbor took me to Doctors Without Borders. I stayed there for 12 days and no one came to see me. I didn't go home when I left. I preferred to stay on the street. Janice (Girl, age 14).

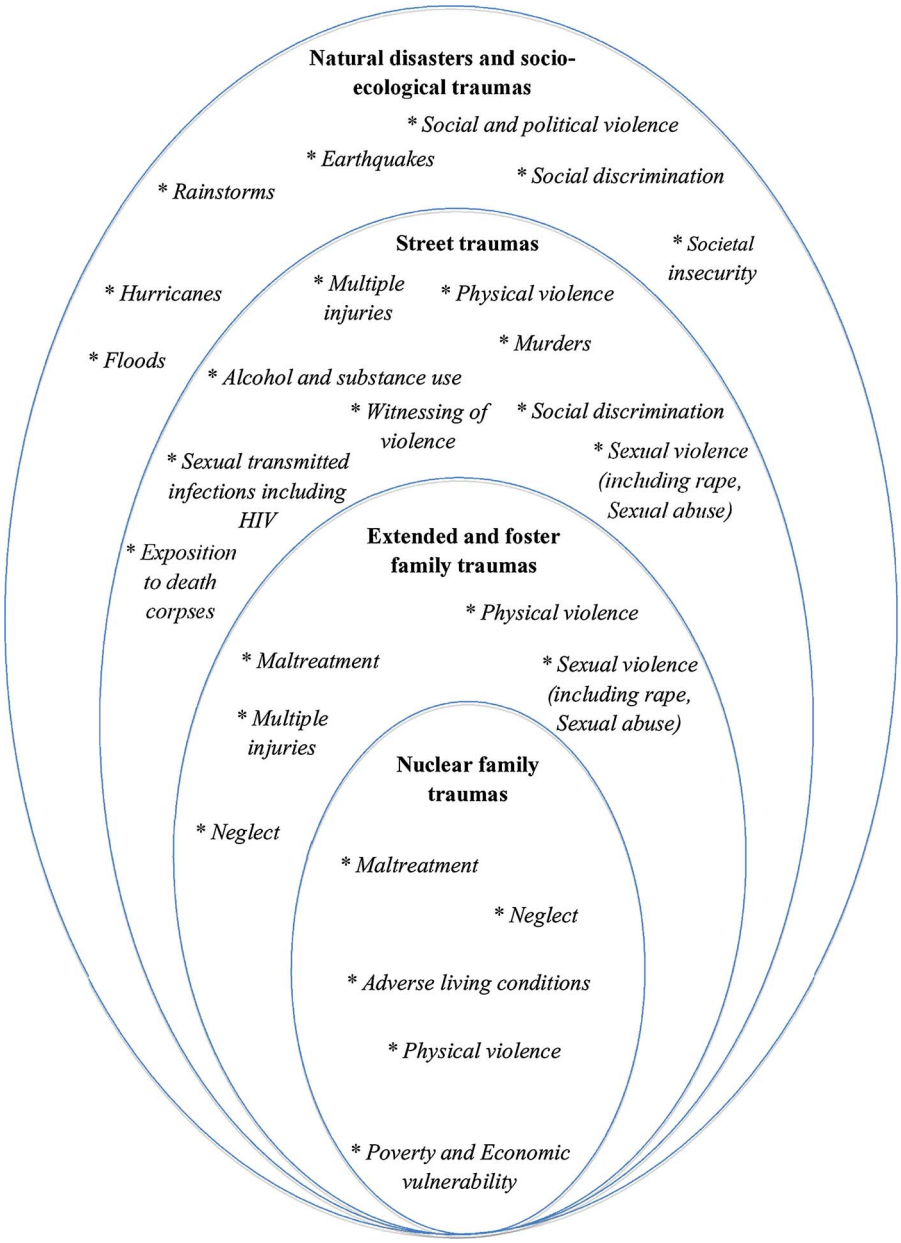

Fig. 1. Socio-ecological conceptualization of multiple traumas among street children.

While all these children say they dream of leaving the streets and returning to a normal living environment, they almost all express a certain recognition vis-à-vis the street. Moreover, they speak about the street as if they owed their life to the street. They thus perceived the street as a space of survival, but also of freedom that they don't regret having chosen.

