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Running to stand still: Trauma symptoms, coping strategies, and substance use behaviors in unaccompanied migrant youth

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ABSTRACT

From October 2013 to July 2016, over 156,000 children traveling without their guardians were apprehended at the US-Mexico border. Although these unaccompanied youth have received substantial media attention, little is known about their health and well-being. The current study implemented a concurrent, parallel mixed methods research design, whereby quantitative (survey) and qualitative (focus groups) data were collected simultaneously to explore: (a) the frequency of posttraumatic stress disorder, depression, suicidal ideation, and substance use, (b) trauma exposure at pre-migration, migration, and post-migration, and (c) how youth may cope with these adversities. Thirty unaccompanied migrant youth were recruited from middle and high schools. An equal proportion of female and male participants from Honduras (n = 10), Guatemala (n = 8), México (n = 6), and El Salvador (n = 6) completed survey and focus group protocols. Over one-half of the sample met the criteria for posttraumatic stress disorder (56.7%), 30% met the criteria for major depressive disorder, and 30% reported suicidal ideation in the past year. While most youth reported no or infrequent substance use, they indicated having easy access to nearly all substances. Qualitative data revealed that youth faced persistent trauma exposure, including family separation, family and community violence, a lack of institutional protection, and pervasive poverty. Coping strategies related to mental health and substance use outcomes. Social withdrawal and avoidant coping were related to posttraumatic stress disorder, higher depressive symptoms and suicidal ideation, while adaptive coping strategies were protective against substance use. Unaccompanied youth flee their counties of origin to escape extreme violence and reunite with family. In the U.S., they report unresolved trauma and grief. If left untreated, these can be risk factors for mental illness and disability in adulthood. Reinforcing healthy coping may be an area where school and community providers can intervene to improve these youths' well-being.

1. Introduction

Youth from the Northern Triangle region of Central America (Honduras, Guatemala, and El Salvador) leave their country of origin to escape violence perpetrated by gangs and organized crime, leave abusive family relationships, find educational and employment opportunities to alleviate extreme poverty, and reunite with parents and family members in the United States (The United States Conference of Catholic Bishops/Migration and Refugee Services, 2012). These were major push factors for the recent exodus of over 156,000 children traveling to the U.S. without their guardians (known as unaccompanied migrant youth) who were apprehended at the U.S.-Mexico border between October 2013 and July 2016. Many of these youth have survived trauma and adverse childhood experiences in their countries of origin, only to face challenges during the migration journey and post-migration context (Roth & Grace, 2015).

Exposure to trauma and adverse childhood experiences for migrant youth often occur in one or more of the stages of migration: pre-migration (home country), peri-migration (or the migration journey), and post-migration (receiving country). At the pre-migration stage, some youth describe exposure to adverse childhood events, such as: extreme poverty, physical and sexual abuse, neglect, abandonment, interpersonal violence, kidnapping, and organized and state-sponsored violence. UNHCR (2014) interviewed 400 children from Central America and Mexico and found that 48% of children left their home because of violence perpetrated by organized crime and gangs and 21% to escape abuse by a caregiver. During the migration journey, youth may take treacherous journeys to get to the U.S. and may experience starvation, desertion, physical abuse, rape and molestation, gang and cartel violence, extortion, kidnapping, and incarceration. Amnesty International (2010) reported as high as 60% of women and girls are sexually assaulted during the migration journey. For many youth

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apprehended in Mexico, they will repeat the journey and may have experienced trauma during each attempt. During the post-migration phase, youth often face additive stressors related to acculturation (e.g., language and cultural differences), family reunification, and interactions with the educational and legal systems. Young people may live in communities that increase their vulnerability to crime and poverty. These post-migration experiences can complicate previous trauma histories, and from a toxic stress perspective, this leads to the onset or exacerbate mental health outcomes through adulthood (Shonkoff et al., 2012).

2. Literature review

2.1. Trauma exposure and mental health problems in immigrant populations

According to the Substance Abuse and Mental Health Services Administration, "Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's…physical, social, emotional, or spiritual well-being." It is well documented that exposure to trauma has a significant impact on psychological well-being and adaptation (Fawzi & Stein, 2003). Trauma exposure is associated with significant psychiatric morbidity, including (but not limited to) posttraumatic stress disorder (PTSD) (Olff, Langeland, & Gersons, 2005), lifetime depressive episodes (Chapman et al., 2004), alcohol (Dube, Anda, Felitti, Edwards, & Croft, 2002) and drug use (Dube et al., 2003) and suicide attempts, (Dube et al., 2001). Among trauma-exposed youth, those with subclinical or clinical levels of PTSD are at a greater risk of depression, substance use, and life impairment (Blumenthal et al., 2008).

In child populations the prevalence of PTSD varies substantially. Among children exposed to war, the pooled estimates of PTSD were roughly 47% (Attanayake et al., 2009), while the prevalence of PTSD was about 16% in a sample of trauma-exposed (not specific to war) youth (Alisic et al., 2014). Research on Latino immigrant youth in Los Angeles found that 31% of youth reported exposure to violence and clinically significant PTSD and/or depression symptoms (Kataoka et al., 2003). Among unaccompanied migrant youth, stress and vulnerability are greater in the absence of a stable and consistent caregiver (UNHCR, 2014). In U.S. samples of unaccompanied migrant youth, as high as 85% were exposed to one or more traumatic events prior to entering the U.S., 38% were diagnosed with a mental disorder—with PTSD being the most common diagnosis—and 33% were diagnosed with a substance use disorder (USCCB, 2012). Research on the longitudinal outcomes of unaccompanied refugee minors in Norway suggest that pre-migration trauma, post-migration acculturation context, gender, and cultural orientation distinguish resilient from vulnerable and clinically depressed youth (Keles, Friborg, Idsøe, Sirin, & Oppedal, 2018).

2.2. Coping responses to trauma and its relation to psychiatric morbidity

There is a substantial body of empirical evidence that suggests children's responses to stress, including their coping styles, contribute to differential morbidity after trauma exposure (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). *Coping* is an ongoing and dynamic process, defined by Lazarus and Folkman (1984) as "constantly changing cognitive and emotional efforts to manage specific external and/or internal demands that are appraised as taxing or excessive to the resources of the person" (p. 141). Coping styles are the habitual strategies adopted by the individual to address and manage stressful life events and problems (Sandler, Wolchik, MacKinnon, Ayers, & Roosa, 1997). Early work on coping identified two types of coping styles: emotional coping (e.g., seeking emotional support, venting) and problem-focused coping (e.g., addressing the problem, planning) (Lazarus & Folkman, 1984). Expansion of their work has identified additional coping styles, including reappraisal coping (e.g., positive or radical acceptance), avoidance coping (e.g., denial, social isolation), (Cox & Ferguson, 1991) and a sense of hope (Jani, Underwood, & Ranweiler, 2016).

Youth exposed to trauma often employ a range of coping strategies (Finklestein, Laufer, & Solomon, 2012) and these coping strategies may influence the degree of symptomatology, as well as differential morbidity outcomes following traumatic exposure (Finklestein et al., 2012; McGregor, Melvin, & Newman, 2015; Olff et al., 2005). Certain coping styles, for example, have been associated with the onset and maintenance of PTSD symptoms in non-refugee (Olff et al., 2005) and refugee youth (Finklestein et al., 2012). In Ethiopian immigrants in Israel, avoidance coping and antisocial coping (e.g., acting in a way that disadvantages others) was associated with PTSD (Finklestein et al., 2012). Similar findings were found among Somali refugees in Canada, with avoidance coping and social isolation associated with higher pathology including PTSD (Matheson, Jorden, & Anisman, 2008).

