

Unaccompanied Children in the United States: Mental Health, Adversity and Employment as Markers of Immigrant Integration

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BOSTON COLLEGE
School of Social Work

UNACCOMPANIED CHILDREN IN THE UNITED STATES: MENTAL HEALTH,
ADVERSITY AND EMPLOYMENT AS MARKERS OF IMMIGRANT INTEGRATION

A dissertation
by

ROBERT G. HASSON III

Submitted in partial fulfillment
of the requirements for a degree of
Doctor of Philosophy

MARCH 2019

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Abstract

Unaccompanied children have arrived at the US border in increasing numbers since 2012, reaching a peak of 59,692 children apprehended at the US border in 2016. This dissertation includes three studies to better understand the characteristics of integration as experienced by unaccompanied children who arrive to the US. The first study examines rates of PTSD in a sample of unaccompanied children receiving post release services. This study also includes a confirmatory factor analysis to examine the theoretical structure of the Child PTSD Symptom Scale (CPSS). The second study examines factors associated with adversity experienced by unaccompanied children who are exiting a long term foster care program. The third study examines factors associated with employment outcomes for unaccompanied children exiting the Unaccompanied Refugee Minor (URM) federal foster care program. Together, the three studies comprise an exploratory dissertation that sheds light on the characteristics of two primary features of immigrant integration, namely mental health and employment.

DEDICATION

To Caitlin, my bride, my best friend, my lass, ma chérie.

To my mum, who showed me how to be a person for others.

To my dad, who taught me what leadership is, literally from the moment I was born.

ACKNOWLEDGEMENTS

My identity as a social worker and scholar can be easily traced to my parents, Bob and Sue. My mom has helped me understand the importance of being a person for others and to accompany people in need. Throughout all of my work, my mom has helped me remain committed to being a person for others above all else. My dad has modeled for me what leadership looks like, and I've long admired his ability to apply intellect and wisdom to practice settings. My dad has inspired me since I was born, and he has always been my hero. The values my parents modeled for me can be found within this body of work, and I acknowledge with gratitude and deep appreciation their time, their love, and their unending support of my endeavors.

This dissertation would not be possible without the support and encouragement of my professors. Professor Thomas M. Crea, PhD has mentored me since 2011. I have long admired Professor Crea's work as a scholar and social worker, and his mentorship has shaped my doctoral training and helped me identify and move beyond my academic comfort zone. Beginning in 2011 when I first worked with Professor Crea as a research assistant, I have benefited from countless opportunities to strengthen my skills as a scholar and social worker, and I acknowledge with deep gratitude his mentorship and the time he took to serve as Chair of my dissertation committee.

Professor Scott Easton, PhD served on my dissertation committee and has modeled for me what it means to be a consummate social work scholar. He consistently sets high expectations, and throughout all of my collaborative efforts with Professor Easton, he has sharpened my thinking with constant encouragement and enthusiasm.

Professor Laura O'Dwyer, PhD served on my dissertation committee and helped me strengthen my skills as a research methodologist. From discussing analytic plans to sharing books to reference in my work, Professor O'Dwyer has graciously shared her wisdom and expertise with me that greatly enhanced this dissertation.

Lutheran Immigration and Refugee Service provided access to the data used in this dissertation. I am particularly grateful for Dawnya Underwood and her support with accessing data from Lutheran Immigration and Refugee Service. Dawnya also provided invaluable consultation regarding the programming available for unaccompanied children in the United States.

There are other professors at the Boston College School of Social Work I must acknowledge for their support and encouragement with my work as a social work scholar and educator. Professor Marcie Pitt-Catsoupes, PhD has helped me conceptualize the theories I use in this dissertation. Professor Ruth McRoy, PhD, has supported my writing about vulnerable children and youth. Professor Westy Egmont, D.Min., has generously shared his wisdom about immigrants, refugees, and unaccompanied children. Professor Shanta Pandey, PhD provided invaluable comments and feedback on my initial dissertation proposal that helped create this dissertation. Professor Ce Shen, PhD, helped me develop my skills as a social work researcher and instilled confidence in my skills as a methodologist. Professor Paul Kline, PhD has supported my growth as a social work educator through generously sharing his classroom with me as a co-teacher. Dr. Stephanie Berzin and Dr. Margaret Lombe both provided valued guidance as directors of the doctoral program. Debbie Hogan, MS, provided support throughout my doctoral studies and shared insight as a trusted advisor during the doctoral program.

My fellow doctoral students and colleagues at the Boston College School of Social Work helped expand my thinking and deepen my understanding of social work. I am especially grateful for members of my cohort: Manuel Cano, Antonia Díaz-Valdés Iriarte, Victor Figueroa, and Julie Miller. Kerri Evans co-authored several papers and presentations with me and provided helpful guidance on programs and services for unaccompanied children. Christina Sellers also co-authored education workshops with me and helped me enhance my teaching skills. Drew Reynolds provided invaluable guidance during my early years as a doctoral student, co-authored publications with me, and shared helpful insight on the process of professional development in higher education.

In addition to my professors and colleagues at Boston College, I acknowledge personal mentors who have guided my learning and supported my growth as a student, social worker, and person. Dr. Dave Landers, PhD, was my professor for three classes at Saint Michael's College. His work as an instructor exemplified the power of education and inspired me to pursue a career in higher education. I continue to seek Dr. Landers's counsel, and am grateful for his wisdom and friendship. Dr. Al Shinkel, EdD, was my high school guidance counselor, and remains a close friend and advisor. Dr. Shinkel taught me the power of accompaniment, listening, and being present with and for others. Bob Kautz has known me since I was born, and has been a continued source of guidance, love, and encouragement. He has graciously shared his wisdom about leadership, politics, and society that continue to shape my thinking. This dissertation is possible because of the many years of patient guidance and support these three men have shared with me.

My family has been a source of love and encouragement throughout my doctoral training. I am grateful for my sister, Meghan, her husband, Ben, and their children Genevieve, Corbin, and Colette for bringing joyful respites from reading and writing during the dissertation process.

My in-laws, Kathy and Earl, have welcomed me to their island home for peaceful retreats that were a welcome calm during the dissertation process. I am thankful for their support and encouragement during my time as a doctoral student, and am particularly grateful for my discussions with Kathy into the early morning hours that sharpened my thinking and introduced me to new ideas.

My wife, Caitlin, has accompanied me throughout my studies as a doctoral student. This dissertation was possible because of her unending love and support. Her ideas, her perspective, and her uplifting spirit are my greatest joy.

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Spring 2019

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Chapter I: Introduction

In Fiscal Year (FY) 2017, 41,435 unaccompanied alien children¹ were apprehended at the Southwest Border of the United States (US) (U.S. Customs and Border Protection, 2017).

Although this is a dramatic increase in the number of unaccompanied children apprehended at the US border, from 24,403 apprehensions in 2012, it is a decrease of 31%, from 59,692 apprehensions, in 2016 (U.S. Customs and Border Protection, 2016). Apprehension refers to the moment an unaccompanied child comes into contact and subsequent custody of a U.S. Border Patrol agent or other U.S. official (Kandel, 2017). The majority of unaccompanied children arriving to the United States between 2012 and 2017 have migrated from the Central American countries of El Salvador, Guatemala, and Honduras (hereafter referred to as the Northern Triangle). In fact, in 2017, 27% of unaccompanied children arrived from El Salvador, 45% from Guatemala, and 23% from Honduras, with only 5% migrating from all other countries (Office of Refugee Resettlement [ORR], 2018a). A unique characteristic of unaccompanied children is the high level of exposure to organized gang violence experienced prior to migrating to the US and motivation to seek economic and education opportunities in the US (United Nations High Commissioner for Refugees [UNHCR], 2014).

¹ Unaccompanied Alien Children is the official term used by the United States government to define children attempting to illegally enter the United States who are apprehended by U.S. Customs and Border Patrol agents and who are without parents or legal guardians at their time of apprehension (Kandel, 2017). However, to align with the National Association of Social Workers (NASW) Code of Ethics core value of respecting the dignity and worth of individuals, unaccompanied alien children will be referred to in this dissertation as unaccompanied children (UC) to recognize their humanity and respect the dignity of their lived experiences. Furthermore, the term children is used intentionally in an effort to highlight the inherent vulnerability of this population and to mitigate any efforts to conflate this population with other groups of immigrants.

The phenomenon of unaccompanied children is not new, nor is it specific to the US (Bronstein, Montgomery, & Ott, 2013; Heptinstall, Sethna, & Taylor, 2004; Ní Raghallaigh & Gilligan, 2010). Research has explored the integration of unaccompanied children in resettled countries, mostly in the context of Europe (Wallin & Ahlström, 2005). In addition, different aspects of integration, including the health and mental health of unaccompanied children, have been studied at length in Europe (Bronstein et al., 2013; Jensen, Fjermestad, Granly, & Wilhelmsen, 2015), including the prevalence of traumatic events experienced by unaccompanied children (Vervliet, Lammertyn, Broekaert, & Derluyn, 2014). However, much less is known about factors associated with integration for unaccompanied children in the US.

Integration is a key feature of immigration that occurs in the wake of migration and resettlement in new communities. Integration is a dynamic process, affecting both immigrants and native-born citizens. The National Academies of Sciences, Engineering, and Medicine (NASEM, 2015) define the concept of integration as “the changes that both immigrants and their descendants – and the society they have joined – undergo in response to migration”. Changes that occur during the process of integration pertain to economic and sociocultural domains of society including employment, education, family structure, religious practices, language, and participation in civic activities. However, the process of integration takes time, and occurs not only for first generation immigrants, but also in subsequent generations of immigrants born in the US.

For immigrant populations in the US, two key features of successful integration are mental health and employment (NASEM, 2015). However, missing from this area of research is a focus on the integration of unaccompanied immigrant children. Given the high numbers of these children entering the US (ORR, 2018a), and the inherent vulnerabilities this population is

exposed to (UNHCR, 2014; UNICEF, 2016), this research is timely and important for understanding the strengths and needs of unaccompanied children in the US. A broad review of literature on immigrant integration will explain this dynamic process that immigrants and US citizens experience.