Among the different strategies for coping, survival and resilience, there are also the *social resources and support*. All the children expressed an enormous sense of gratitude and a very high level of satisfaction with the sparse social support received and the social resources available for them. The frequently mentioned social support resources were the mobile clinics of the International Medical Aid (AMI), being regurlarly well received by Doctors without Borders, the distribution of new clothes and food by non-governmental and religious organizations and benevolent individuals, the continuous support from some members of the population, such as certain sidewalk merchants, literacy and the learning professional centers.

> When you live on the street, you have no box to hide your clothes. If you ask me what I have as a garment, it's what I'm wearing here, that's all. After, I have to change them. When people bring us clothes, it is because they have thoughts for us. It brings you great joy in your heart and makes you very happy. Edouard (Boy, age 12).

When they (AMI) come to take care of us, we say that one day things will change, so we try to hold on and face life without giving up. Annie (Girl, age 10).
These are things [street medical aid, clothing and food received] that bring you hope on the street. When this happens, you want to live. Charles (Boy, age 15).

Youths also mentioned being highly satisfied with the support received:

We are on the street, we walk, we walk, and we just walk and rest. The state doesn't care about what we do; it is like we are dead for them, dead who breathe. When someone gives you something, that's what makes you live. Paul (Boy, age 11).
No matter what people give us, we are satisfied: a dollar, a meal, we are satisfied. People are neither our mothers nor our fathers, they owe us nothing. Stephanie (Girl, age 14).

Data collected also suggest that there is also mutual help between street children. Indeed, even though they said they could count only on few people (an average of 2.9 people), they all said they could count on other street children to help them, if needed. Some consider themselves as real brothers and sisters, others take care of each other and protect themselves.

Most often when you have nothing on the street, no money, nothing at all, it is the others who support you. On the street, we are like that, we each know bad days, days when you gain nothing, and then we know to give to the one who has nothing. Even if it's not you, he'll give it to someone else, another day. In my group, we try to make sure that everyone eats at least something, before the evening arrives. Tevez (Boy, age 13).

More than simple and individual support, youth reported that together they form a strong community with solidarity, mutual help and altruism. They also noted the occasional support of people who are passing by and that also gave them some hope in the society. Indeed, while some noted the passersby's looks of mistrust, others, noted that some passersby take a benevolent look at them. Many children reported mostly financial support from passersby.

The person goes by, you ask him nothing, and he looks at you, calls you, and offers you money while apologizing. There are still these people in this country and you have a better day when you meet them. Patrice (Boy, age 11).

The last subcategory consists of *personal resources developed* by street children. Our first observation was the very great maturity and the awareness of the danger found in these children. Then, they use their experiences of adversity as a strategy to deal with the new traumas. Moreover, they presented themselves as persons almost "vaccinated" against adversities and having already experienced the worst. We can also see in street children lucidity and anchorage in survival logic which may act to prevent their psychic collapse.

Street children don't know how to be afraid. On the street, you meet all kinds of people, all kinds of things, and all this makes you stronger. Everything can happen at any time, that's why you always have to be ready to face anything that can happen. Carl (Boy, age 13).
You know, when you are a street child that means you're ready for anything […] I have already experienced the worst, so I can fight life and I can cope with any situation […] There can be no worse than I have ever experienced. Pierre (Boy, age 13).

Among the personal resources developed by street children as coping strategies and resilience, there is also sharing, altruism and solidarity. Indeed, on the street, these children weave strong bonds of friendship and organization for their survival. There are children who never eat alone a piece of bread or something given by a stranger passing by.

On the street, you do not eat alone, you cannot, it's not normal. You always have friends with you, we eat everything we find together. You cannot be eating, while your friend is yawning. Today, you have enough to eat, tomorrow it will be him. Carline (Girl, age13).

This solidarity demonstrates an anchoring in the reality of their life and a form of maturity, as well as strategies of organization and protection against the streets' dangers.

Imagine that one is hungry, and you have to eat and you're eating alone in your corner, it is also violence. You think that if you are dying of starvation and you see people eating without giving you a piece, you love them? It's just not normal. We don't eat alone, it is a principle of the street […] Besides, it's not only food, you share everything you have with your band, you protect yourself, one watches over the other, you don't sleep if everyone doesn't show up in the evening, we organize ourselves. When we learn, for example, that white pedophiles are in Haiti, we come back sooner, we go back to sleep in Lakou, we say that to the priest who allows all children to enter to sleep. We protect ourselves because the state doesn't. Charles (Boy, age 15).