Research with U.S. samples has also found a relation between coping styles and psychological functioning (Cobb, Xie, & Sanders, 2016; Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Kidd & Carroll, 2007). Unger et al. (1998) found that youth who employed emotional coping (i.e., efforts to decrease distress caused by the stressor) had a higher incidence of depressive symptoms, while Kidd and Carroll (2007) found that avoidant coping, social withdrawal, and use of alcohol and drug as coping was associated with a higher risk for suicidal ideation. In a qualitative study of Somali unaccompanied refugee minors, Goodman (2004) found that youth coped with the stress of war, migration, and resettlement by focusing on the collective/community and by implementing both avoidant and reappraisal coping strategies. Specific to the U.S. Latino populations, religion and emotional support were salient in the literature and described as common adaptive coping strategies (Cobb et al., 2016; Epstein-Ngo, Maurizi, Bregman, & Ceballo, 2013). Epstein-Ngo et al. (2013) found coping moderated the relation between violence exposure and psychological functioning In Latino youth. Specifically, religious coping buffered the effects of trauma on depression, while denial/avoidant coping exacerbated the effects of violence on PTSD and depression.

Coping styles as a predictor of substance use has also been explored in the literature. Problem-solving coping was related to lower illicit drug use, alcohol and marijuana use (Chiong, Bry, & Johnson, 2010; Van Gundy, Howerton-Orcutt, & Mills, 2015), while avoidance coping was associated with increased odds of aggregate alcohol, marijuana, and illicit drug use (Van Gundy et al., 2015). Similarly, positive coping styles (i.e., engagement) was protective of tobacco and marijuana use, while negative coping (i.e., disengagement) was associated with greater odds of use among adolescents (McConnell, Memetovic, & Richardson, 2014). Age is a significant factor in determining levels of emotional and problem-focused coping, with emotional coping decreasing and problem focused coping over time (Wingo, Baldessarini, & Windle, 2015). This is consistent with theories of child development that suggest coping strategies are responsive to biological, cognitive, and social processes and therefore follow a predictable developmental course (Compas et al., 2001). The literature on coping styles and substance use has largely been conducted with U.S. born samples; there is virtually no research focused on immigrant youth in the U.S.

3. Methods

The current study used a mixed method design to examine the following research questions: (a) What is the experience of trauma in a sample of unaccompanied migrant youth (qualitative and quantitative methods)? (b) What are the coping strategies used by unaccompanied migrant youth (qualitative and quantitative methods)? and (c) How do coping strategies relate to trauma related symptoms (i.e., posttraumatic stress, depression, and suicidal ideation) and substance use behaviors (quantitative methods)?

3.1. Research design

The current study used a convergent parallel mixed-method design, where researchers collected quantitative and qualitative data in parallel, analyzed data separately, and then merged the data in the interpretation and discussion of the findings (Creswell & Plano Clark, 2011). The quantitative data was used to identify adaptive and maladaptive coping strategies and explore how these may relate to trauma incidence, trauma related symptoms, and substance use behaviors. In a convergent design, the purpose is to collect "complimentary data on the same topic" (Morse, 1991, p. 122). A mixed-methods convergent parallel design was the most appropriate approach to answer the research questions because the two forms of data provide greater insight into unaccompanied migrant youth and their well-being in the post-migration context and because there were structural challenges to collecting data that made this approach more feasible; for example, researchers were invited to collect data only during summer school and in one visit (Creswell & Plano Clark, 2011).

Focus groups were chosen as the qualitative approach with youth because it fit with the students' schedules and would be appropriate given the sensitive topics. Eight focus groups, with approximately three youth in each group were conducted with youth. The size of the focus group was slightly smaller than the 5–8 participants typically recommended. Krueger and Casey (2015) speak to the utility of "mini-focus groups" when it is difficult to recruit and host more participants. Focus group participants were separated by sex, as it was anticipated that some experiences might be easier to discuss in same-sex groups. Qualitative interviews followed a semi-structured format. This approach was selected for key informants due to the diversity of viewpoints (parents, teachers, administrators).

3.2. Procedures

Thirty unaccompanied migrant youth were recruited from Communities in Schools (CIS) during the 2016 summer school session at two middle schools and three high schools in a large Southwestern city with large newcomer populations. CIS offers social-emotional and academic services to at risk youth and are the primary school-based provider for mental health services in the area. Youth can be referred to the program by teacher, staff, or a parent and/or they may also self-select. Recruitment efforts for the study focused on newcomer youth who were attending summer school. We define newcomer youth as those students who arrived to the United States within the last three years; this definition is consistent with how the school district defines these youth. Students were eligible if they: (a) spoke English or Spanish, (b) were from Mexico or Central America, (c) traveled to the United States without a parent/guardian (unaccompanied minor), and (d) had arrived to the United States within the last three years. We targeted recruitment to ensure an equal proportion of male and female participants.

The research team members were bilingual and consisted of the principal investigator, a social work master's level student, a social work doctoral student, and mental health staff through CIS. Researchers targeted students for recruitment in two ways: classroom announcements and CIS project managers. In this latter approach, CIS project managers would ask newcomer youth in their program whether they met the criteria for the study. Concurrently, ten key informant interviews were conducted with school personnel and parents/guardians. Parents and school personnel were recruited based on their knowledge of the population, availability, and only if they had a youth involved in the study. The consent process was multifaceted. Once students indicated interest in the study, CIS would call the potential participants' parent/guardian to explain the study. If verbal consent was obtained on the phone, students brought written consent forms home for the parent/guardian's signature. Assent in Spanish and/or English from the participants was obtained prior to the start of the data collection. Consent from the key informants was obtained at the start of the semi-structured interview.

Focus group and semi-structured interviews lasted one hour; were conducted in a private classroom on the school campus; and were audio recorded. Following the youth focus groups, the participants took a battery of clinical measures through Qualtrics (2017). A research assistant read the survey questions aloud in Spanish to the students as they indicated their answers on the iPad. All research protocols and consent forms were in Spanish and English and approved by the Institutional Review Board (IRB) and the school district where the data were collected.

3.3. Sample

For the youth sample, there was an equal proportion of female ($n = 15$) and male ($n = 15$) participants. Participants were from Mexico ($n = 6$), El Salvador ($n = 6$), Guatemala ($n = 8$), and Honduras ($n = 10$). There was a fairly equal distribution of male and female participants across country of origin, with one exception. There was a greater number of male ($n = 5$) than female from Mexico. Twenty percent of the youth sample was ages 11–13, 40% were 14–15 years old, and 40% were 16–17 years old. Per the edibility criteria, all youth had arrived to the U.S. within the last three years. The majority of youth live with a parent(s) ($n = 26$). In the key informant sample, there were six parents; four were from Honduras, one from Mexico, and one from Guatemala. All parents were the biological mothers of youth participants. Among the school personnel, there was one principal (male), two teachers (male), and a CIS provider (female).

3.4. Focus group and semi-structured interview guides

The focus groups were conducted in Spanish and facilitated discussion about life in the home country, reasons for migration, the migration journey, experiences related to post-migration integration, and coping strategies for dealing with stressful life events. Researchers read a redacted case that drew from the lead researcher's work conducting forensic interviews with Central American youth seeking immigration relief. One case was crafted for the female focus group and a separate case was developed for the male focus group (See Appendix A).

The semi-structured interview guide aimed to elicit information about youths' post-migration challenges. School personnel were asked questions like, "What are the main challenges that recent immigrant youth face integrating into the school?" and, "What social, emotional, and academic needs do these youth have?" An example of the questions for parents/guardians included, "Since arriving to the United States, have you been worried your child/family member has experienced heightened sadness, anxiety, irritability?"

3.5. Survey questionnaire

3.5.1. Demographic information

Students were asked to report their gender (M/F), age range (11–13, 14–15, and 16–17 years old), country of birth, and who they lived with at the time of data collection (parent, sibling, other relative).