Unaccompanied Children from Central America Living in the United States

Unaccompanied children have migrated to the United States in increasing numbers since 2011. In 2012, the Office of Refugee Resettlement (ORR) received referrals for 13,625 unaccompanied children. This number increased dramatically to 59,692 apprehensions in 2016 (U.S. Customs and Border Protection, 2016). The majority of unaccompanied children served by ORR in FY2017 were male (67%), and were between 15 and 16 years old (37%) (ORR, 2018a). Seventeen percent of unaccompanied children served by ORR in FY2017 were between ages 0 and 12, 13% were between 13 and 14 years old, and 32% were 17 years old (ORR, 2018a). In FY2017, the majority of unaccompanied children served by ORR migrated from Guatemala (45%), El Salvador (27%), and Honduras (23%). Most unaccompanied children served by ORR since FY2012 have migrated from these three countries in Central America (ORR, 2018a). Unaccompanied child arrivals by country of origin are further depicted in Table 1.

Table 1. Unaccompanied Children Arrivals by Country of Origin

	El Salvador	Guatemala	Honduras	Mexico	Other Countries
2012	27%	34%	27%	8%	4%
2013	26%	37%	30%	3%	5%
2014	29%	32%	34%	<2%	<3%
2015	29%	45%	17%	6%	3%
2016	34%	40%	21%	3%	2%
2017	34%	45%	23%	<3%	3%
2018	12%	54%	26%	3%	<5%

Unaccompanied children apprehended by U.S. Customs and Border Patrol are initially processed by border patrol agents and then transition to the ORR for further services and support, including placement with a sponsor or reunification with a family member. ORR was created in 1980, after the passing of the 1980 Refugee Act (ORR, no date). ORR seeks to provide “new populations with the opportunity to achieve their full potential in the United States. Our programs provide people in need with critical resources to assist them in becoming integrated members of American society” (ORR, 2017b, para. 1).

ORR is organized into five divisions including refugee assistance, refugee health, resettlement services, children’s services, and the office of the director. ORR seeks to “assist refugees with accessing mainstream opportunities and resources” (ORR, 2017b, para. 7). ORR supports refugees with an array of services including placement services, case management, facilitating health and mental health services, providing outreach support, and using data to

inform decision making (ORR, 2017b). In addition to the broad range of services provided to refugees in the US, ORR also provides services specific to unaccompanied children.

Since 1980, ORR has provided services for more than 13,000 minors, and in 2015 was responsible for approximately 1,300 unaccompanied children in care (ORR, 2018b).

Unaccompanied children in the US are typically placed with licensed foster care providers.

However, ORR also collaborates with residential treatment centers, group homes, and intensive therapeutic foster care providers to ensure the full range of unaccompanied children's needs are met (ORR, 2018b).

Out of all unaccompanied children apprehended at the US border, only a small percentage receive services from ORR's Unaccompanied Refugee Minor (URM) program, because many are reunified with sponsors in the community. For example, in 2018 there were approximately 1,300 unaccompanied children served by the URM program (ORR, 2018b), although 49,100 unaccompanied children were referred to ORR for services in FY2018 (ORR, 2018a). The URM program collaborates with a network of direct service providers throughout the US and "helps unaccompanied refugee minors develop appropriate skills to enter adulthood and to achieve social self-sufficiency" (ORR, 2018b, para. 1). The URM program was established in the 1980s after the passage of the US Refugee Act of 1980 to support the needs of unaccompanied children and youth from Southeast Asia. The URM program facilitates placements for unaccompanied children, including reunification with family or placement with foster caregivers (ORR, 2018b). In addition to supporting placement efforts, a variety of other services are provided including English language training, health and mental health services, career counseling, and support with social integration. The URM program collaborates with two

primary national agencies to facilitate these services: Lutheran Immigration and Refugee Service (LIRS) and the United States Conference of Catholic Bishops (USCCB) (ORR, 2018b).

Immigrant Integration in the United States

Immigration has been a core feature of the United States (US) since its founding. As immigrants from foreign nations enter the US, they must navigate a variety of new norms and expectations in order to adjust to new communities. Immigrant integration is an iterative process that can be used to explain a host of gains many immigrants achieve in US society, including education, employment earnings, poverty rates, residential integration, language, and legal status.

Education. Research indicates that immigrants arriving at different times in US history experience strong progress in educational attainment across generations for both males and females (NASEM, 2015). There are important characteristics about educational attainment that recently arrived immigrants experience in the US. First, compared to prior generations, immigrants in recent years have migrated to the US with more skills. The National Academies of Sciences, Engineering, and Medicine (2015) reported that more than twenty-five percent of immigrants arriving to the US come with a college education or more, and make notable contributions to science and technology industries in the US. However, certain immigrant groups arrive to the US with particularly low levels of education. Immigrants from Mexico and Central America arrive to the US with an average of less than 10 years of education, and children of these immigrant populations struggle to meet the same education levels as native-born US children. Along with education, employment and earnings are an important facet of immigrant integration in the US (Ager & Strang, 2008).

Employment. First generation immigrant men generally have higher rates of employment, compared to second and higher generation immigrants living in the US (NASEM,

2015). Employment is a particularly important aspect of integration for immigrants with low levels of education. For example, immigrants with the lowest levels of education are more likely to be employed than native-born citizens with similar levels of education. Female immigrants to the US have lower rates of employment, compared to native-born US women with similar levels of education. Immigrant earnings increase the longer they reside in the US, relative to native-born citizens. However, these improvements in earnings differ based on race and ethnicity. For example, improvement in earnings is slower for Mexican immigrants, compared to other immigrants in the US. Similarly, for Asian immigrants, earnings appear to be comparable to native-born citizens, however this finding fades when controlling for education levels (NASEM, 2015).

Refugees are a particular type of immigrant who arrive to a resettlement country with legal status after fleeing their country of origin due to threats of violence or persecution, and their fear of persecution is due to due issues of race, religion, nationality, political opinion, or membership of a particular social group (United Nations High Commissioner for Refugees [UNHCR], 2018). In a study examining key domains that comprise a conceptual framework of integration for refugees Ager and Strang (2008) explain that while refugees are typically more educated compared to other immigrant groups, one challenge often experienced during the process of seeking employment is employers not recognizing previous work experience or training that refugees bring to employment settings. Further complicating the process of securing employment is employers' request of prior employment documentation, which refugees often are unable to provide, leading to higher likelihood of underemployment based on skill level and education background (Ager & Strang, 2008). In addition to employment and earnings, changes in poverty levels are an important indicator of immigrant integration.

Poverty rates. In 2013, the poverty rate for immigrants in the US was 18.4%, compared to 13.4% for native-born citizens. Although research indicates immigrants are more likely to experience poverty, compared to native-born citizens, poverty rates generally decline for immigrants over each successive generation. Specifically, data examined in 2013 indicate that poverty rates declined from 18.4% for first generation immigrants to 13.6% for second-generation immigrations, and a further decline to 11.5% for third generation immigrants (NASEM, 2015). However, a limitation of this data is that it was collected in a cross-sectional manner, thus limiting longitudinal analyses to examine changes over time.

In addition, according to The National Academies of Sciences, Engineering, and Medicine (2015), these declines in poverty rates among immigrant populations differ substantially among racial and ethnic groups. For example, second generation immigrants who identify as Black experience a rise in poverty in the second generation, and declines in poverty rates for immigrants who identify as Asian stall between the second and third generation. Among all immigrant groups, the Latinx population exhibits the highest rates of poverty upon entry, but also experiences substantial progress between first and second generations (NASEM, 2015).

Poverty is also a barrier to refugees and their integration into communities during their transition from asylum-seeker to refugee with increased rights. Asylum seekers are individuals who flee their country of origin and arrive at resettlement country requesting asylum, which includes the legal recognition of refugee status. Asylum seekers must demonstrate well founded fear of persecution or violence (UNHCR, 2018). Strang, Baillet, and Mignard (2018) studied the experience of transitioning from asylum-seeker status to refugee status in a mixed-methods study based in Scotland. This study examined data from 1,885 along with focus groups with refugees and service providers. The results of the study indicate poverty is a substantial barrier to

integration for refugees who obtain legal status experience difficulty with navigating economic opportunities in resettlement communities (Strang et al., 2018). Along with poverty, residential integration is an important component of immigrant integration in the US.

Residential integration. Although immigrants typically reside in highly segregated communities upon entry to the US, research indicates immigrants across subsequent generations after arrival typically reside in less segregated neighborhoods and more diverse settings at multiple levels including regions, cities, communities, and neighborhoods (NASEM, 2015). This dynamic of less segregation experienced across generations can be explained in part by differences in earnings and occupations between immigrants and native-born citizens. In addition, research indicates length of time in the US is an important indicator of residential segregation, with newly arrived immigrants being more likely to live in highly segregated settings compared to immigrants who have lived in the US for 10-20 years. Along with earnings, occupation, and length of stay in the US, race is an important indicator of residential segregation. Research indicates Asian immigrants are the least segregated in the US, followed by Latinx populations, and then Black immigrants, who are the most segregated from native-born citizens. Language is also an important characteristic of integration to consider (Ager & Strang, 2008; Hebbani, Colic-Peisker, & MacKinnon, 2018).

Language diversity. As the number of immigrants in the US has increased, so too has the diversity of languages used at home and in communities. Research indicates 85% of immigrants speak a language other than English, and 62% of all immigrants speak Spanish at home (NASEM, 2015). English language proficiency is an important indicator of integration, and research indicates approximately half of immigrants in the US (50%) report speaking English “very well” or “well”. However, geographic differences have been identified, with

immigrants from Latin America or the Caribbean reporting the lowest levels of English language proficiency. Furthermore, language integration occurs across generations, with immigrants speaking increasingly higher percentages of English until only English is spoken typically by the third generation. Barriers to language integration include poverty, residential segregation, low-skill employment, and living in the US without legal status (NASEM, 2015).