Finally, other personal resources were also identified in street children namely their ability to dream of a better tomorrow, feelings of hope, sense of justice, humor, self-determination, spirituality, faith and a great ability to tell their stories with metaphoric attitudes. Indeed, these children, even in very precarious situations, have themselves chosen to live, in the majority of cases, on the streets to escape disastrous living conditions and injustice. They didn't let others choose for them. Also, their ability to be able to tell the story of their lives, to find the right words, to choose images and metaphors to talk about it and to integrate humor to make it less tragic (because it is already too much), participates in the co-construction of their resilience process. Fig. 2 shows all the strategies, resources and supports identified among these street children and the links they evoke in building their resilience process.

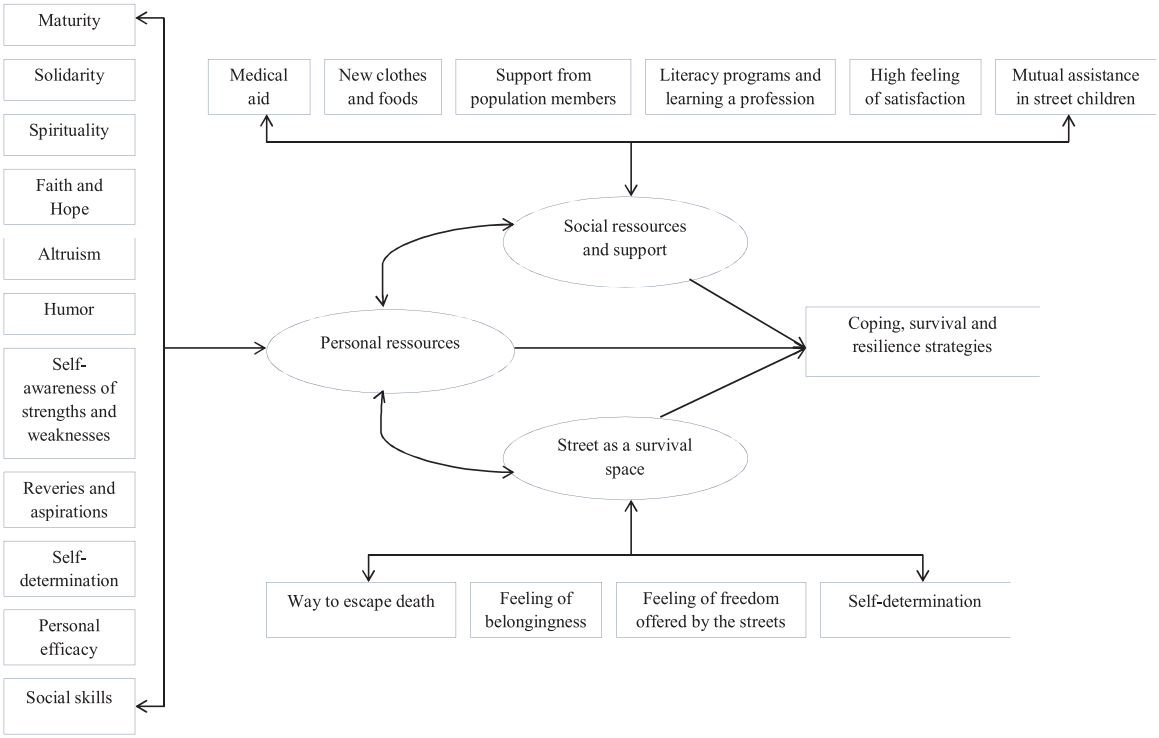

Fig. 2. Conceptualization of coping, survival and resilience strategies among street children.

4. Discussion

The main objective of this study was to document the interpersonal and non-interpersonal traumas experienced by street children and adolescents in Haiti and to explore coping and resilience strategies to face adversities in the logic of survival relying on a mixed method approach. The complementary perspective with an embedded concurrent design used in the mixed methods approach (Creswell & Plano Clark, 2010; Teddlie & Tashakkori, 2003) proposed by this study is particularly adapted to better understand the processes underlying the phenomenon of street children, their traumatic experiences, as well as the strategies of survival, coping and resilience they use (O' Cathain, Murphy, & Nicholl, 2008).