3.5.2. Trauma exposure

A modified version of the Life Events Scale (LES) (Singer, Anglin, Yu Song, & Lunghofer, 1995) was used to assess trauma exposure. A modified version of the LES was developed to probe youth about more diverse trauma experiences not in the LES. Additionally, the LES is 34 items, while the screener is 17 items (Y/N) and is more targeted towards trauma exposure typically reported by youth in school samples (Jaycox et al., 2009).

Questions probe about different traumatic events, such as: natural disasters, family separation, community and interpersonal violence, and the death of a family member. The items are summed and higher

scores indicate greater exposure. The screener is an event scale and does not measure a single construct. Although it has not been validated, the screener demonstrated strong reliability in the current sample (α = 0.86) and was included so that youth could reference an event when they reported on the PTSD symptoms.

3.5.3. Posttraumatic stress symptoms

Posttraumatic stress symptoms were assessed using a version on the Child Posttraumatic Symptom Scale (CPSS) (Foa, Johnson, Feeny, & Treadwell, 2001). The CPSS is a 26-item self-report measure that assesses PTSD diagnostic criteria and symptom severity in children ages eight to 18. It includes two event items, 17 symptom items, and seven functional impairment items. Only the items that assess posttraumatic symptoms were included (17 items); items assessing traumatic events and functional impairment were omitted. Symptom items are rated on a four-point frequency scale (0 = "not at all" to 3 = "5 or more times a week"). Questions target PTSD clusters: re-experiencing (five items), avoidance (seven items) and hyperarousal (five items). A score of 11 has been used to indicate clinically elevated symptoms of posttraumatic stress in the last month, but clinical experiences suggest a higher score is a more sensitive cut-off to PTSD (Foa et al., 2001). The current study used a cut-off score of 14 to indicate clinically significant symptoms. Although previous research has indicated that the CPSS fits modestly well with the PTSD symptom clusters ((Meyer, Gold, Beas, Young, & Kassam-Adams, 2015), there was strong internal consistency of the CPPS in the sample (α = 0.95).

3.5.4. Child depression symptoms

The Patient Health Questionnaire 9-Adolescent version (PHQ-9) was used to measure the likelihood of depression in youth. There are nine questions used to calculate depression scores. The PHQ-9 is not a diagnostic assessment tool; rather it is a screener that suggests a heightened likelihood of Major Depressive Disorder. The PHQ-9 demonstrated strong reliability in the sample (α = 0.86) and has been validated with Spanish-speaking populations (Huang, Chung, Kroenke, Delucchi, & Spitzer, 2006).

3.5.5. Suicidal ideation

The presence of suicidal ideation was assessed with a single item question taken from the PHQ-9. The question asked, "Has there been a time in the past month when you have had serious thoughts about ending your life?"

3.5.6. Substance use

Eleven single-item questions asked youth about the lifetime frequency of tobacco, alcohol, marijuana, and other illicit drug use (e.g., cocaine, crack, heroin, and methamphetamines) (WestED, 2015). Items were dichotomized (Y/N) and assess substance use behaviors rather than substance use as a concept.

3.5.7. Coping

Participants were asked about how they cope with the stressors in their life. The questions consist of 14 single-item questions that assess coping styles and specific strategies (Kidd & Carroll, 2007). Questions started with the stem, "Please rate how much you use each of the ways of dealing with problems." Responses questions ranged from, 1 = "never," 2 = "almost never," 3 = "sometimes," 4 = "frequently," and 5 = "almost always." Two items assessed *problem-focused coping* (α = 0.69): "Concentrated on how to solve the problem" and "Think about what happened and sort it out in my head." *Avoidant coping* was assessed with two items (α = 0.69): "Try not to think about it" and "I go to sleep." *Social coping* was assessed with a single question: "Go to someone for support." *Social withdrawal* was assessed with a single question, "I go off and think to myself." Coping strategies, "Learn from my experiences," "Use my anger," and "Use drugs and alcohol" were single-item indicators. Finally, adaptive coping strategies that shared strong correlation to one another were combined: "Do a hobby," "Try to value myself," "Realize I am strong," "Think about the future," and "Use my spiritual beliefs/belief in a higher power."

3.6. Data analysis

The eight focus groups and 10 semi-structured interviews were transcribed and analyzed in their original language in order to stay close to the original participant narratives. The interviews were transcribed by a professional transcription company in compliance with the IRB protocol. Three bicultural, Spanish-speaking research assistants coded the data in Dedoose—a web-based software program that facilitates qualitative coding and analysis (Sociocultural Research Consultants, LLC, 2016).

The qualitative data were coded using theoretical thematic analysis described by Braun and Clarke (2006). Theoretical thematic analysis is used to identify, analyze, and report patterns (themes) within the data. In this approach, the research questions drive the data analysis (Braun & Clarke, 2006). The research team read all the transcripts looking for the answer to one research question at a time, and then the team convened to create the section of the codebook that answered the particular research question. In order to establish interrater reliability and finalize the codebook, two coders then went back and coded each transcript using the preliminary codebook as a guide. The research team again met to compare the codes and then the team discussed and resolved discrepancies that surfaced in the coding process. This process was followed for each research question. To triangulate the data, the team also the parent and teacher interviews with the same codebook to determine how these interviews converged or diverged from student's narratives. Once the coding was completed, we collated the coded data. The team refined themes by assessing for external and internal homogeneity. External homogeneity describes the process by which themes are refined so they are distinct categories, while internal homogeneity was assumed when the data within each theme described a cohesive message (Braun & Clarke, 2006). After describing and analyzing each theme and subthemes separately, the team assigned the themes with titles that captured the essence of the theme.

The quantitative data analysis was limited to basic univariate statistical methods due to the sample size. Spearman's correlations were used to evaluate the effect size of the relation between mental health and substance use variables to coping strategies with the purpose of using these estimates to justify a larger study that will be powered to detect statistical differences. Data analyses were conducted in SAS, version 9.3.

4. Results

4.1. Experiences of trauma among unaccompanied migrant youth

Youth report an average number of 8.27 (SD 4.55) traumatic exposures in their lifetime (see Table 1 for frequencies of each exposure). A dominant theme in the study was family separation. In the current study, young people often focused on the experience of separation due to the migration of the parent. One mother said, "In reality it has not been easy. My daughter says, 'why did you leave me?' They question us as parents, and unfortunately I was a single parent." Youth across the eight focus groups discussed long-term separation from their parents. Some youth were raised with a consistent caregiver, while others experienced caregiver instability. One boy from the high school group stated, "My dad came to the U.S. when I was 3 years old and my mom followed him when I was 4 years old. I lived 10 years without my mom and my dad; I lived with my grandmother."

Sadly, without parental protection, many youth were vulnerable to maltreatment. A number of youth and parents described abuse via the designated caregiver. Many youth were guarded and did not give specific details about the maltreatment they experienced—perhaps due to

Table 1
Descriptive findings for mental health, substance use, and coping indicators.