Research exploring the social interactions between newly arrived refugees and their neighbors highlights the central role language plays in promoting positive interpersonal interactions and facilitating integration for newly resettled refugees. Hebbani and colleagues (2018) conducted in-depth interviews with 47 refugees who were newly resettled in Queensland, Australia. The interview data indicate that language barriers were the main impediment that prevented the accumulation of social capital, or interpersonal connections that facilitate a sense of belonging, between newly arrived refugees and their neighbors. In addition to language diversity, legal status is also a key feature of integration for immigrants in the US, and unaccompanied children particularly.

Legal status. Research indicates legal status is associated with residential segregation, with undocumented immigrants living in more segregated living settings, compared to native-born citizens (NASEM, 2015). The finding of legal status is particularly germane to experiences of unaccompanied children, who are typically resettled in the US without permanent legal status. Recent research identifies the importance of legal status as essential for integration (Rosenblum, 2015).

The National Academies of Sciences, Engineering, and Medicine (2015) identifies four main categories of legal status as it relates to immigrants in the US: permanent, temporary, discretionary, and undocumented. The strongest legal status for immigrants in the US is

permanent status, in terms of the benefits it allows immigrants to access and the degree to which they can engage and participate in civic society. Permanent status “allows labor mobility, confers significant constitutional rights and access to some public benefits, and can lead to naturalization provided that the LPR (legal permanent resident) meets a set of additional requirements” (NASEM, 2015, p. 94). Temporary legal status “includes a variety of employment-based and humanitarian-based admissions that confer lawful presence for limited periods of time, which are subject to review by Congress” (NASEM, 2015, p. 94). Discretionary statuses are more precarious in their level of permanency and protection for immigrants, and “grant temporary lawful status via executive discretion and as such can be terminated at any time” (NASEM, 2015, p. 94). Finally, undocumented status is the most precarious of legal statuses and “offers no formal security at all, provides only some civil and labor rights, and poses a significant barrier for immigrant integration” (NASEM, 2015, p. 95).

Unaccompanied children in the US are typically placed in removal proceedings in accordance with the Immigration and Nationality Acts Section 240, referred to as “240 removal proceedings” (Byrne & Miller, 2012). Unaccompanied children pursue a variety of legal relief upon being placed in removal proceedings. These include asylum, special immigrant juvenile status (SIJS), U-visas for victims of crime, T-visas for victims of human trafficking, and petitions for family-based legal permanent residence.

Unaccompanied children who pursue asylum can petition either “defensively” or “affirmatively”. The primary difference between defensive and affirmative asylum claims is who is responsible for deciding the case brought by an unaccompanied child. Defensive asylum claims are heard from immigration judges, and affirmative asylum claims are filed with the US Citizen and Immigration Services (USCIS) Asylum Office (Byrne & Miller, 2012). Beginning in

2008, the amended version of the Trafficking Victims Protection and Reauthorization Act (TVPRA) shifted the initial hearings for asylum cases to the USCIS asylum office. Immigration judges only hear asylum cases brought by unaccompanied children if the USCIS asylum office denies the claim (Byrne & Miller, 2012).

Special Immigrant Juvenile Status (SIJS) is a form of immigration relief from deportation that is reserved for unaccompanied or undocumented children who are the victim of abuse, neglect, or other form of child maltreatment that endangers their life. Pursuing SIJS occurs in two steps. First, unaccompanied children must be deemed by a state court order to be dependent on the court due to abuse or neglect, and that returning to their country of origin is not in the child's best interests. Importantly, the process of receiving a court order for an unaccompanied child to be deemed dependent on the court is different in every state, complicating the process of receiving SIJS for unaccompanied children due to the need for specialized legal support. Once a court deems an unaccompanied child dependent on the court, the second step is to petition the USCIS for a simultaneous granting of SIJS and adjustment of status to legal permanent residency (Byrne & Miller, 2012).

The burden of receiving a U-Visa is such that an unaccompanied child must have evidence that they have been the victim of substance, mental, or physical abuse resulting from being the victim of criminal activity. This must include evidence provided by a law enforcement agency that the unaccompanied child supported law enforcement efforts to investigating the crime. T-Visa's are reserved for unaccompanied children who have been victims of human trafficking. Both U-Visas and T-Visas have a path to legal permanent residency (Byrne & Miller, 2012).

Along with a complex immigration system, evidence also suggests unaccompanied children experience suboptimal outcomes while pursuing adjustment of their legal status. Data specifically highlights the importance of legal counsel for unaccompanied children navigating the US immigration system. Almost half (47%) of unaccompanied children who are represented by an attorney during immigration court proceedings are granted a stay of deportation, while more than a quarter (28%) receive deportation orders. When unaccompanied children are not represented by an attorney in immigration court, more than 90% receive deportation orders, and 10% receive a stay of deportation (Transactional Records Access Clearinghouse [TRAC], 2014).

In 2017 there were 88,069 cases waiting to be adjudicated in immigration courts in the US. Along with the growing backlog of immigration cases for unaccompanied children, increasing percentages of unaccompanied children are without legal counsel. In 2015, 29% of unaccompanied children pursuing legal relief were without legal representation. This percentage of unaccompanied children without legal relief grew to 40% in 2016, and in 2017 76% of all unaccompanied children pursuing legal relief were without legal counsel (TRAC, 2017).

Unaccompanied Immigrant Children and Contexts of Integration

Much of the research on the integration of unaccompanied children in resettled communities has been completed in the context of Europe, including Germany (Anderson, 2001), Norway (Jakobsen, Meyer Demott, & Wentzel-Larsen, 2017), the United Kingdom and Denmark (Thommessen, Corcoran, & Todd, 2017), and Ireland (Sirriyeh & Ní Raghallaigh, 2018). Research in Germany used in-depth interviews to gather qualitative data from refugee children from various countries including Eritrea and Afghanistan that examined language development, social networks and school connectedness, neighborhood integration, and how mental health issues including trauma are managed. Anderson (2001) found that unaccompanied

children resettled in Germany experience pressure to share the correct information that will lead to their asylum claim being accepted by German immigration authorities. This pressure is further associated with feelings of guilt, creating barriers to establishing trusting relationships with others and threatening their full integration into the community (Anderson, 2001).

Research on the integration of unaccompanied children extends to other contexts in Europe, including Ireland. In a mixed-methods study exploring the transition to adulthood experienced by unaccompanied children living in Ireland and the United Kingdom, Sirriyeh and Ní Raghallaigh (2018) collected quantitative survey data from 133 foster care providers and completed qualitative interviews with 23 foster care providers and 21 unaccompanied children in the United Kingdom. In Ireland, the authors collected qualitative data from 21 unaccompanied children, 16 foster care providers, and 21 stakeholders, including social workers and members of advocacy organizations (Sirriyeh & Ní Raghallaigh, 2018).

This research describes the experience of unaccompanied children transitioning to adulthood and integrating into resettlement communities. One major barrier to integration experienced during the transition to adulthood in the context of Ireland is legal status. Because unaccompanied children await decisions on their asylum claims, they do not have access to opportunities that facilitate not only the transition to adulthood, but also integration into communities through educational and employment opportunities. Similar to other research on unaccompanied children integrating into resettlement communities (Thommessen et al., 2017), this study also identified social support as a critical factor for unaccompanied children transitioning to adulthood and integrating into resettlement communities. Social support in this context is defined as ‘affirmational guidance’, or the importance of being recognized by others in a way that reinforces an unaccompanied child’s sense of self. The role of social support is further

described: “The importance of continuity of care/love cannot be overestimated, especially when young people are moving to difficult post-18 conditions” (Sirriyeh & Ní Raghallaigh, 2018, p. 95). This research corresponds with research in the context of the US that identifies education and employment as important components of immigrant integration (NASEM, 2015), along with research indicating the complex legal pathways unaccompanied children must navigate in the US (Byrne & Miller, 2012).

In similar research using qualitative methods, Thommesson and colleagues (2017) used personal construct assessments to examine the resettlement experiences of six unaccompanied youth who migrated to the United Kingdom from Sub-Saharan Africa. Personal construct assessments are based on personal construct theory (Kelly, 1991), which posits that individuals formulate internal constructs of their environment in order to understand their living setting and foresee future events. Data were collected in three phases. First, participants completed a personal construct assessment that asked participants to identify important people in their life. Phase two of data collection included four group therapy sessions that focused on providing an environment for participants to discuss challenges they experienced during their resettlement process and the resources they used to cope with the resettlement experience. Phase three of the data collection process was a final personal construct assessment, identical to phase one of the data collection process (Thommesson et al., 2017).

Using thematic analysis, the authors found that social support and positive social relationships were critical to the personal constructs of the unaccompanied children (Thommesson et al., 2017). Post-migration, establishing meaningful relationships and forming structured social support, all contributed to feelings of hope for the future and wellbeing for unaccompanied children. Similar to other research (e.g., Jakobsen et al., 2014) the authors

suggested that such relationships and social support facilitate integration for unaccompanied children in resettlement settings (Thommesson, 2018). The authors further described specific ways communities can foster the integration of unaccompanied children: “Initiatives that seek to prevent discrimination, stigmatisation and isolation, and that aim to facilitate social relationships to develop, should be supported, for instance in professional care systems and school contexts” (Thommessen et al., 2017, p. 299).

In addition to the European context, there is a limited but growing body of research in the integration experiences of unaccompanied children in the US. Early research focused mainly on youth from Sudan (Geltman et al., 2005; Goodman, 2004; Luster, Qin, Bates, Johnson, & Rana, 2008). Goodman’s (2004) research explored coping strategies used by Sudanese unaccompanied children resettled in the US. In addition to a sense of communality, suppression and distraction, constructing meaning from events, and the process of emerging from hopelessness to hope comprised the four main coping strategies used by Sudanese unaccompanied children living in the US. Research has also identified the prevalence of PTSD experienced by Sudanese unaccompanied children resettled in the US. In a descriptive study, Geltman and colleagues (2005) discovered that 20 percent of unaccompanied children from Sudan met clinical criteria for a diagnosis of PTSD, and that social isolation and a history of personal injury were two factors significantly associated with PTSD.