The results of both quantitative and qualitative phases of this study first showed that street children experienced multiple and complex trauma. Indeed, of all the participants in our sample, none experienced a single trauma; on the contrary, all have experienced multiple traumas that get entangled. In their journey, from the family setting to the street, their lives are surrounded by significant adversities, difficult life events and interpersonal and non-interpersonal traumas that are multiple and, above all, complex. Indeed, neglect, poor living conditions, maltreatment, psychological, physical (multiple and repeated beatings and injuries), sexual (including rape and pedophilia), community and social (exposure to dead bodies, social discrimination) and political violence, as well as natural disasters are the traumas identified among street children. At all levels of their development and in all socio-ecological spheres of their evolution (Bronfenbrenner & Morris, 1998), these children and adolescents experienced various traumatic experiences. It is also noteworthy that children who reported living on the streets mainly because of violence they endured in their families or in families where they were placed, present more prevalence of PTSD symptoms compared to those who reported economic problems. These results evoke the symbolic role of violence in living environments that should have been safe such as the family as a risk factor for the development of the PTSD.

However, while it is recognized that youths who have experienced multiple traumas are likely to develop psychopathological consequences including PTSD, depression, suicidal ideation (Fossion, Leys, Kempenaers, & Braun, 2013; Green et al., 2000; Scott, 2007), these children have shown self-efficacy (Bandura, 1982) to face their traumatic experiences and few of them (less than 15%) show scores reflecting clinical rates of PTSD symptoms. Indeed, studies of children and adolescents who experienced the 2010 earthquake in Haiti often showed prevalence of PTSD symptoms two to four times higher (Derivois et al., 2014, Blanc et al., 2015; Cénat & Derivois, 2015; Derivois et al., 2017). However, in the case of the street children, is it really necessarily self-efficacy (Bandura, 1982)? Because of the low psychopathological consequences of the traumas experienced identified by measures, we posit that it can also be understood as a traumatic numbing (Métraux & Kaës, 2004) in the logic of survival. While the experience of well-integrated adversity can effectively provide skills to cope with difficult events to come (Luecken & Gress, 2010), as Métraux and Kaës (2004) stated, when people continue to live in adversity, survival instincts are activated and the expression of the symptoms associated with the traumas experienced are then frozen pending happy days (Cénat & Derivois, 2014; Fossion, Leys, Kempenaers, & Braun, 2014). In the case of street children, they live in a survival space where violence is the main rule; the presence and expression

of traumatic symptoms would, in a way, put their guard down. An attitude they simply cannot afford to adopt, being in such logic of survival. Moreover, the results showed that 80% of children showing severe PTSD symptoms have a high level of resilience. It is true that resilience does not equate to absence of traumas (Almedom & Glandon, 2007), but these results prompt questions. Can one be both traumatized and develop severe symptoms of PTSD and also be resilient? This study among street children living in precarious situations and faced with traumas on a daily basis aims to elucidate these questions. Further research needs to be performed to understand the mechanisms underlying resilience and PTSD co-occurence.

Also in terms of resilience, if studies tend to show that people who have experienced multiple and complex trauma are less likely to be identified as resilient (Fossion et al., 2014, Fossion et al., 2013), on the contrary, both qualitative and quantitative phases reported the participants of our sample appear to be able to find the resources necessary to initiate a resilience process. This high level of resilience could be explained by several factors including the very high level of satisfaction they have with yet the little social support that is available to them. Indeed, other studies have shown significant relationships between the satisfaction of social support and resilience (Cénat et al., 2017; Chu, Sen, Saucier, & Hafner, 2010). In the case of street children, their high level of satisfaction could be explained by the fact that the received social support is in a sense, a testimony of their existence, because in reality neither the State nor the society acknowledges their existence. Indeed, these children have neither birth certificates nor identification documents. Some of them barely know their age, and many don't even know their date of birth. When an NGO or individual offers them something, they also give them a form of existence beyond breathing. It may also provide them with the power to dream. For street children, it is a physical and psychological survival that passes through the concrete and material link that social support provides, and therefore the feeling of existence for another. On the other hand, the support received is rooted in their reality because living on the street presupposes that these children have no place to put clothes or food. On the street, life is organized from day to day and the garment is worn until it becomes dirty and torn. The concrete social support can then create a sense of hope that can be regarded as outside the building of resilience process (Panter-Brick & Eggerman, 2012).