Variables	Mean (standard deviation)/n (%)
Trauma exposure	8.27 (4.55)
In an accident that left you hurt	10 (33.3%)
Saw a person that was hurt or could have died	13 (43.3%)
You or someone hurt in a natural disaster	20 (66.7%)
Someone close to you hurt or sick	16 (53.3%)
Someone close to you died	17 (56.7%)
Suffered illness or taken to hospital urgently	12 (40.0%)
Been separated from someone you depend on	22 (73.3%)
Been attacked by an animal	17 (56.7)
Someone told you they would hurt you	17 (56.7%)
Someone you care about was threatened	16 (53.3%)
Someone has hit you, slapped you, kicked you	18 (60.0%)
You saw someone hit, slapped, kicked	20 (66.7%)
Someone attacked or beat you up	8 (26.7%)
Have witnessed someone attacked or beaten up	16 (53.3%)
Have watched someone attacked by a knife	8 (26.7%)
Saw someone threatened with a gun	11 (36.7%)
Been threatened with a gun	7 (23.3%)
Measures of psychological functioning	
Posttraumatic stress symptoms	16.93 (12.87)
Depressive symptoms	8.03 (6.75)
Suicidal ideation	1.53 (0.89)
Substance use behaviors	
Tobacco	0.10 (0.31)
Alcohol	0.13 (0.35)
Inhalants	0.03 (0.18)
Marijuana	0.10 (0.21)
Cocaine	0.07 (0.25)
Crack	0.03 (0.18)
Ecstasy	0.07 (0.25)
Heroin	0.03 (0.18)
Methamphetamines	0.03 (0.18)
Kush	0.03 (0.18)
Prescription drugs	0.07 (0.25)
Vapor products	0.07 (0.25)
Coping behaviors	
Problem-based coping (2 items, range 2–10)	6.68 (2.35)
Social coping (1 item range 1–5)	3.60 (1.38)
Positive adaptive coping (5 items, range 5–25)	19.40 (1.04)
'Learn from my mistakes' (1 item, range 1–5)	3.13 (1.61)
'Use my anger for good' (1 item, range 1–5)	2.33 (1.53)
Avoidant coping (2 items, range 2–10)	6.50 (2.58)
Social Withdrawal (1 item, range 1–5)	4.03 (1.15)
Use drugs and alcohol to cope (1 item, range 1–5)	1.30 (1.02)

focus group format. One high school boy alluded to abuse by his aunt, "I suffered a lot, my aunt did not love me; unfortunately, I lived there for two years." Details about the abuse were discussed more openly in the parent interviews. One parent described the horror when she learned how her son had been physically abused by her mother:

> … He told me that one time he was going to clean his shoes and grabbed a kitchen rag that my mom had already washed. He must have been eight or nine years old. My mother was so angry that she slapped him and she knocked a tooth out.

Another parent of a middle school girl stated,

> She would call me crying that her stepmother treated her badly and left them alone without any food. He [her father] would say that he was going to send her to this place where misbehaved children are sent in Honduras. Everyone knows of this place—they steal children and sell them… She suffered a lot because her father would hit her.

In addition to suffering maltreatment from caregivers, youth experienced, and/or witnessed significant interpersonal and community violence. Youth reported assault by gang members, sexual assault, attempted kidnappings and sexual violence, and regularly witnessing violence and carnage in the streets. The threat and/or experiences of interpersonal violence led to an omnipresent fear. Participants described hypervigilance and needing to stay aware; "We have to be alert; otherwise, they will kill us." The young women more often discussed fears of sexual assault and kidnapping; "The gangs like to follow people and several times they followed me because they wanted to rape me. They tried to kidnap me and my brother to get money from my dad." Even within the home young women sometimes perceived violence. "My dad drank a lot; sometimes there would be men knocking on the door, trying to harm me or when he drank, he would have drunk friends that would try and abuse me. I preferred to come here because of the danger." The young men discussed fear of forced affiliation with the gangs; "The gangs would warn, 'if you don't join, we are going to kill you.'" Individual stories were tragic but not unique. One high school boy stated,

> They [gang members] started firing… I thought I was going to fall from the tree…I had to climb higher because if they say me they would kill me. I was shaking, crying, I did not know what to do. I was alone, because my dad was working.

Parents and teachers corroborate stories of abuse and highlight the effect that these experiences have had on the young people. A high school teacher said, "…kids have been traumatized. I mean…the girls you can see what happened to them. The boys too; I think some of the boys have [also] been sexually abused." Some kids even experienced direct threats. One parent discussed the murder of her relative: "Where they lived, people would throw rocks at the house and they would say, 'we are going to kill everyone in the family'.

What made the situation worse for youth and their caregivers was the lack of institutional protection in the countries of origin. Law enforcement was often involved with gangs and therefore there was no one to help victimized youth or the presence of law enforcement presence seemed to invite armed conflict and therefore youth were unsafe because of the escalated violence. A middle school female student stated, "There is a lot of violence in our countries, especially because gangs buyout law enforcement." Likewise, another student stated, "Sometimes, it is better not to have law enforcement around because our streets are quiet and calm." Overall, there is a general sense by youth that they are unprotected; there is no reciprocity for crime victims, and the only way to stay safe is to remain invisible and migrate to the U.S.

To a much lesser extent, youth discussed extreme poverty and deprivation, even with parents sending money from the U.S. In some cases, youth who suffered severe abuse from or death/loss of caregivers were left to fend for themselves. One high school male student reflected about what happened after the death of his grandparent, "Basically, my life was destroyed, problems after problems. Well, I almost ended up on the street, bounced around like a dog." For most youth, migration was identified as their only option to alleviate poverty, reunite with family, escape interpersonal violence, and seek safety from the police and gang violence and extortion. Therefore, it was not surprising that participants, regardless of their circumstance, described a sense of promise, opportunity, and protection in the United States; "It is a privilege to be in the United States. If we study, there is no use of it over there [because] there is no work."

Although much of the discussion about the trauma experiences of youth focused the pre-migration context, youth did report traumatic events in the migration journey and in the post-migration context. Participants spoke about violent interactions with transnational gangs, as well as with police and immigration enforcement agents. A high school boy stated,

> In Guatemala, we did not want to cross by land. So went by boat. On the beach outside of Mexico, the Coast Guard found us. They told us, 'stop right there.' It was night and they started shooting at us. We couldn't see anything. We climbed a tree and slept on top of the branches. The ants were biting us.

Youth were targets for kidnapping and were vulnerable to violence, rape, murder, and abandonment. Participants spoke about the violence on the trains, as well as being deserted by coyotes (Spanish slang for "smuggler"). One high schooler said, "He [participant's friend] saw on the train what they [the gangs] did to women and how they killed people. He was 17 years old like me." Another said, "A friend of mine… was locked up in a small room by the coyotes. When the coyotes released them…he was lost for the longest time." An example of the gender-based violence was highlighted in this middle schooler's narrative, "there was a girl who suffered a lot. …she was traveling with a group of men. They forced her to cook….and threatened to abandon her if she refused."

Some youth experienced significant adversity in the U.S. post-migration context. Participants discussed intense grief about separation and worried about the safety of family members they left behind; one high schooler stated, "the biggest stress is whether or not my family is okay." Youth often live in neighborhoods in the U.S. with some of the same problems they experienced in their countries of origin. For example, one participant stated, "There are a lot of gangs in [city of interview], like in Honduras. You cannot go outside [...] Two days ago someone was murdered in front of my apartment complex […]." To some degree, the youth have come to expect this and accept that violence is part of everyday life. As one high school student remarked, "They [the gang members] just threaten us or they hit us. But they do not kill us."

While most youth were reunited with family shortly after migration, a small number of the participants discussed being in immigration detention for a long time. Youth were detained in shelters through the Office of Refugee and Resettlement while they waited to be reunited with family. Detention for some youth increased feelings of desperation and heightened their anxiety about reunification. One middle school female student stated, "When I arrived, I was in detention. I was sad because some [youth] came and others left. It was hard for me because all I wanted was to go with my mom." Another high school female student stated, "They [immigration] detained me for eight months."

4.2. Coping strategies used by unaccompanied migrant youth

The research team used both qualitative and quantitative methods to identify coping strategies among youth and explore how these strategies relate to trauma related indicators, such as posttraumatic stress symptoms, depression symptoms, suicidal ideation, and substance use behaviors. Table 1 summarizes descriptive information on the coping strategies, psychological functioning, and substance use indicators reported by youth.