This line of research, in addition to providing important knowledge on mental health outcomes, also describes different aspects of integration experienced by Sudanese unaccompanied children resettled in the US. Qualitative research on coping mechanisms used by unaccompanied Sudanese children resettled in the US reveals a strong sense of communal identity with an organized group such as a family or tribe supporting a “cultural ideal”

(Goodman, 2004, p. 1192). The sense of communal identity that establishes a cultural ideal may promote healing for unaccompanied children coping with trauma exposure.

Research on Sudanese unaccompanied children also highlights how adjusting to new cultural expectations can also facilitate healing (Geltman et al., 2005). Cultural orientation refers to learning social norms in order to navigate cultural differences encountered in resettlement settings. Geltman and colleagues (2005) suggest that an extended cultural orientation for newly resettled unaccompanied children, beyond learning practical matters of how to access food, transportation, and education systems, is an important component in mediating mental health issues and may facilitate integration for unaccompanied children with histories of trauma exposure. By contrast, however, not much research has focused on integration of unaccompanied children in the US.

Challenges to Integration in the United States of Unaccompanied Children

The context of unaccompanied children who migrate to the US is unique given the myriad reasons they migrate to the US (UNHCR, 2014) and the various traumatic stressors they are exposed to during their migration journey (UNICEF, 2016), making their immigration experience distinct from many other immigrant groups in the US.

A major gap in existing research is how such cultural factors facilitate integration for unaccompanied children in the US from other countries, including the Northern Triangle. The main difference between unaccompanied children from Sudan and unaccompanied children from Central America is the nature of their immigration status in the US. While unaccompanied children from Sudan were resettled as legally recognized refugees prior to resettling in the US, unaccompanied children from Central America arrive to the US as asylum-seeking youth, often with no legal status upon entering the US (Goodman, 2004). Silove, Steel, and Mollica (2001)

highlight human rights violations asylum seekers face, including the risk of detention upon arriving at a migratory destination. The practice of detention can expose individuals already at risk of suboptimal mental health outcomes to further mental distress, possible re-traumatization, and barriers to integration in resettlement communities. In addition, asylum applications can take years to process, during which time asylum seeking individuals live with prolonged fear of deportation to the country they escaped from due to fear of threats to their life (Silove et al., 2001).

Unaccompanied children face a host of challenges as they begin the process of integration in resettlement communities. Individual-level challenges include acculturative stress related to meeting new cultural norms and expectations, difficulty with school engagement due to learning differences and language capabilities, complex legal cases that expose unaccompanied children to deportability, discrimination due to racial and ethnic differences, and mental health challenges (Berger Cardoso et al., 2017). In addition to individual-level challenges, unaccompanied children must navigate barriers to integration on an ecological level. These challenges include lack of immigration reform that addresses the unique needs of immigrant children, gaps in insurance coverage, and limited mental health services, complex family reunification circumstances (e.g., mixed-status families), and gaps in post-release services (Berger Cardoso et al., 2017).

The gap in post-release services was the subject of a qualitative study that examined how post release services help unaccompanied children adapt to new environments post-migration (Roth & Grace, 2015). As stipulated in the Trafficking Victims Protection Reauthorization Act (TVPRA), unaccompanied children in the custody of ORR receive a risk assessment prior to release to a sponsor to determine if the accompanied child has any notable risks or needs to be

addressed. If the risk assessment identifies areas of need or high risk, the unaccompanied child and their sponsor receive a home study. Unaccompanied children who receive a home study are eligible for six months of post release services. Importantly, language in the TVPRA indicates unaccompanied children who do not receive a home study but exhibit mental health needs and could benefit from ongoing support from a community-based agency, are also eligible for post-release services (Roth & Grace, 2015).

Changes to policy that limits the amount of time unaccompanied children can be held in detention have resulted in longer periods of unaccompanied children being held in detention after apprehension at the US border. These proposed policy changes were drafted by the Department of Homeland Security in September 2018 and propose that unaccompanied children are:

held in the least restrictive setting appropriate to the minor or UAC's age and special needs, provided that such setting is consistent with the need to protect the minor or UAC's well-being and that of others, as well as with any other laws, regulations, or legal requirements. (Department of Homeland Security, 2018, p. 44526)

This policy change is a departure from previous practices that directed DHS and HHS to facilitate the reunification of unaccompanied children with family members or sponsors in the community. The detention of unaccompanied children is evidence of policy not meeting the unique needs of unaccompanied children (Crea et al., 2018) as well as immigration law conflicting with policies aligned with child welfare practices (Hasson III, Cea, McRoy, Lê, 2018).

Post release services are an important component to facilitating integration for unaccompanied children. As more unaccompanied children resettle in communities in the US that are new destinations for immigrants, including suburbs and small towns in the Midwestern

and Southeastern United States, post release services provide support by connecting them with community-based resources that may be unfamiliar or underutilized (Roth & Grace, 2015). Such supports can enhance integration for unaccompanied children by increasing English language learning opportunities and improving access with social service providers that are not readily accessible by public transportation. Post release services also provide referrals for legal services and mental health services. Given the complex nature of legal cases unaccompanied children encounter after resettling in the US (Berger Cardoso et al., 2017) and the importance of legal counsel for pursuing stays of deportation (TRAC, 2014), referrals for legal services are a critical component of integration for unaccompanied children (Roth & Grace, 2015).

Recent research has focused on the integration of unaccompanied children in specific US contexts. In a cross-sectional qualitative study, Roschelle, Greaney, Allan, and Porras (2018) examined different responses to an influx of unaccompanied children in the Hudson River Valley in New York. Drawing on data from 25 service providers, immigration attorneys, activists, and teachers in the Hudson River Valley, the study highlighted how individuals identified the influx of unaccompanied children, how service providers responded to the influx, and the contexts of integration for unaccompanied children (Roschelle et al., 2018). Among the findings of the study, results indicate there are various barriers to integration for unaccompanied children. For example, immigration attorneys reported applying for different types of visas to avoid deportation, such as Special Immigrant Juvenile Status or T or U-visas, is particularly challenging. Results also indicate enrolling unaccompanied children in school is challenging due to language barriers and providing accurate education assessments to ensure students are enrolled in appropriate grades, given their education background. This is especially notable given the growing body of research that indicates there are significant country differences in education

outcomes for unaccompanied children migrating to the US from the Northern Triangle of Central America (Crea et al., 2018b).

Push and Pull Factors for Migration

There are varied reasons that contribute to unaccompanied children migrating to the United States from the Northern Triangle. Push factors include high levels of violence in their home countries. Each of the Northern Triangle countries have among the highest murder rates in the world, with El Salvador having the highest murder rate in 2015 (United Nations Children's Fund [UNICEF], 2016). Additional push factors include lack of structured education opportunities and high levels of poverty.

Motives for migrating to the US are similar for unaccompanied children from the Northern Triangle, however minor differences exist between Northern Triangle countries. Sixty-six percent of unaccompanied children from El Salvador cite exposure to violence in their country of origin as the primary reason for their migration (UNHCR, 2014). In addition, other push factors include 21% of unaccompanied children from El Salvador who report abuse in the home as the primary drive of their migration, and 7% of unaccompanied children from El Salvador who report poverty as the primary driver of their migration to the US. For unaccompanied children from Guatemala, economic deprivation (29%), abuse in the home (29%), and violence in the community (20%) are the main push factors influencing their migration to the US. For unaccompanied children from Honduras, violence in their community (44%) and abuse in their home (24%) are the primary push factors for migration to the US.

In addition to push factors, certain characteristics about the US are pull factors that appear to encourage unaccompanied child migration to the US. A primary pull factor is family reunification. For example, 83% of unaccompanied children from El Salvador report reunifying

with family in the US is a factor influencing their migration to the US. The rates for unaccompanied youth from Guatemala and Honduras are, respectively, 88% and 80%. In a mixed-methods study examining factors associated with Salvadoran youth migration, Anastario and colleagues (2015) found that family reunification was the most commonly reported reason for migration to the US. The authors explain that households with family members living abroad (mostly migrating to the US), were significantly more likely to report wanting to migrate. For example: “56% of respondents with relatives living abroad intended to migrate whereas only 43% of respondents without relatives living abroad intended to migrate” (Anastario et al., 2015, p. 100).

In addition to family reunification, education opportunity is a pull factor influencing unaccompanied child migration to the US. For example, 88% of unaccompanied children from Guatemala and 80% percent of unaccompanied children from Honduras also report education opportunities in the US as an important factor influencing their migration to the US. After negotiating push and pull factors that influence the decision to migrate to the US, unaccompanied children experience the process of migration to the US, including entering a complex immigration system.

Post-Apprehension Pathways

Upon crossing the US border, unaccompanied children are typically first apprehended by a United States Customs and Border Patrol (CBP) agent. This dissertation focuses on youth apprehended by CBP, however this may not be the entire population of unaccompanied children in the US, as some unaccompanied children enter the US without apprehension by border patrol. Upon initial screening, unaccompanied children are then transferred to the care and custody of ORR within 72 hours (LIRS, 2015). The US Office of Refugee Resettlement is responsible for

the care of unaccompanied children after their initial screening. Officials within ORR then work to place unaccompanied children in the least restrictive environment possible and also provide family tracing services to facilitate the reunification or unification of an unaccompanied child with their caregiver or sponsor in the US (ORR, 2017a).