In addition to offering these children the opportunity to escape traumatic space (host family or others), street life also offered them the opportunity to develop new social networks of resistance and survival. Moreover, beyond the creation of such a social network, these children appear to form a strong community. Indeed, the use of "We" at the expense of "I" in their discourse, the investment of the spokesperson role of their community by each of them, the weaving of ties between them makes them a *resilience community*. For them, the street is a parallel society of resistance to the normalized society. Moreover, living in a continually dangerous social and ecological environment could also allow the consideration of their resilience as an epigenetic response to the traumas experienced (Meaney & Ferguson-Smith, 2010). Research on neuroplasticity has shown that living under such conditions can particularly change the brain and ways of understanding and facing the social and environmental adversities (Southwick & Charney, 2012; Ungar et al., 2013).

Altogether, this study shows (Fig. 2) that building resilience in street children is not an isolated phenomenon, but the result of interconnected strategies from protective factors, individual, social and ecological resources and supports (Cénat et al., 2013; Ungar, 2004a; Ungar et al., 2013).

Finally, we can also mention the hidden resilience approach (Ungar, 2004b) to understand the high level of resilience in the case of street children. Indeed, studies among street children in South Africa (Malindi & Theron, 2010) using the hidden resilience approach has shown that street children have personal and social resources (relationship with peers, for example) that can help them build resilient trajectories. So instead of exploring only their vulnerabilities, studies should also try to understand the personal and social resources of their hidden resilience and build on them to put in place prevention and intervention programs that meet their real needs.

This research has some limitations. First, the number of girls is much lower than that of boys. This is explained by the fact there are fewer girls than boys on the streets. We made a great effort to recruit as many girls. In the course of the study, we were also confronted with two ethical limitations. First, for minors under normal circumstances, we should have asked their parents' consent. However, for those living on the streets, this process was impossible, because many youths are orphans and have no guardians, or have had no contact with their parents for years, don't know where they live or whether they are still alive. We decided to go through the IBESR, the state institution in charge of street children's rights, in order to obtain approval for our protocol. The second is that we planned to refer the youths to a psychological support structure in cases of disclosure of sexual assault and other traumas, but they did not have enough capacity to receive all of them. In some instances, we had to give up probing to prevent generating emotions for which we would not have been able to provide efficient support.

5. Practice and policy implications

After all, the phenomenon of street children in Haiti, Latin America and the low-and-middle-income countries is a major human, social and public health problem that deserves to be addressed with priority by national government and international institution policies. This study made it possible to explore both their traumatic experiences and their coping and resilience aptitudes and strategies. It also paves the way for recommendations for an integrated support and social reintegration program for these children and adolescents. The aim is, in the presence of a weak state, to develop public/private partnerships based on expertise developed in other countries (Cudjoe & Alhassan, 2016; Harris, Johnson, Young, & Edwards, 2011; Shrivastava et al., 2014). First, it is to set up a program with clear and documented procedures that can create trust between these children and their rehabilitation institution. Then they can be reintegrated into their families, when possible and secure, otherwise, in foster families or centers that respect their experiences, their traumatized children past, but also their maturity to deal with some major challenges. The developed programs must prioritize client-centered and integrated practices that combine psychological, social, economic supports and social and

vocational integration based on evidence-based practice and the real needs of these children and adolescents. Finally, these programs must be implemented from the perspective of social justice, taking as a transversal thread the skills acquired on the streets and the resilient capacities of these children. Hopefully our attempt to give a voice to these youths confronted with such adversities, yet equipped with the capacity to navigate such turmoil will represent a first step to efficient programs.

Conflict of interest

None.

References

Almedom, A., & Glandon, D. (2007). Resilience is not the absence of PTSD any more than health is the absence of disease. *Journal of Loss and Trauma, 12*(2), 127–143. http://dx.doi.org/10.1080/15325020600945962.

Asante, K. (2016). Street children and adolescents in Ghana: A qualitative study of trajectory and behavioural experiences of homelessness. *Global Social Welfare, 3*, 33–43.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122–147.

Bardin, L. (1977). *L'analyse de contenu.* Paris: Presses Universitaires de France.

Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (2002). *Cross-cultural psychology: research and applications.* Cambridge: Cambridge University Presshttp://dx.doi.org/10.1177/0022022191221002.

Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Charney, D. S., & Keane, T. M. (1995). The development of a clinician-adminstered PTSD scale. *Journal of Traumatic Stress, 8*(1), 75–90. http://dx.doi.org/10.1002/jts.2490080106.