Both quantitative and qualitative findings suggest that youth use a variety of adaptive coping strategies. In the quantitative results, youth answered on a scale of 1–5 how often they used different coping strategies to deal with challenges in their lives. On most of the adaptive coping strategies, scores were above the mean suggesting that many youth implemented these adaptive approaches at least some of the time to manage their challenges. Some of the adaptive coping strategies reported in the youths' narratives include: talking to friends, family and/or a counselor at school, getting out of the house to hang out with friends, play sports, take a walk, and/or go to church. As one high school female student said, "…if something happens to you and you keep it inside, all the memories come back and it hurts you. But if you talk to someone [a counselor] all of it leaves you and then after, the person can give you advice on how to confront your problems." A high school male participant mentioned something similar, with the focus on going to church: "If I feel overwhelmed, I speak to my pastors and I feel relieved because they give me advice. Prayer and God is how I overcome…it helps me so much." For some, getting out of the house was a good distraction and helped them feel less overwhelmed. One high school girl stated, "Instead of feeling like that [sad]…I tell my mom to take me to the park to chill…that helped me relax so when I get home… I am tired and can fall asleep easily." In sum, the qualitative and quantitative findings that focus on adaptive coping seem to be consistent. During the focus groups, youth identified coping strategies that focused on seeking guidance, religion, and distraction from sports and activities, like taking walks. In the survey, more than half of youth also positively endorsed that they, at least sometimes, use many of these adaptive coping strategies.

Youth also discussed coping strategies in the focus groups and many of these were corroborated by the survey data. Some of the maladaptive coping strategies included: social isolation and withdrawal, avoidance, self-harm behavior, and substance use. Social isolation in newcomer youth can cause added stress during the acculturation process. One high school female student stated, "I am one of those people who prefers to keep everything I feel inside. Because if you tell someone and then later they get angry with you, they will go tell half the kids in school." In the focus groups with female participants, self-harm behavior like cutting was often discussed. For example, one high school female student stated, "Everything is different [here] and some youth start to feel depressed, use drugs, and run away from home. I did not get that bad, but I did cut myself." For one, cutting started in home country:

> When I was little in my country I would cut myself. My mind would tell me that I would feel better, even though that was not true. Many say that the wounds outside hurt more than those inside so you focus on the pain outside. But it's deceptive. You lie to yourself because it is not true.

Other female students spoke about hearing and seeing scarring on their friends and classmates; "I know girls that cut their legs with a Gillette [razor]. I had a friend in middle school that would go to the bathroom to cut herself at school. She told me she did it to escape the problems at home."

In addition to cutting, youth spoke escaping their problems through drugs and alcohol. One high school make student stated, "What I did before [to deal with my problems] is use drugs. I very bad. I wanted to erase the suffering I lived in Mexico." A female student describes the urge to escape; "I never told them that I was about to use drugs. I was going to smoke marijuana. But then I listened to the experiences of others, and said to myself, this is very bad. I have to think of the future." In the survey, there were no indicators for self-harm behavior but questions about drug use and social withdrawal were asked. While few students described using drugs in the survey data to escape their problems, more than half reported social withdrawal.

4.3. Coping strategies and their relation to mental health and substance use outcomes

Beyond identifying adaptive and maladaptive coping strategies, there was interest in understanding how coping strategies relate to PTSD and depressive symptoms and suicidal ideation, as well as the lifetime use of substances. Spearman's correlations were conducted to examine the relation adaptive and maladaptive coping strategies to trauma exposure, PTSD and depressive symptoms, suicidal ideation, and lifetime substance use (See Tables 2 and 3).

Coping strategies that are problem-focused, like 'think about how to resolve the problem' and 'learn from my experiences' were associated only with age, indicating that these more cognitive coping skills increased with age and maturity. Adaptive coping skills, such as social coping and other positive strategies, like belief in religion, hobbies, and sports, were not associated with trauma exposure, PTSD, depression, or suicidal ideation. On the other hand, maladaptive coping strategies, such as social withdrawal, avoidance, and drugs and alcohol were associated with at least one adverse outcome. Social withdrawal was the only indicator that was associated with all four adverse outcomes. 'Use my anger for good' was correlated with higher PTSD and depression, while it was not associated with trauma exposure or suicidal ideation.

Spearman's correlations were also conducted to examine the

Table 2
Spearman correlations for age, depression, trauma, and suicidal ideation and coping.

	Problem-focused coping	Social coping	positive adaptive coping	Learn from experiences	Use my anger for good	Avoidant coping	Social withdrawal	Drugs and alcohol
Age	0.47**	0.11	0.11	0.37*	0.09	0.16	0.11	0.14
Trauma Exposure	0.22	−0.24	0.25	0.33	0.20	0.29	0.57***	0.33
PTSD	0.22	0.11	0.23	0.07	0.48**	0.62***	0.47**	0.28
Depression	0.24	0.08	0.06	−0.03	0.51**	0.57***	0.47**	0.39*
Suicidal ideation	0.05	−0.10	−0.08	0.02	0.29	0.49**	0.38*	0.31

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

relationship between the aforementioned coping strategies and each of the substance use variables. Problem-focused coping was inversely associated with marijuana use such that less problem-focused coping was associated with greater marijuana use. Social coping was inversely associated with cocaine use, ecstasy, prescription drugs, and vapor products, with greater social coping indicating less use. Finally, adaptive coping (e.g., try and value myself and not think so much of other people's opinions, realize I am strong…) was inversely associated with all substances except tobacco.

5. Discussion

The purpose of the current study was to understand the trauma experiences of unaccompanied migrant youth, identify some of their coping strategies, and how these strategies relate to psychological functioning (posttraumatic stress, depressive symptoms, and suicidal ideation) and substance use behaviors. Qualitative narratives of trauma were consistent with those published in reports by international organizations that have sought legal protections for Central American children (UNHCR, 2014; USCCB, 2012). Many youth in the sample report personal experiences with interpersonal violence, such as neglect, physical abuse, sexual assault, and kidnapping. Almost all of the youth reported exposure to community-based violence in their countries of origin, mostly perpetrated by transnational gangs and local and state police.

Findings from the quantitative data on trauma, depression, and suicidal ideation are in-line with high trauma exposure. The mean of trauma exposures was over eight. Even youth who did not have clinical levels of PTSD and/or depression reported significant trauma exposure. Over half of the youth scored in the clinical range for PTSD, 30% in the range of possible Major Depressive Disorder, and 30% reported suicidal ideation in the last year. Of these youth, 100% who were in the clinical range for PTSD also scored in the range for possible depression—indicating the likelihood of co-occurring mental health disorders. These findings are consistent with data on adolescent refugees in the U.S. (Fawzi et al., 2009) but are higher than the percentage of PTSD (32%) and depression symptoms (24%) found in a recent sample of Central American adults surveyed at the U.S.-Mexico border (Keller, Joscelyne, Granski, & Rosenfeld, 2017). The higher percentage of psychiatric morbidity in the sample is likely, at least in part, due to the recruitment strategy. Communities in Schools is a program that provides youth emotional and learning support. Youth in the program were identified as needing support by teachers or parents and/or youth self-select into the program. Additionally, youth were recruited during summer school and this may be an indicator that these youth were struggling more than some of their peers. As such, the higher rates of psychiatric morbidity in the sample is related, at least in part, to selectivity of youth. Recruitment in a less symptomatic sample would likely yield lower PTSD, depressive symptoms, and suicidal ideation.

Related to the coping strategies, participant narratives elaborated on the power of religion, family, healthy distraction (e.g., sports, music) and social support to help deal with the past and current experiences. At the same time, youth spoke candidly about how difficult it is to trust people, as well as avoid maladaptive coping strategies like cutting and drug use. Participant narratives from the focus group were consistent with the responses from the survey data, with youth reporting the use of both adaptive and maladaptive strategies. Consistent with research on Latinos (Cobb et al., 2016; Crockett et al., 2007; Epstein-Ngo et al., 2013) and other refugee samples (Finklestein et al., 2012; Goodman, 2004; Matheson et al., 2008), maladaptive coping strategies such as social withdrawal, avoidance, and drugs and alcohol were associated to lower psychological functioning. Social withdrawal in particular was a salient factor and was correlated to PTSD, depression and suicidal ideation.