Shelter setting. There are multiple post-apprehension pathways for unaccompanied children after they are placed in ORR custody. For unaccompanied children who migrate from a contiguous country of origin (i.e. Mexico or Canada), they are processed by ORR and then repatriated to their country of origin within 48 hours, as stipulated in the Trafficking Victims Protection Reauthorization Act (TVPRA). Unaccompanied children who migrate from a non-contiguous country (e.g., Honduras, El Salvador, or Guatemala) are placed in an ORR shelter within 72 hours of their apprehension at the US border. This dissertation focuses on youth from non-contiguous countries, specifically the countries El Salvador, Guatemala, and Honduras.

Unaccompanied children begin receiving an array of assessments upon their placement at an ORR shelter to begin the process of transitioning to a permanent placement. These assessments include an initial intake within 24 hours, a medical assessment within 48 hours, and an educational assessment within 72 hours. Within the first 7 days of arrival at an ORR shelter, unaccompanied children receive a comprehensive UAC (Unaccompanied Alien Child) assessment and initial mental health assessment (LIRS, 2015).

Also within the first 7 days of arrival, ORR officials begin identifying possible sponsors for unaccompanied children to facilitate their transition to the community. This includes sending potential sponsors a Family Reunification Packet (FRP) to complete, and assessing the need for a home study. The FRP contains an array of documents to help determine the appropriateness of placement for unaccompanied children with the potential sponsor. These documents include an

authorization for release of information, a family reunification application, sponsor care agreement, an overview of the legal orientation program for custodians (LOPC), a UAC sexual abuse hotline flyer, instructions for completing fingerprinting, a letter of designation for care of the minor, a sponsor declaration, a warning about fraud, and privacy notices for sponsors and parents and legal guardians (ORR, 2012).

The family reunification process occurs between 7 and 30 days of an unaccompanied child's placement at an ORR shelter. During this time, unaccompanied children are provided a legal orientation program. This includes a "know your rights" (KYR) session by day 14. Between day seven and 30, unaccompanied children meet weekly with a case coordinator and receive weekly education progress reports, unless they are released from the shelter prior to 14 days. If an unaccompanied child is released after 15 days in a shelter, ORR completes a UAC Case Review. If the unaccompanied child is not released, the Case Review is completed by day 30. In this time period Case Managers, Clinicians, or Supervisors document any relevant Significant Incident Reports (SIR) that are pertinent to the unaccompanied child's case (LIRS, 2015).

If the unaccompanied child is in an ORR shelter for 30 days or beyond, then ORR completes a UAC Case Review every 30 days, or as needed if significant events occur. Case Managers and Clinicians complete Ongoing Case Notes to document the unaccompanied child's functioning in the shelter, and any medical needs are updated. Similar to the 7 – 30 day period, Case Managers, Clinicians, and Supervisors document any relevant SIR that are pertinent to the unaccompanied child's case (LIRS, 2015). Significant incident reports are examined more closely in Chapter 3 of this dissertation.

Ongoing services that are provided for unaccompanied children in shelter settings include completing the Sponsor/Family Reunification Assessment and updating the UAC Portal with any relevant information. Depending on state requirements, home visits to any foster placements may be provided by Case Managers. ORR also manages the Treatment Authorization Request process so other external services can be provided (LIRS, 2015).

Release from shelter. When unaccompanied children are released from an ORR shelter setting, the rationale for release is determined if a sponsor is identified or if no sponsor is identified. If a sponsor is identified and there is no risk or minimal risk of the unaccompanied child transitioning to the community, then the unaccompanied child will be released straight to the sponsor. If there are risk factors identified that could impede the unaccompanied child's ability to safely transition to the sponsor's care or if there are concerns that an unaccompanied child is the victim of human trafficking, then the unaccompanied child will be released to the sponsor's care with post-release services (LIRS, 2015).

Post release services are an array of services that secures the safety and well-being of unaccompanied children as they transition to the community and promotes their permanency after placement with a sponsor (USCCB, 2012). These services include risk assessments, treatment planning with unaccompanied children and their sponsors, and helping unaccompanied children access culturally appropriate services in their community. Specific services include home visits, psycho-educational support, support with enrolling in public school settings and securing the appropriate education provisions (e.g., Individual Education Plans), and referrals to legal services. Post release services, together, provide a foundation of support for unaccompanied children and their sponsor that facilitates integration into communities and enhances already existing protective factors for the unaccompanied children (USCCB, 2012).

In some circumstances, unaccompanied children cannot be placed with a sponsor because either (A) a sponsor cannot be identified or (B) a sponsor is identified but a subsequent home study revealed risks too great to warrant the safe placement of an unaccompanied child. If an unaccompanied child cannot be placed with a sponsor for either reason, then separate and unique decisions are made to determine the most appropriate placement setting for the unaccompanied child.

If an unaccompanied child cannot be placed with a sponsor, and no legal relief is available, then the unaccompanied child is subject to removal from the US, voluntary departure to their country of origin, release to a licensed community-based program, or release to the community (LIRS, 2015). If an unaccompanied child cannot be placed with a sponsor, and legal relief is achieved in their shelter placement, then they transition to the Unaccompanied Refugee Minor (URM) Program. If an unaccompanied child cannot be placed with a sponsor, and legal relief is not achieved in a shelter placement, then they transition to the Long Term Federal Foster Care (LTFC) program (LIRS, 2015).

Once in LTFC, unaccompanied children can either (A) achieve legal status, or (B) age out without legal status. If unaccompanied children achieve legal status when they are in LTFC, they then transition to the URM program. If unaccompanied children age out of LTFC without legal status, then they transfer from the custody of ORR to the custody of the Department of Homeland Security (DHS). This pathway presents challenges to unaccompanied children being able to integrate into communities, as their remaining in the community is at the discretion of Immigration and Customs Enforcement (ICE). If unaccompanied children age out of LTFC without legal status, they may be subject to detainment and deportation by ICE. If unaccompanied children decide to remain in the US and pursue permanent legal status, their

placement options are more precarious. They may remain in a foster care setting, seek a placement with an alternate foster family, establish a connection with an independent living program, or reside in an adult homeless shelter (LIRS, 2015).

Migration and Family Separation

One common consequence of transnational migration is family separation. Evidence suggests immigrants in the US who have experienced separation from a parent or caregiver are more likely to exhibit symptoms of depression, compared to immigrants with no history of family separation (Suárez-Orozco, Todorova, & Louie, 2002). Upon reunification with parents, children experience varied social-emotional responses. For example, research suggests male immigrant youth who reunify with their parents report experiencing low levels of family support, low social support, and low academic achievement. However, female immigrant youth report experiencing high levels of family and social support, and exhibit high academic achievement (Lovato-Hermann, 2017; Roth & Grace, 2015).

In some contexts, children remain in their country of origin while parents or caregivers migrate for economic reasons, a situation often associated with psychological distress and other negative outcomes for children. In a literature review, Valtolina and Columbo (2012) examined psychological well-being, family relations, and development issues in children separated from parents who immigrate to another country. Researchers found that when one or both parents emigrate for more than six months, children experienced decreased academic achievement, higher school drop out rates, and more conflict with teachers. In addition to education consequences, separation from parents was associated with mental health problems, including low self-esteem, symptoms of anxiety and depression, suicidal behavior, and substance abuse (Valtolina & Colombo, 2012). The development of psychosocial distress in children who remain

home while parents or caregivers migrate for economic reasons has also been found in the context of China (Zhao, Wang, Li, Zhou, & Hesketh, 2017), and elevated symptoms of anxiety and depression in the context of Romania (Tomşa & Jenaro, 2015).

Family separation for unaccompanied children whose parents immigrate to another country has been studied in contexts outside the US. However, more research in this area in the context of the US is needed to increase the knowledge base on unaccompanied children who resettle in the US and have been exposed to family separation (Roth et al., in press). A close examination of research gaps in the study of unaccompanied children will further contextualize the aims of this dissertation.

Research Gaps

Several studies on unaccompanied children to date are based on samples from Europe including Belgium (Derluyn & Broekart, 2007; Vervliet et al., 2014), and Norway (Jensen, Bjørge Skårdalsmo, & Fjermestad, 2014; Jensen et al., 2015). The studies based in the US have focused primarily on the mental health of unaccompanied refugee minors from Sudan (e.g., Geltman et al., 2005; Goodman, 2004; Luster et al., 2008). A growing body of research on unaccompanied children includes research examining education outcomes (Crea, Hasson III, Evans, Berger Cardoso, & Underwood, 2018), identifying needs and best practices of unaccompanied children from a child welfare perspective (Crea, Lopez, Hasson III, Evans, Palleschi, & Underwood, 2018b), and predictors of placement stability for unaccompanied children in long term foster care (Crea, Lopez, Taylor, & Underwood, 2017a).

However, unaccompanied refugee minors are a distinctly different population from unaccompanied children in that they have legal status to reside in the US, whereas unaccompanied children are undocumented and at risk of detention and deportation, leading to

subsequent risk of anxiety and stress (Crumlish & Bracken, 2011; Silove et al., 2001). In addition, while the prevalence of PTSD has been examined in European contexts (Jensen et al., 2015), little is known about the prevalence of PTSD in samples of unaccompanied children in the US. This study will fill this gap by examining rates of PTSD in a sample of unaccompanied children from the Northern Triangle living in the US.

A second gap in previous research is based on measurement issues. Previous research has used the Child Posttraumatic Stress Symptom Scale (CPSS) to study trauma symptoms in populations of unaccompanied children (Jensen et al., 2015), but the CPSS has not been used with unaccompanied children from the Northern Triangle. This study will address this gap by using factor analysis to examine the extent that trauma symptoms measured by the CPSS accurately reflect the experiences of unaccompanied children from the Northern Triangle.

A third gap in existing research is related to the version of the CPSS used in prior research with unaccompanied children. Jensen and colleagues (2015) used the CPSS that aligns with the Fourth Edition of the DSM. However an updated version of the DSM has been introduced for clinical practice and research (American Psychiatric Association [APA], 2013). The updated fifth edition of the DSM includes new diagnostic criteria for PTSD, including the symptom cluster of alterations in cognitions and mood. This proposed study will address this gap by using the current version of the DSM to examine symptoms of trauma.