Blanc, J., Bui, E., Mouchenik, Y., & Derivois, D. (2015). Prevalence of post-traumatic stress disorder and depression in two groups of children one year after the January 2010 earthquake in Haiti. *Journal of Affective Disorders, 172*, 121–126.

Bony, H. (2016). *Les enfants de la rue à Port-au-Prince: Liens avec les membres de leurs familles.* Retrieved fromUniversité Lavalhttp://synthese.larim.polymtl.ca:8080/xmlui/handle/123456789/201.

Bronfenbrenner, U., & Morris, P. (1998). The ecology of developmental processes. In R. Lerner (Ed.). *Handbook of child psychology: Theoretical models of human development* (pp. 993–1028). (5th ed.). New York, NY: John Wiley.

Brunet, A., Weiss, D. S., Metzler, T. J., Best, S. R., Neylan, T. C., Rogers, C., ... Marmar, C. R. (2001). The Peritraumatic Distress Inventory: A proposed measure of PTSD Criterion A2. *American Journal of Psychiatry, 158*(9), 1480–1485. http://dx.doi.org/10.1176/appi.ajp.158.9.1480.

Cénat, J. M., & Derivois, D. (2014). Psychometric properties of the Creole Haitian version of the Resilience Scale amongst child and adolescent survivors of the 2010 earthquake. *Comprehensive Psychiatry, 55*(2), 388–395. http://dx.doi.org/10.1016/j.comppsych.2013.09.008.

Cénat, J. M., & Derivois, D. (2015). Long-term outcomes among child and adolescent survivors of the 2010 Haitian earthquake. *Depression and Anxiety, 32*(1), 57–63. http://dx.doi.org/10.1002/da.22275.

Cénat, J. M. (2014). *Tremblement de terre du 12 janvier 2010 en Haïti: Des traumatismes à la résilience.* Lyon 2.

Cénat, J. M. (2015). Résilience et soutien social chez les enfants et adolescents haïtiens survivants du tremblement de terre du 12 janvier 2010. *Revue Haïtienne de Santé Mentale, 3*(1), 67–84.

Cénat, J. M., Derivois, D., & Karray, A. (2017). Psychopathologie de la mort et de la survivance en Haïti: le séisme et la culture comme analyseurs. *Psychothérapies, 37*, 7–17.

Cénat, J. M., Derivois, D., & Merisier, G. G. (2013). Ecole et résilience chez les enfants et adolescents dans l'Haïti post-séisme. *Revue Québécoise de Psychologie, 34*(2), 189–201.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* Thousand Oaks: Sage Publications.

Chen, Z., Zhang, Y., Liu, Z., Liu, Y., & Dyregrov, A. (2012). Structure of the Children's Revised Impact of Event Scale (CRIES) with children and adolescents exposed to debris flood. *PLoS ONE, 7*(8), e41741. http://dx.doi.org/10.1371/journal.pone.0041741.

Chu, P., Sen, Saucier, D. A., & Hafner, E. (2010). Meta-analysis of the relationships between social support and well-being in children and adolescents. *Journal of Social and Clinical Psychology, 29*(6), 624–645. http://dx.doi.org/10.1521/jscp.2010.29.6.624.

Creswell, J. W., & Plano Clark, V. L. (2010). *Designing and conducting mixed methods research.* Sage Publicationshttp://dx.doi.org/10.1111/j.1753-6405.2007.00096.x.

Cudjoe, E., & Alhassan, A. (2016). The social support of Street children: The experiences and views of female head porters in Kumasi, Ghana. *Asian Research Journal of Arts & Social Sciences, 1*(6), 1–11.

Derivois, D., Cénat, J. M., Joseph, N. E., Karray, A., & Chahraoui, K. (2017). Prevalence and determinants of post-traumatic stress disorder, anxiety and depression symptoms in street children survivors of the 2010 earthquake in Haiti, four years after. *Child Abuse & Neglect, 67*, 174–181. http://dx.doi.org/10.1016/j.chiabu.2017.02.034.

Derivois, D., Mérisier, G. G. G., Cénat, J.-M. J., Val, C., & Castelot, V. (2014). Symptoms of posttraumatic stress disorder and social support among children and adolescents after the 2010 Haitian earthquake. *Journal of Loss and Trauma, 19*(3), 202–212. http://dx.doi.org/10.1080/15325024.2013.789759.