It was surprising that adaptive coping skills were not associated with better psychological functioning, with the exception of 'use my

Table 3
Spearman correlations for substance use variables by types of coping strategies.

	Problem focused	Avoidant coping	Social coping	Social withdrawal	Learn from experience	Use my anger	Adaptive coping
Age	0.47**	0.16	0.11	0.11	0.37*	0.08	0.14
Tobacco	−0.02	−0.15	0.02	−0.11	0.25	−0.07	−0.18
Alcohol	−0.19	−0.07	−0.25	−0.18	0.02	−0.02	−0.53**
Inhalants	−0.31	−0.26	−0.36	0.16	−0.02	−0.16	−0.51**
Marijuana	−0.36*	−0.11	−0.31	−0.11	−0.07	−0.07	−0.62***
Cocaine	−0.22	−0.11	−0.51**	0.22	−0.02	0.03	−0.47**
Crack	−0.31	−0.26	−0.36	0.16	−0.02	−0.16	−0.51**
Ecstasy	−0.22	−0.11	−0.51**	0.22	−0.02	0.03	−0.47**
Heroin	−0.31	−0.26	−0.36	0.16	−0.02	−0.16	−0.51**
Meth.	−0.31	−0.26	−0.36	0.16	−0.02	−0.16	−0.51**
Kush	−0.31	−0.26	−0.36	0.16	−0.02	−0.16	−0.51**
Prescription drugs	−0.22	−0.11	−0.51**	0.23	−0.02	0.03	−0.47**
Vapor products	−0.22	−0.11	−0.51**	0.23	−0.02	0.03	−0.47**

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

anger for good." The direction of this latter coping strategy was counterintuitive, as it was associated with higher rather than lower PTSD and depression indicators. This latter finding may be evidence of measurement error, as several items were single indicators rather than validated and culturally tailored scales. Problem-focused coping was not associated with PTSD, depression, or suicidal ideation in the current sample. Research on problem-focused coping has been mixed in similar populations. For example, Cobb et al. (2016) found that problem-focused coping was positively associated with depression in a sample of undocumented Latino immigrants, while Crockett et al. (2007) found that it was a salient predictor of better adjustment in Mexican American college students. There was a positive correlation between age and problem-focused coping, indicating that these more cognitive coping skills increased with maturity. This finding is consistent with theory and research on child development (Compas et al., 2001).

Finally, there was a relatively low proportion of lifetime substance use (about 17%). With a few exceptions, most use was with tobacco, alcohol, and marijuana—the three most frequently used drugs during adolescence (Johnston, O'Malley, Mieh, Bachman & Schulenberg, 2015). These findings are consistent with data on Latino immigrant youth in the U.S. (not specifically unaccompanied migrant youth) that show low relative risk of 30-day substance use compared to second generation and third-plus generation Latino youth (Peña et al., 2008; Prado et al., 2009). This is one of the first studies to examine how coping styles may relate to substance use in immigrant youth. The study found that lower problem-focused coping was associated higher marijuana use, while greater social coping was associated with less cocaine, ecstasy, prescription drugs, and vapor use. A positive finding was the relation between adaptive coping strategies (e.g., try and value myself and not think so much of other people's opinions, realize I am strong…) and all substances except tobacco. Greater adaptive coping strategies suggest youth are less likely to use substances. These findings are largely consistent with the previous research on coping and substance use in adolescent samples (Chiong et al., 2010; McConnell et al., 2014; Van Gundy et al., 2015).

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The study findings should be considered in the context of several significant methodological limitations. Data collection occurred in the U.S. and previous history of mental health symptoms prior to migration was not obtained. The cross-sectional nature of the data do not allow for more complex questions of causality between trauma exposure, PTSD, depressive symptoms, and substance use. There were also some significant limitations in the chosen measurements. Several of the indicators, like suicidal ideation, were single-item indicators. As such, this is not comprehensive or diagnostic. Additionally, although the coping measure subscales had adequate reliability, this does not indicate that the measure was valid and culturally attuned to the ways that unaccompanied migrant youth cope with stress. Also, while we used the focus group format to decrease stigma and encourage a collective conversation about migration, the narratives largely focused on the pre-migration context. Perhaps, this is where youth felt most stress and experienced the greatest exposure to trauma. A next step would be to conduct semi-structured interviews to ask more directed questions about the peri-migration and post-migration context. Perhaps most limiting was the sample size. This was a "proof of concept" study that was developed to: (a) show evidence that recruitment of unaccompanied migrant youth in the schools was feasible, and (b) provide evidence that a larger study on the topic area was needed. Statistical power was prohibitive and analyses do not control for other confounding factors that may explain the associations described above. Thus, few conclusions beyond this small, highly selective sample can be drawn. Yet the fact that the qualitative narratives were consistent with the quantitative findings does strengthen the confidence of the conclusions drawn from the data.

6. Conclusion

Homicide rates in Honduras, El Salvador, and Guatemala are ranked first, fourth and fifth in the world, with more than a quarter of homicide victims under the age of 20 (United Nations Office on Drugs and Crime, 2013). Most youth face extreme hardship in their countries of origin and these hardships seem to continue in the post-migration context. Youth run to the U.S. only to stand still – often facing immigration limbo, deportation, untreated mental illness, and challenges with school integration. While more research is needed to understand the needs of these youth, the findings from this study suggest that youth have complex mental health needs. Maladaptive coping, such as social withdrawal, was related to greater mental health problems, while adaptive coping was a factor that protected against active substance use. Coping strategies may provide a concrete point of intervention that would benefit youth with significant mental health problems, as well as those that do not meet the full criteria but are symptomatic. Increasing adaptive coping are core components of evidenced-based interventions like Cognitive Behavioral Intervention for Trauma in Schools (Jaycox et al., 2002). The delivery of these mental health interventions in schools is critical and will assist in reaching youth who may otherwise not receive services. Mental health services should not be made exclusively on meeting the criteria for these disorders, as all youth in the sample demonstrated significant trauma exposure. Practitioners should be adequately trained to meet the complex needs of trauma-exposed youth, both in executing evidenced-based interventions and in teaching prosocial strategies and emotional regulation to youth.

Conflict of interest

None.

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Appendix A. Case study for focus group with female participants

Juana is fifteen. She left San Pedro Sula, Honduras about a year ago. At the time, she was living with her grandmother in house purchased by

her mother. Juana's mother came to the United States when she was 3 years old. Although they frequently talk by phone, Juana had not seen her mother since came to the United States.

Juana attended school until she was thirteen. She stopped going to school because the gang violence in her community was so severe that she did not feel safe leaving her house. On several occasions, she was approached by gang members about joining; they insisted that she be the girlfriend of one of the leaders. When Juana declined, the gang members started to threaten her and her younger sisters. The gang left a picture of a girl who had been strangled and dumped in the river with a note saying, "watch yourself, you could be next." Once she left her house to go buy food at the store and was followed by gang members who tried to kidnap her. She was beaten and suffered a concussion. Things got so bad for Juana that she decided to risk it all and come to the United States find her mother. Her grandmother did not want her to leave Honduras but admitted that she could no longer keep her safe.

Juan left San Pedro Sula in April 2014. She hired a coyote to help her get to the U.S.-Mexico border. Although she paid the coyote 3000 U.S. dollars, she took her money and abandoned her once they got to Guatemala. Juana was alone and did not know anyone. She was robbed twice while waiting for the bus to go to Mexico. Finally after a couple of months, Juana worked to save enough money hire another person to take her to the U.S.-Mexico border. Three months after she left Honduras, Juana arrived to the United States.