Finally, previous research on unaccompanied children has focused on risk factors that are associated with suboptimal health or mental health functioning. This dissertation will include a study that examines factors related to employment outcomes for unaccompanied children exiting the Unaccompanied Refugee Minor Program in the US. A wide body of research indicates stable employment is a protective factor for vulnerable youth, including native-born US youth exiting

the foster care system (Courtney, 2001; Hook & Courtney, 2010, 2011). Although adult refugees in the US identify employment opportunities as a protective factor (Paat & Green, 2017), little is known about how employment acts as a protective factor for unaccompanied children in the US who are near the transition to adulthood.

The need for research on the strengths and needs of unaccompanied children is timely, particularly with the substantial increase in unaccompanied children migrating to the United States in recent years from Central America (ORR, 2018a), and evidence documenting high levels of exposure to trauma for unaccompanied children from the Northern Triangle (UNHCR, 2014). Given the shifting perspectives of immigration shared by US citizens (Pew Research Center, 2018), context specific research (e.g., Hudson River Valley) provides an important lens with which to examine the integration of unaccompanied children. Unlike other immigrant populations that migrate to the US, unaccompanied children encounter a distinct immigration system with varied pathways after their arrival to the US.

Although the literature base on immigrant integration is well established (NASEM, 2015), the area of integration of unaccompanied children in the US is understudied. This area of research has mainly been conducted in the context of Europe (Sirriyeh & Ní Raghallaigh, 2018; Thommessen & Todd, 2018; Thommessen et al., 2017); however, a large gap remains in the context of the US (Berger Cardoso et al., 2017). Research on unaccompanied children from Central America in the US is in a nascent stage. Some research has examined certain domains of an unaccompanied child's life including placement predictors for unaccompanied children in foster care (Crea, Lopez, Taylor, & Underwood, 2017) education outcomes for unaccompanied children in foster care (Crea, Hasson III, Evans, Berger Cardoso, & Underwood, 2018b), and the greatest needs of unaccompanied children in foster care and child welfare best practices for

meeting these needs (Crea et al., 2018c). This dissertation will build on this growing body of research by examining specific characteristics that are associated with integration. Specifically, this dissertation will examine rates of PTSD, factors that are associated with adversity that unaccompanied children experience in long term foster care, and factors associated with employment outcomes for unaccompanied children exiting the Unaccompanied Refugee Minor (URM) Program. This dissertation is guided by the following aims related to each of the three studies:

- **Aim 1 (Study 1).** Examine the rates of PTSD as measured in a sample of unaccompanied children living in the US, and examine the psychometric properties of a standardized trauma measure to assess how well the instrument captures symptoms of PTSD.
- **Aim 2 (Study 2).** Examine what factors are associated with significant incidents experienced in long term foster care in a sample of unaccompanied children resettled in the US.
- **Aim 3 (Study 3).** Examine what factors are associated with employment outcomes in a sample of unaccompanied children in the United States.

Using a cross-sectional research design, Study 1 builds on previous quantitative research of unaccompanied children's mental health (e.g., Derluyn, Mels, & Broekaert, 2009). This study examines the mental health profiles of unaccompanied children receiving Post Release Services (PRS) or Family Reunification Services (FRS) in the US using the Child Posttraumatic Stress Scale for the DSM-5 Self-Report (CPSS-V-SR) (Foa, Asnaani, Zang, Capaldi, & Yeh, 2018). Along with descriptive statistics including country of origin, the study tests the theoretical framework of the CPSS-V-SR using a confirmatory factor analysis to understand how it measures symptoms of trauma exhibited by unaccompanied children. Rates of PTSD are

provided using the best fitting model of CPSS. This study expands previous research on trauma experienced by unaccompanied children (Bronstein, Montgomery, and Ott, 2013) by focusing on the context of the US.

Study 2 examines factors associated with an array of significant incidents unaccompanied children are exposed to in long-term foster care. Specific types of significant incidents include victimization, externalized behavior, and mental health crises. Examining factors associated with significant incidents is an important area of research to expand, given existing research that indicates various domains of significant incidents are associated with immigrant integration. For example, previous research indicates victimization, particularly child neglect, impedes immigrant integration (Grumi, Milani, & Di Blasio, 2017), and exposure to traumatic events in childhood is associated with suboptimal mental health outcomes in later life (Turner & Lloyd, 1995).

Study 3 will identify what factors are associated with employment outcomes for unaccompanied children in the Unaccompanied Refugee Minor (URM) Program. Research indicates employment is an integral component of immigrant integration (NASEM, 2015). This study will build on existing research that indicates vulnerable populations of immigrants, including refugees, identify employment opportunities in the US as a protective factor that enhances integration in resettlement communities (Paat & Green, 2017). In addition, existing research indicates vulnerable US born young adult, for example youth aging out of foster care, experience myriad challenges to securing stable employment (Dworsky & Gitlow, 2017), and earn less income compared to young adults in the general population (Okpych & Courtney, 2014).

The results of this dissertation will help inform the development and enhancement of policies to serve the unique needs of unaccompanied children in the US. For example, deeper

knowledge of how mental health is experienced by unaccompanied children, specifically symptoms of trauma, may encourage refinement of strategies to deliver mental health services for unaccompanied children in a variety of contexts including community-based mental health centers, primary care facilities, and schools. The results will also help inform more effective strategies to identify mental health problems experienced by unaccompanied children and referrals to appropriate services.

Along with developing policies and refining strategies for mental health care service delivery, understanding what factors are associated with employment outcomes for unaccompanied children is important to facilitating integration. Research in the area of employment outcomes for unaccompanied children can be used to develop strengths-based programs that facilitate the transition to employment, which research already indicates is an important component for integration of other immigrant populations (NASEM, 2015). Refining policies and strategies for mental health care delivery in a wide array of settings as well as gaining stable employment can promote the integration of unaccompanied children in communities in the US, enhance health and mental health outcomes, and ensure that human rights are recognized and respected.

Chapter II: Trauma Symptom Profiles in a Sample of Unaccompanied Immigrant Children: Alignment or Misalignment with the DSM-5

Introduction

Posttraumatic stress disorder is one of seven different types of trauma and stressor related disorders defined by the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) (American Psychiatric Association [APA], 2013). Early scholarship defines trauma as a conflict between mind, body, and spirit (Herman, 1992). More contemporary research defines trauma as “exposure to actual or threatened death, serious injury, or sexual violence” (APA, 2013, p. 271). According to the diagnostic criteria of posttraumatic stress disorder (PTSD) as outlined in the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5), exposure to trauma can result in four separate clusters of symptoms: (a) intrusion symptoms including flashbacks and nightmares; (b) avoidance symptoms including increased isolation from distressing stimuli; (c) hyperarousal symptoms including increased irritability or hypervigilance; and (d) alterations in cognition and mood (American Psychiatric Association [APA], 2013). The lifetime prevalence rate of PTSD, defined as the proportion of a population (e.g., US-born adolescents) who exhibited criteria for PTSD at some point during adolescence (NIMH, 2017), is 5.0% for 13-18 year olds born in the US (Merikangas et al., 2010)

A significant gap in research on trauma and unaccompanied children is understanding how symptoms of trauma are exhibited and measured. Because the DSM-5 (APA, 2013) was developed in the context of Western medical models, it is unclear if measurement tools accurately measure symptoms of trauma exhibited by populations from other cultural contexts, including unaccompanied children from El Salvador, Guatemala, or Honduras. The countries El Salvador, Guatemala, and Honduras comprise a region of the world known as the “Northern

Triangle”, and the majority of unaccompanied children arriving to the US since 2012 have arrived from the Northern Triangle (ORR, 2018a). This gap in research may pose a barrier to accurately assessing trauma in populations of unaccompanied children and delivering appropriate mental health services that meet their unique needs, critical supports for their integration in US society. In addition, the increasing population of unaccompanied children in the US (ORR, 2018a) and the trauma unaccompanied children are exposed to before, during, and after their migration to the US (UNHCR, 2014), warrants research to understand how symptoms of trauma are experienced and exhibited by unaccompanied children.

This study seeks to fill this gap in research by examining the rates of PTSD as measured in a sample of unaccompanied children living in the US. In addition, the study will examine the psychometric properties of a standardized trauma measure to assess how well the instrument captures symptoms of trauma.

Literature Review

Unaccompanied Children and Trauma Exposure

Health and mental health outcomes broadly, and trauma specifically, have been studied with refugee and migrant populations around the world, including Norway (Jensen et al., 2015; Oppedal & Idsoe, 2015), the United Kingdom (Bronstein, Montgomery, & Ott, 2013), Belgium (Vervliet et al., 2014), and the Netherlands (Pinto Wiese & Burhorst, 2007). In Norway, Jensen and colleagues (2015) found that of a sample of 93 unaccompanied children, the mean number of stressful life events reported was 5.5, with the most common stressful life event being the death of a close person (68%), followed by witnessing violence (63%) and war (62%). Over half of the sample (54%) scored above the cutoff for a diagnosis of PTSD according to the Child Post Traumatic Stress Disorder Symptom Scale. In addition, a substantial portion of the sample also

scored above the cutoff for anxiety symptoms (30%), depressive symptoms (20%), and externalizing behavior symptoms (7%), using the Hopkins Symptom Checklist (Jensen et al., 2015).

In a similar vein, Bronstein and colleagues (2013) examined the prevalence of mental health problems in a sample of 222 Afghan asylum-seeking children living in the United Kingdom (UK). Using the Hopkins Symptom Checklist (HSCL) and the Stressful Life Events Scale (SLE), results indicate the mean number of stressful life events experienced by unaccompanied children was 6.6 ($SD=2.7$). A substantial percentage of unaccompanied children scored high or very high on the emotional and behavioral problems scale (31.4%), and 24.4% reported high or very high internalizing problems. Specifically, 34.6% of the sample reported high or very high anxiety symptoms and 23.4% of the sample reported high or very high depression symptoms. The authors also found a significant association between the number of stressful life events an unaccompanied child experienced prior to migrating to the UK and the total score on the HSCL and associated subscales for anxiety and depression (Bronstein et al., 2013).