Drisko, J. W. (2004). Qualitative data analysis software: A user's appraisal. In D. Padgett (Ed.). *The qualitative research experience* (pp. 193–209). Belmont: Wadsworth/Thomson Learning.

Fisch, S., & Truglio, R. (2014). *G is for growing: Thirty years of research on children and Sesame Street.* Hoboken, NJ: Taylor and Francis.

Fossion, P., Leys, C., Kempenaers, C., & Braun, S. (2013). Depression, anxiety and loss of resilience after multiple traumas: An illustration of a mediated moderation model of sensitization in a group of children who survived. *Journal of Affective Disorders, 160*, 21–26.

Fossion, P., Leys, C., Kempenaers, C., & Braun, S. (2014). Disentangling sense of coherence and resilience in case of multiple traumas. *Journal of Affective Disorders, 151*, 973–979.

Glaser, B. (2001). *The grounded theory: Conceptualizatoin contrasted with description.* Mill Valley: Sociology Press.

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research.* London: Weidenfield & Nicolson.

Glauser, B. (2013). Street children. In A. James, & A. Prout (Eds.). *Constructing and reconstructing childhood: Contemporary issues in the sociological study of childhood*(3rd ed.). New York: Roudlegde.

Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric properties of the life events checklist. *Assessment, 11*(4), 330–341. http://dx.doi.org/10.1177/1073191104269954.

Green, B. L., Goodman, L. A., Krupnick, J. L., Corcoran, C. B., Petty, R. M., Stockton, P., ... Stern, N. M. (2000). Outcomes of single versus multiple trauma exposure in a screening sample. *Journal of Traumatic Stress, 13*(2), 271–286. http://dx.doi.org/10.1023/A:1007758711939.

Gwanyemba, J., Nyamase, E., & George, B. (2016). Resilience of street children to violence, exploitation and abuse in Tanzanian cities: Evidence from Unga Limited Ward in Arusha city. *Imperial Journal of Interdisciplinary Research, 2*(7), 60–65.

Harris, M. S., Johnson, K., Young, L., & Edwards, J. (2011). Community reinsertion success of street children programs in Brazil and Peru. *Children and Youth Services Review, 33*(5), 723–731. http://dx.doi.org/10.1016/j.childyouth.2010.11.017.

International Medical Aid (2011). *Recensement Enfants et jeunes des rues de Port-au-Prince.* Port-au-Prince.

Joseph, N. E., & Derivois, D. (2016). Clinique de la créativité chez les enfants des rues en Haïti. *Neuropsychiatrie de l'Enfance et de l'Adolescence, 64*(5), 324–330. http://dx.doi.org/10.1016/j.neurenf.2016.06.005.

Karray, A., Derivois, D., Brolles, L., & Wexler Buzaglo, I. (2017). La reconstruction des enveloppes psychiques et environnementales dans les dessins d'enfants des rues