Juana spent a month in the shelter in Brownsville, Texas while they located her mother in Houston, Texas. She was united with her mother in Houston. At first, Juana was relieve and extremely happy. She had not seen her mother in 12 years and therefore she was determined to make up for lost time. However, things were complicated. Juana's mother had remarried and had 2 young children. Juana felt jealous of her siblings and angry with her mother for leaving her in Honduras. She did not know her step-father, and was resentful that he tried to tell her what to do. Juana and her mother and stepfather would often argue and Juan would feel angry that they threated her differently than her other siblings. She did not understand why after all of these years, her mother felt that she could tell her how to live her life. Juana felt a lot of stress at home.

Juana started attending a high school in her neighborhood. She had not attended school in a few years and is afraid that she will not be able to learn English and complete her high school degree. Juana struggles to understand the school work. Often, Juan finds herself unable to pay attention and is preoccupied with feelings of sadness. She misses her grandmother in Honduras and feels afraid that the gang members would retaliate against her. She is also overwhelmed by her memories of Honduras and the migration journey. She says that being lost in Guatemala was one of the scariest experiences of her life. Sometimes Juan falls asleep in class because at home she is too anxious to sleep at night or she has nightmares of the terrible things she saw when she was traveling to the United States.

Juana thought life in the United States would be easier but the stress at home and school have made her transition feel impossible. Most of the time Juana feels sad, hopeless, and alone. Recently, to deal with the stress Juana has started skipping school. When she skips school, Juana will spoke marijuana and drink alcohol. Juana says that smoking and drinking help her deal with the stress of life in the United States.

Examples of prompts for the focus group:

What are the main stressors experienced by Juana?

How many of your friends have experienced similar hardships as Juana?

What are common stressors for youth, like Juana, who have come to the United States to escape violence and/or reunify with family/friends?

How do youth, with similar experiences as Juana, cope with their stress?

If you feel comfortable, can you talk about how you cope with stress?

How common is it for you to hear about youth using drugs and alcohol to deal with their stress?

Why do you think youth use drugs and alcohol to deal with stress?

What are other ways that Juana, and others like her, may deal with the stress of living in the U.S.?

References

AI (Amnesty International) (2010). Invisible Victims: Migrants on the Move in Mexico. *London*http://www.amnestyusa.org/sites/default/files/amr410142010eng.pdf.

Alisic, E., Zalta, A. K., Van Wesel, F., Larsen, S. E., Hafstad, G. S., Hassanpour, K., & Smid, G. E. (2014). Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: Meta-analysis. *The British Journal of Psychiatry, 204*(5), 335–340. http://dx.doi.org/10.1192/bjp.bp.113.131227.

Attanayake, V., McKay, R., Joffres, M., Singh, S., Burkle, F., & Mills, E. (2009). Prevalence of mental disorders among children exposed to war: A systematic review of 7,920 children. *Medicine, Conflict, and Survival, 25*(1), 4–19. http://dx.doi.org/10.1080/13623690802568913.

Blumenthal, H., Blanchard, L., Feldner, M., Babson, K. A., Leen-Feldner, E. W., & Dixon, L. (2008). Traumatic exposure, posttraumatic stress, and substance use among youth: A critical review of the literature. *Current Psychiatry Reviews, 44*(4), 228–254. http://dx.doi.org/10.2174/157340008786576562.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. http://dx.doi.org/10.1191/1478088706qp063oa.

Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders, 82*(2), 217–225. http://dx.doi.org/10.1016/j.jad.2003.12.013.

Chiong, A. S., Bry, B. H., & Johnson, V. L. (2010). Mediators between coping styles and substance use/intentions in urban, high school freshmen. *Addictive Behaviors, 35*(1), 57–59. http://dx.doi.org/10.1016/j.addbeh.2009.08.008.

Cobb, C. L., Xie, D., & Sanders, G. L. (2016). Coping styles and depression among undocumented Hispanic immigrants. *Journal of Immigrant and Minority Health, 18*(4), 864–870. http://dx.doi.org/10.1007/s10903-015-0270-5.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127*(1), 87–127. http://dx.doi.org/10.1037/0033-2909.127.1.87.

Cox, T., & Ferguson, E. (1991). Individual differences, stress and coping. In C. L. Cooper, & R. Payne (Eds.). *Personality and stress: Individual differences in the stress process* (pp. 7–30). Oxford, England: John Wiley & Sons.

Creswell, J., & Plano Clark, V. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sagehttp://dx.doi.org/10.1111/j.1753-6405.2007.00096.x.

Crockett, L. J., Iturbide, M. I., Torres Stone, R. A., McGinley, M., Raffaelli, M., & Carlo, G. (2007). Acculturative stress, social support, and coping: Relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology, 13*(4), 347–355. http://dx.doi.org/10.1037/1099-9809.13.4.347.

Dube, S. R., Anda, R. F., Felitti, V. J., Chapman, D. P., Williamson, D. F., & Giles, W. H. (2001). Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: Findings from the adverse childhood experiences study. *Journal of the American Medical Association, 286*(24), 3089–3096. http://dx.doi.org/10.1001/jama.286.24.3089.

Dube, S. R., Anda, R. F., Felitti, V. J., Edwards, V. J., & Croft, J. B. (2002). Adverse childhood experiences and personal alcohol abuse as an adult. *Addictive Behaviors, 27*(5), 713–725. http://dx.doi.org/10.1016/S0306-4603(01)00204-0.

Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: The adverse childhood experiences study. *Pediatrics, 111*(3), 564–572. http://dx.doi.org/10.1542/peds.111.3.564.

Epstein-Ngo, Q., Maurizi, L. K., Bregman, A., & Ceballo, R. (2013). In response to community violence: Coping strategies and involuntary stress responses among Latino adolescents. *Cultural Diversity and Ethnic Minority Psychology, 19*(1), 38–49. http://dx.doi.org/10.1037/a0029753.

Fawzi, M., & Stein, A. (2003). Mental health of refugee children: Comparative study. *BMJ, 327*, 134. http://dx.doi.org/10.1136/bmj.327.7407.134.

Fawzi, M. C. S., Betancourt, T. S., Marcelin, L., Klopner, M., Munir, K., Muriel, A. C., ... Mukherjee, J. S. (2009). Depression and post-traumatic stress disorder among Haitian immigrant students: implications for access to mental health services and educational programming. *BMC Public Health, 9*, 482. http://dx.doi.org/10.1186/1471-2458-9-482.

Finklestein, M., Laufer, A., & Solomon, Z. (2012). Coping strategies of Ethiopian immigrants in Israel: Association with PTSD and dissociation. *Scandinavian Journal of Psychology, 53*, 490–498. http://dx.doi.org/10.1111/j.1467-9450.2012.00972.x.

Foa, E. B., Johnson, K. M., Feeny, N. C., & Treadwell, K. R. H. (2001). The Child PTSD Symptom Scale: A preliminary examination of its psychometric properties. *Journal of Clinical Child Psychology, 30*, 376–384.

Goodman, J. H. (2004). Coping with trauma and hardship among unaccompanied refugee youths from Sudan. *Qualitative Health Research, 14*(9), 1177–1196. http://dx.doi.org/10.1177/1049732304265923.

Huang, F. Y., Chung, H., Kroenke, K., Delucchi, K. L., & Spitzer, R. L. (2006). Using the

patient health questionnaire-9 to measure depression among racially and ethnically diverse primary care patients. *Journal of General Internal Medicine, 21*(6), 547–552. http://dx.doi.org/10.1111/j.1525-1497.2006.00409.x.