Vervliet and colleagues (2014) continued this line of research in the context of Belgium, where they studied mental health symptoms in a sample of 103 unaccompanied children from their arrival until 18 months post-arrival. This research examined traumatic experiences, mental health symptoms, and daily stressors at arrival to Belgium, at six months and 18 months after arrival. The study used the Reactions of Adolescents to Traumatic Stress questionnaire (RATS) to measure symptoms of trauma and the Daily Stressor Scale for Young Refugees (DSSYR) to measure exposure to daily stressors. Among the findings, the results indicate experiences of daily stressors, particularly those related to discrimination, increase over time. Specifically, 11.1% of

the sample experienced the feeling of being threatened differently compared to others at arrival. This daily stressor increased to 24.1% of the sample at six months, and 42.6% at 18 months. Similarly, 11.1% of the sample reported hearing people say bad things about them at arrival, and this daily stressor increased to 18.5% of the sample at six months and 20.4% at 18 months. Finally, 16.7% of the sample reported feeling that others have prejudices about them based on country or culture, and this daily stressor increased to 31.5% of the sample at six months and 37% at 18 months (Vervliet et al., 2014).

In addition, the more daily stressors an unaccompanied child experienced, the higher the symptom score on the RATS. The authors found the percentage of unaccompanied children scoring above the clinical threshold for severe trauma increased from 48% at arrival to 55.1% at six months. The percentage of unaccompanied children scoring above the clinical threshold for severe trauma decreased slightly at 18 months to 53.2%. Finally, this research identified differences in trauma symptoms by gender, as girls reported significantly more intrusion symptoms compared to boys (Vervliet et al., 2014).

The prevalence of mental health problems also differs for different types of immigrant youth. In a study comparing the mental health of unaccompanied children ($n=50$) and asylum-seeking youth ($n=70$) accompanied by caregivers who were referred to a psychiatric clinic in the Netherlands, Pinto Wiese and Burhorst (2007) found significant differences between the two groups in the number of traumatic stressors experienced and the mental health symptoms reported. Unaccompanied children experienced significantly higher rates of separation from family and relatives, physical violence, sexual abuse, threats of life, witnessing the killing of another human being, experience of torture, maltreatment, and imprisonment, compared to asylum-seeking youth accompanied by caregivers (Pinto Wiese & Burhorst, 2007).

Additionally, unaccompanied children reported experiencing significantly higher rates of self-regulation difficulties, symptoms of depression, hallucinations or delusions, somatic symptoms, and symptoms of developmental delay. Data were collected from standardized clinical intake forms, which included demographic data, documentation of traumatic events, psychological symptoms, and a clinical diagnosis by a trained mental health practitioner that aligns with criteria in the DSM-IV. Results indicate unaccompanied children exhibited significantly higher rates of diagnoses of depressive disorder, borderline personality disorder, psychotic disorder, relationship disorder, learning disorder, and developmental disorder (Pinto Wiese & Burhorst, 2007). Although research in other contexts show that unaccompanied children exhibit high rates of exposure to traumatic events and subsequent suboptimal mental health outcomes, much less is known about how trauma is measured and experienced in populations of unaccompanied children in the US. This lack of evidence impedes the ability of service providers to make accurate assessments of trauma symptoms experienced by unaccompanied children.

The Child PTSD Symptom Scale (CPSS)

The Child Post Traumatic Stress Scale (CPSS) was developed to measure symptoms of trauma in populations of children and adolescents that correspond with the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (DSM-IV-TR) (Foa et al., 2001). The CPSS has been used in a variety of contexts, including research examining violence exposure, posttraumatic stress disorder, and depressive symptoms in a sample of immigrant children (Jaycox et al., 2002), and exploring individual, pre-migration, and post-settlement factors that predict academic success in a sample of adolescent refugees living in Australia (Wong, Schweitzer, & Khawaja, 2018).

The psychometric properties of earlier versions of the CPSS that correspond with the DSM-IV-TR have been examined in research. One such study by Gudiño and Rindlaub (2014) found that a three-factor model provided the best fit to the data. These three factors corresponded with symptoms profiles in the DMS-IV-TR: re-experiencing symptoms, avoidance symptoms, and hyper-arousal symptoms.

The factor structure of the CPSS has also been examined in a sample of Spanish speaking children and adolescents. Serrano-Ibáñez, Ruiz-Párraga, Esteve, Ramírez-Maestre, and López-Martínez (2018) examined the psychometric properties of the CPSS in a sample of 339 adolescents from Málaga, Spain. The results of a confirmatory factor analysis reveal the best fitting model is a four-factor changes in cognition or mood (i.e. “dysphoria”) model. In addition, the results indicate the CPSS demonstrated high internal consistency, with a Cronbach’s alpha coefficient for the full scale of ($\alpha = .90$), as well as strong internal consistency for the subscales: intrusion symptoms ($\alpha = .80$), avoidance symptoms ($\alpha = .70$), changes in cognition or mood ($\alpha = .83$), and arousal symptoms ($\alpha = .74$). These results are notable because they suggest the diagnostic criteria outlined in the DSM-5 (APA, 2013) are able to measure traumatic exposure in different cultural contexts (e.g., Spain). Furthermore, Serrano- Ibáñez and colleagues’ findings align with previous research supportive of a four-factor measure for PTSD in adults (King et al., 1998) and children and adolescents (Helpman et al., 2015).

In 2013 the DSM was updated from the DSM-IV-TR to the DSM-5 (APA, 2013). The updated DSM-5 includes new diagnostic criteria for PTSD. A criterion A trauma includes exposure to death, threatened death, actual or threatened serious physical injury, or actual or threatened sexual violence. These exposures can occur through direct exposure, witnessing the traumatic event, learning of a close relative or friend who was exposed to the trauma, or through

indirect exposure to the trauma in the course of professional settings (e.g., emergency medical technicians) (APA, 2013). The symptom profile of PTSD is organized into four categories in the DSM-5. These include intrusion symptoms, avoidance symptoms, symptoms of changes in cognition or mood, and symptoms of hyper arousal or reactivity (APA, 2013). The CPSS was adapted to reflect the changes to the PTSD diagnostic criteria, and recent research has included the updated CPSS-V.

Recent research (Foa et al., 2018) re-examined the psychometric properties of the updated version of the CPSS that corresponds to the new diagnostic criteria in the DSM-5 (APA, 2013). The cross-sectional sample included 64 children and adolescents who experienced a DSM-5 Criterion A trauma. In this study (Foa et al., 2018), the sample was primarily female (51.6%), 45.3% of the sample was African American, and the mean age of participants was 14.1 years old ($SD=2.5$). The CPSS exhibits overall strong psychometric properties. For scale reliability, Cronbach's alpha was .92 for both the interview and self-report versions, indicative of high internal consistency. Test-retest reliability was measured using the Pearson's correlation coefficient. Pearson correlation coefficients of .93 for the interview version and .80 for the self-report version indicate strong test-retest reliability. Results indicate the interview and self-report versions of the CPSS were highly correlated, further indicating strong convergent validity as evidenced by a large and positive correlation. Results indicate the association between the interview and self-report versions of the CPSS with the MASC and CDI were significantly lower than the association between the interview and self-report versions of the CPSS, indicating discriminant validity for the use of the interview and self-report versions of the CPSS (Foa et al., 2018).

Research Gaps

Unaccompanied children are a particularly vulnerable population, as indicated by their elevated rates of PTSD and other mental health issues. This research has been conducted in various countries including Norway (Jensen et al., 2015; Oppedal & Idsoe, 2015), Ireland (Horgan & Ní Raghallaigh, 2019), the United Kingdom (Bronstein, Montgomery, & Ott, 2013). However, very little research on PTSD or other mental health issues has occurred in the context of the US. In addition, measurement of PTSD and other mental health challenges has included standardized measures of PTSD, such as the CPSS-V. The CPSS was originally developed to correspond with diagnostic criteria in the DSM-IV-TR (Foa et al., 2001), but has since been updated to correspond with the revised diagnostic criteria for PTSD in the DSM-5. The psychometric properties of the CPSS-V have been examined in recent research (Foa et al., 2018), and the CPSS has been used to examine symptoms of trauma in populations of unaccompanied children (Jensen et al., 2015). However, a major gap in this area of research is using the CPSS to examine symptoms of PTSD exhibited by unaccompanied children in the context of the US.

Unaddressed trauma may impede children's ability to integrate in US society - existing research highlights specific elements that are associated with integration risk factors for unaccompanied children, including mental health problems (Reed, Fazel, Jones, Panter-Brick, & Stein, 2012), as well as elements associated with integration protective factors, including stable employment (Ager and Strang, 2008). The current study builds on existing research by examining the factor structure of the CPSS in the context of Spanish-speaking children and adolescents from the Central American countries of El Salvador, Guatemala, and Honduras who have migrated to the US without parents or legal guardians. The results of this study will be used to better understand how trauma symptoms are experienced, exhibited, and measured using

Western diagnostics frameworks (e.g., DSM-5, APA, 2013). The study protocol was approved by the Boston College Institutional Review Board.

Methods

Study Design

The study uses a cross sectional design. Data were gathered from two sources. First, demographic data were retrieved from administrative databases maintained by Lutheran Immigration and Refugee Service (LIRS), a national non-profit that serves unaccompanied children, refugees, and other immigrant populations exposed to forced migration or family separation. Second, data were collected by LIRS between April 2018 and September 2018 by caseworkers employed by agencies contracted by LIRS for post-release services (PRS, described below). These services include home visits, assessments of functioning, psycho-education, and supporting unaccompanied children with enrolling in school and accessing other community-based supports (USCCB, 2012).