en Haïti: une étude post-séisme. *L'Évolution Psychiatrique, 82*(1), 89–103. http://dx.doi.org/10.1016/j.evopsy.2015.12.006.
Lubin, I. (2007). *Trajectoires d'enfants de la rue d'Haïti ayant bénéficié d'une intervention d'une ONG visant l'insertion sociale: que sont devenus ces enfants?* Université Laval.
Lucchini, R. (2001). Carrière, identité et sortie de la rue: le cas de l'enfant de la rue. *Déviance et Société, 25*(1), 75. http://dx.doi.org/10.3917/ds.251.0075.
Luecken, L. J., & Gress, J. L. (2010). Early adversity and resilience in emerging adulthood. In J. W. Reich, A. J. Zautra, & J. S. Hall (Eds.). *Handbook of adult resilience.* New York: The Guilford press.
Malindi, M. J., & Theron, L. C. (2010). The hidden resilience of street youth. *South African Journal of Psychology, 40*(3), 318–326. http://dx.doi.org/10.1177/008124631004000310.
Meaney, M. J., & Ferguson-Smith, A. C. (2010). Epigenetic regulation of the neural transcriptome: The meaning of the marks. *Nature Neuroscience, 13*(11), 1313–1318. http://dx.doi.org/10.1038/nn1110-1313.
Métraux, J. J. C., & Kaës, R. (2004). *Deuils collectifs et création sociale (La dispute).* Paris: La dispute.
O' Cathain, A., Murphy, E., & Nicholl, J. (2008). The quality of mixed methods studies in health services research. *Journal of Health Services Research & Policy, 13*(2), 92–98. http://dx.doi.org/10.1258/jhsrp.2007.007074.
Paillé, P., & Mucchielli, A. (2005). *L'analyse qualitative en sciences humaines et sociales.* Paris: Armand Colin.
Pandey, G. K., Dutt, D., Nair, N., Subramanyam, M., & Nagaraj, K. (2005). Interventions to modify sexual risk behaviors for preventing HIV infection in street children and youth people in developing countries (Protocol). *Cochrane Database of Systematic Reviews,* (4), 10.
Panter-Brick, C., & Eggerman, M. (2012). *Understanding culture, resilience, and mental health: The production of Hope. The social ecology of resilience*. New York: Springer New York369–386. http://dx.doi.org/10.1007/978-1-4614-0586-3_29.
Perrin, S., Meiser-Stedman, R., Smith, P., & Yule, B. (2005). The Children's Revised Impact of Event Scale (CRIES): Validity as a screening instrument for PTSD. *Behavioural and Cognitive Psychotherapy, 33*, 487–498. http://dx.doi.org/10.1017/S1352465805002419.
Sarason, I. G. I., Levine, H. H. M., Basham, R. R. B., & Sarason, B. R. B. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology, 44*(1), 127–139. http://dx.doi.org/10.1037/0022-3514.44.1.127.
Sarason, I., Sarason, B., Shearin, E., & Pierce, G. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships, 4*(4), 497–510. http://dx.doi.org/10.1177/0265407587044007.
Scott, S. T. (2007). Multiple traumatic experiences and the development of posttraumatic stress disorder. *Journal of Interpersonal Violence, 22*(7), 932–938. http://dx.doi.org/10.1177/0886260507301226.
Shrivastava, S. R., Shrivastava, P. S., & Ramasamy, J. (2014). Developing a coordinated response to counter the public health menace of street children. *Biology and Medicine, 6*(3), 1000e112. http://dx.doi.org/10.4172/0974-8369.1000e112.
Southwick, S. M., & Charney, D. S. (2012). The science of resilience: Implications for the prevention and treatment of depression. *Science, 338*(6103).
Strauss, A., & Corbin, J. M. (1997). *Grounded theory in practice.* Thousand Oaks: Sage Publications.
Teddlie, C., & Tashakkori, A. (2003). Major issues and controversies in the use of mixed methods in the social and Behavioural Sciences. In A. Tashakkori, & C. Teddlie (Eds.). *Handbook of mixed methods in social & behavioral research* (pp. 3–50). Thousand Oaks: SAGE Publications.
Ungar, M. (2004a). A constructionist discourse on resilience: Multiple contexts, multiple realities among at-risk children and youth. *Youth & Society, 35*(3), 341–365. http://dx.doi.org/10.1177/0044118X03257030.
Ungar, M. (2004b). *Nurturing hidden resilience in troubled youth.* Toronto, ON: University of Toronto press.
Ungar, M., Ghazinour, M., & Richter, J. (2013). Annual research review: What is resilience within the social ecology of human development? *Journal of Child Psychology and Psychiatry, 54*(4), 348–366. http://dx.doi.org/10.1111/jcpp.12025.
United Nations Children's Fund (UNICEF) (2012). *The state of the world's children 2012: Children in an urban world.* New York.
United Nations Children's Fund (UNICEF) (2016). *The state of the world's children 2016. A fair chance for every child.* New York.
United Nations Human Settlements Programme (UN-Habitat) (2007). *Enhancing urban safety and security: Global report on human settlements*London: Earthscan.
Wagnild, G. M. (2013). Development and use of the Resilience Scale (RS) with middle-aged and older adults. In S. PrinceEmbury, & D. H. Saklofske (Eds.). *Resilience in children, adolescents, and adults: Translating research into practice* (pp. 151–160). New York: Springer. http://dx.doi.org/10.1007/978-1-4614-4939-3_11.
Wagnild, G. M., & Collins, J. A. (2009). Assessing resilience. *Journal of Psychosocial Nursing and Mental Health Services, 47*(12), 28–33. http://dx.doi.org/10.3928/02793695-20091103-01.
Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1*(2), 165–178.
Weiss, D. S., & Marmar, C. R. (1997). The impact of event scale—Revised. In J. Wilson, & T. M. Keane (Eds.). *Assessing psychological trauma and PTSD* (pp. 399–411). New York: Guilford Press.