Jani, J., Underwood, D., & Ranweiler, J. (2016). Hope as a crucial factor in integration among unaccompanied immigrant youth in the USA: A pilot project. *Journal of International Migration and Integration, 17*(4), 1195–1209. http://dx.doi.org/10.1007/s12134-015-0457-6.

Jaycox, L. H., Stein, B. D., Kataoka, S. H., Wong, M., Fink, A., Escudero, P., & Zaragoza, C. (2002). Violence exposure, posttraumatic stress disorder, and depressive symptoms among recent immigrant school children. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*(9), 1104–1110. http://dx.doi.org/10.1097/00004583-200209000-.

Jaycox, L. H., Langley, A. K., Stein, B. D., Wong, M., Sharma, P., Scott, M., & Schonlau, M. (2009). Support for students exposed to trauma: A pilot study. *School Mental Health, 1*(2), 49–60. http://dx.doi.org/10.1007/s12310-009-9007-8.

Johnston, L. D., O'Malley, P. M., Mieh, R. A., Bachman, J. G., & Schulenberg, J. E. (2015). *2013 overview: key findings on adolescent drug use.* Ann Arbor, MI: Institute for Social Research.

Kataoka, S. H., Stein, B. D., JaycoxJaycox, L. H., Wong, M., Escudero, P., Tu, W., & Fink, A. (2003). A school-based mental health program for traumatized Latino immigrant children. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*(3), 311–318.

Keles, S., Friborg, O., Idsøe, T., Sirin, S., & Oppedal, B. (2018). Resilience and acculturation among unaccompanied refugee minors. *International Journal of Behavioral Development, 42*(1), 52–63. http://dx.doi.org/10.1177/0165025416658136.

Kidd & Carroll (2007). Coping and suicidality among homeless youth. *Journal of Adolescence, 30*, 283–296.

Keller, A., Joscelyne, A., Granski, M., & Rosenfeld, B. (2017). Pre-migration trauma exposure and mental health functioning among Central American migrants arriving at the US border. *PLoS One, 12*(1), http://dx.doi.org/10.1371/journal.pone.0168692.

Krueger, R. A., & Casey, M. A. (2015). Participants in a focus group. *Focus groups: A practical guide for applied research.* Thousand Oaks, CA: Sage.

Lazarus, R. S., & Folkman, S. (1984). Coping and adaptation. *The handbook of behavioral medicine* (pp. 282–325). .

Matheson, K., Jorden, S., & Anisman, H. (2008). Relations between trauma experiences and psychological, physical and neuroendocrine functioning among Somali refugees: Mediating role of coping with acculturation stressors. *Journal of Immigrant and Minority Health, 10*(4), 291–304. http://dx.doi.org/10.1007/s10903-007-9086-2.

McConnell, M. M., Memetovic, J., & Richardson, C. G. (2014). Coping style and substance use intention and behavior patterns in a cohort of BC adolescents. *Addictive Behaviors, 39*(10), 1394–1397. http://dx.doi.org/10.1016/j.addbeh.2014.05.018.

McGregor, L. S., Melvin, G. A., & Newman, L. K. (2015). Familial separations, coping styles, and PTSD symptomatology in resettled refugee youth. *Journal of Nervous and Mental Disease, 203*(6), 431–438. http://dx.doi.org/10.1097/NMD.0000000000000312.

Meyer, R. M., Gold, J. I., Beas, V. N., Young, C. M., & Kassam-Adams, N. (2015). Psychometric evaluation of the child PTSD symptom scale in Spanish and English. *Child Psychiatry & Human Development, 46*(3), 438–444. http://dx.doi.org/10.1007/s10578-014-0482-2.

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research, 40*(2), 120–123.

Olff, M., Langeland, W., & Gersons, B. P. (2005). The psychobiology of PTSD: coping with trauma. *Psychoneuroendocrinology, 30*(10), 974–982. http://dx.doi.org/10.1016/j.psyneuen.2005.04.009.

Peña, J. B., Wyman, P. A., Brown, C. H., Matthieu, M. M., Olivares, T. E., Hartel, D., et al. (2008). Immigration generation status and its association with suicide attempts, substance use, and depressive symptoms among Latino adolescents in the USA. *Prevention Science, 9*(4), 299–310.

Prado, G., Huang, S., Schwartz, S. J., Maldonado-Molina, M. M., Bandiera, F. C., de la Rosa, M., et al. (2009). What accounts for differences in substance use among U.S.-born and immigrant Hispanic adolescents?: Results from a long a longitudinal prospective cohort study. *Journal of Adolescent Health, 45*(2), 118–125.

Qualtrics (2017). *Qualtrics [computer software].* Provo, UT: Qualtrics.

Roth, B. J., & Grace, B. L. (2015). Falling through the cracks: The paradox of post-release services for unaccompanied child migrants. *Children and Youth Services Review, 58*, 244–252. http://dx.doi.org/10.1016/j.childyouth.2015.10.007.

Sandler, I. N., Wolchik, S. A., MacKinnon, D., Ayers, T. S., & Roosa, M. W. (1997). Developing linkages between theory and intervention in stress and coping processes. *Handbook of children's coping* (pp. 3–40). Boston, MA: Springer. http://dx.doi.org/10.1007/978-1-4757-2677-0_1.

Singer, M. I., Anglin, T. M., Yu Song, L., & Lunghofer, L. (1995). Adolescents' exposure to violence and associated symptoms of psychological trauma. *JAMA, 273*(6), 477–482. http://dx.doi.org/10.1001/jama.1995.03520300051036.

Shonkoff, J. P., Garner, A. S., The Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, Dependent Care, and Section on Developmental and Behavioral Pediatrics, Siegel, B. S., Dobbins, M. I., ... Wood, D. L. (2012). The lifelong effects of childhood adversity and toxic stress. *Pediatrics, 129*, e232–e246. http://dx.doi.org/10.1542/peds.2011-2663.

SocioCultural Research Consultants, LLC (2016). *Dedoose (version 7.0.23) [computer software].* Los Angeles, CA: SocioCultural Research Consultants, LLC.

Unger, J. B., Kipke, M. D., Simon, T. R., Johnson, C. J., Montgomery, S. B., & Iverson, E. (1998). Stress, coping, and social support among homeless youth. *Journal of Adolescent Research, 13*(2), 134–157. 10.1177%2F0743554898132003.

UNHCR (United Nations High Commissioner for Refugees) (2014). Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection. Washington, DC http://www.unhcr.org/56fc266f4.html.

United Nations Office on Drug and Crime [UNODC]. Global Study on Homicides (2013). Trends, contexts and data. United Nations, No. 14.IV.1. Retrieved December 5, 2017 from https://www.unodc.org/documents/gsh/pdfs/2014_GLOBAL_HOMICIDE_BOOK_web.pdf.

USCCB (United States Catholic Conference of Bishops) (2012). The changing face of the unaccompanied alien child: A portrait of foreign-born children in federal foster care and how to best meet their needs. Washington, DC http://www.usccb.org/about/children-anorn-Children-in-Federal-Foster-Care-and-How-to-Bestin-Federal-Foster-Care-and-How-to-Best-Meet-Their-Needs_USCCB-December-2012.pdf.

Van Gundy, K. T., Howerton-Orcutt, A., & Mills, M. L. (2015). Race, coping style, and substance use disorder among non-Hispanic African American and white young adults in south Florida. *Substance Use & Misuse, 50*(11), 1459–1469. http://dx.doi.org/10.3109/10826084.2015.1018544.

WestEd (2015). *California Healthy Kids Survey.* WestEd: San Francisco.

Wingo, A. P., Baldessarini, R. J., & Windle, M. (2015). Coping styles: Longitudinal development from ages 17 to 33 and associations with psychiatric disorders. *Psychiatry Research, 225*(3), 299–304. http://dx.doi.org/10.1016/j.psychres.2014.12.021.