Caseworkers administered the CPSS-V-SR (Foa et al., 2018) to unaccompanied children during routine monthly visits with the unaccompanied children on their case list. Caseworkers then uploaded data from the CPSS-V-SR form to Excel spreadsheets and emailed in a password-protected message to LIRS staff, who later sent the data to researchers for further data cleaning and analysis. The study protocol was approved the Boston College Institutional Review Board.

Sampling Strategy

This study is a secondary data analysis of data collected by Lutheran Immigration and Refugee Service (LIRS). The study includes a convenience sample of 163 unaccompanied children who were receiving Post Release Services in April and May of 2018. A total of 178 unaccompanied children were invited to complete the survey and LIRS sent responses for 163

children to researchers, resulting in a response rate of approximately 91.5%. The convenience sample was gathered from 9 sites providing PRS for unaccompanied children in the following states: Maryland, Massachusetts, New Jersey, Florida, Georgia, North Carolina, South Carolina, Virginia, and Texas. Other states that provide PRS for unaccompanied children but were not included in this study include New York, Washington, DC, Illinois, Ohio, Tennessee, Arizona, California, Oregon, Pennsylvania, Minnesota, and Rhode Island. LIRS administrators sent a letter to partner agencies outlining the details of the research study and inviting them to participate (see Appendix A). LIRS then followed up with partner agencies who expressed interest in participating. LIRS facilitated phone conference call with partner agency administrators to provide details on how to administer the CPSS-V-SR.

Post release services (PRS) refers to the provided by LIRS partners to support unaccompanied children after they are reunified with their parents or sponsors in the US (LIRS, no date). According to the United States Conference of Catholic Bishops (USCCB), an organization that, along with LIRS, is the primary facilitator of services for unaccompanied children in the US, PRS is provided for unaccompanied children in all parts of the US and follow the child if a child's family moves or the sponsor placement disrupts (USCCB, 2012).

LIRS provides home visits and case management services for unaccompanied children and their parents or sponsors. In the New York area, for example, LIRS support unaccompanied children with ongoing psychoeducation to promote their integration in resettlement communities. Finally, LIRS provides advocacy as part of their post release services to ensure unaccompanied children and their parents or sponsors can overcome barriers to accessing community-based services after reunification (LIRS, no date).

A challenge encountered in the sampling phase of the project was administrators concern about the likelihood of unaccompanied children exhibiting emotional distress while completing the CPSS-V-SR. To address this concern, researchers from Boston College provided technical assistance to LIRS and partner agencies to ensure caseworkers had the necessary tools, such as information on basic therapeutic de-escalation techniques, to support unaccompanied children who exhibited emotional distress while completing the CPSS-V-SR.

Measurement and Data Collection

The primary dependent variable of the proposed study is the Child PTSD Symptom Scale (CPSS-V-SR). The CPSS-V-SR is a self-report measure that assesses posttraumatic stress symptoms for children and adolescents age 8-18. The original CPSS corresponded with the PTSD symptom criteria of the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (Foa et al., 2001). The CPSS was later revised to reflect updated symptom profiles in the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (Foa et al., 2018). The CPSS-V-SR is comprised of twenty items that are scored on a 5-point Likert-style scale ranging from 0 (not at all) to 4 (6 or more times a week/almost always).

The twenty items of the CPSS-V-SR measure symptom severity of PTSD, with higher values indicating greater PTSD symptom severity (Foa et al., 2018). Symptom severity is calculated by summing the twenty items that correspond with symptoms of PTSD. The CPSS-V-SR scores range from 0-80. The clinical cut point of the CPSS-V-SR is 31, with scores of 31 or above indicate a probable diagnosis of PTSD (Foa et al., 2018).

In addition to overall symptom severity, subscales for different diagnostic criteria of PTSD are obtained by summing different items of the scale. These subscales include symptoms of intrusion (items 1-5), symptoms of avoidance (items 6-7), symptoms indicating changes in

cognition or mood (items 8-14), and symptoms indicating increased arousal and reactivity (items 15-20) (Foa et al., 2018). The CPSS-V-SR exhibits strong psychometric properties including internal consistency ($\alpha = .92$), test–retest reliability ($r = .80$), and convergent and discriminant validity (Foa et al., 2018). In addition, the CPSS-V-SR has been used successfully in research with refugees (Jensen et al., 2015) and with Spanish-speaking youth populations (Allison & Ferreira, 2017; Kataoka et al., 2003).

Data management. LIRS staff sent redacted CPSS data to researchers in password-protected emails and these data were housed in 12 separate Excel spreadsheet documents. Researchers compiled data from the 12 Excel Spreadsheet documents into a single CPSS Excel spreadsheet document. Data were then examined in the CPSS Excel spreadsheet document for data entry errors. The Excel spreadsheet documents were then imported to STATA 15 Student Edition.

Demographic data were obtained from the LIRS central database. The LIRS central database contained administrative data housed in Excel spreadsheet documents. The LIRS central database contains demographic data for each unaccompanied child receiving post-receiving services including date of birth, gender, case start date, and country of origin. Similar to the CPSS data, demographic data from the LIRS central database were then imported to STATA 15 Student Edition. CPSS data were then merged with LIRS demographic data using a unique numerical identifier as a link between datasets.

Procedure. Unaccompanied children who receive post-release services from LIRS partner agencies completed the CPSS-V-SR in Spanish as the main instrument measuring symptoms of posttraumatic stress (described in the section that follows). Caseworkers assigned to the unaccompanied child explained the CPSS-V-SR to the unaccompanied child and their

sponsor. Responses in the Excel database were de-identified, with a case number assigned to each unaccompanied child. This case number allows researchers to connect the CPSS-V-SR with other data from the LIRS central database while maintaining the anonymity of the participants. After completing the CPSS-V-SR, participants were provided a brief debriefing with the caseworker to assess their mental status.

Data storage plan. Data for this study were de-identified, housed in Excel documents, and stored on the password protected BC SSW network that is behind BC firewall protection and accessible only to the PI and research assistants. Data analysis was conducted using STATA 15 Student Edition on the BC secure VPN network.

Analysis Procedures

Two primary methods of analysis were used to examine the data. First, an exploratory factor analysis (EFA) was used to examine the symptom profiles of unaccompanied children who complete the CPSS-V-SR. EFA is designed to help understand how many factors there are in a sample of data, the correlation among factors, and which items on a scale (e.g., the CPSS-V-SR) best measure each factor (Schumacker & Lomax, 2016). However, EFA is exploratory in nature, and does not allow for testing theoretical models or hypotheses with inferential statistics (Costello, 2005). Beyond using EFA to explore the composition of factors in the CPSS-V-SR, a confirmatory factor analysis was used to empirically test the theoretical model of the CPSS-V-SR.

The second method of analysis, a confirmatory factor analysis (CFA), was used in two primary ways. First, a CFA was used to test the model that was identified using the EFA. Second, a CFA was used to test the theoretical model of the CPSS-V-SR, as depicted in Figure 1. CFA is an analytic approach that “determines whether the hypothesized measurement model

yields a variance-covariance matrix similar to the sample variance-covariance matrix” (Schumacker & Lomax, 2016, p. 93). CFA is a method of analysis used to “confirm a pattern of relationships predicted on the basis of theory” (DeVellis, 2017, p. 197). In the context of the CPSS-V-SR, the theoretical basis that is tested is the diagnostic framework of PTSD as depicted in the DSM-5 (APA, 2013). Thus, CFA was used in this study to determine if the diagnostic framework of PTSD, which is the theoretical framework of the CPSS-V-SR, accurately measures symptoms of PTSD in a sample of unaccompanied children living in the US. Before EFA and CFA were used to examine the factor structure of the CPSS-V-SR, descriptive statistics were obtained to understand the context of the dataset.

Descriptive statistics. Basic descriptive statistics were first obtained to examine the mean, standard deviation, and range of responses on the CPSS-V-SR. The mean, standard deviation, and range of responses for age were also obtained. Percentages for gender and country of origin were obtained.

Exploratory factor analysis. Exploratory Factor analysis was used to examine the symptom profiles of unaccompanied children who complete the CPSS-V-SR. Factor analysis is an analytic method that can empirically determine how many factors define a set of items on a scale (DeVellis, 2017). Factors refer to the constructs that are defined by a set of scale items. In the CPSS-V-SR, items 1-5 were designed to measure the construct of intrusion symptoms. Items 6-7 were designed to measure the construct of avoidance symptoms, items 8-14 were designed to measure the construct of changes in cognition or mood, and items 15-20 were designed to measure the construct of increased arousal and reactivity. These are first order factors, which together define the second order factor of PTSD. Having a second order factor and first order factors creates a hierarchical model (DeVellis, 2017).

There are several notable purposes of factor analysis in research. As DeVellis (2017) explains, one use of factor analysis is to determine the number of latent variables, or factors, that determine a set of items. In addition, factor analysis can be used to condense a set of items so that factors are explained with fewer variables. A third use of factor analysis is determining the meaning of factors by identifying the co-variation that exists between items (DeVellis, 2017). Finally, factor analysis is useful in identifying the levels of item performance, or the extent to which individual items define certain factors (DeVellis, 2017).

Given these purposes, factor analysis is a critical component of the analytic plan for this study. Factor analysis allows for a close examination of the CPSS-V-SR, and how well it performs in identifying symptoms of PTSD in a sample of unaccompanied children. For example, factor analysis allows for examining the number of factors that are defined by the 20 items of the CPSS-V-SR. While the CPSS-V-SR has been used with US populations, it has not yet been used to examine PTSD in samples of unaccompanied children from foreign settings. It is therefore unknown if the CPSS-V-SR, and the items it includes to measure PTSD, accurately capture symptoms of trauma experienced by unaccompanied children from the Northern Triangle. Furthermore, the CPSS-V-SR is based on symptom profiles defined by the DSM-5, which was created in the context of Western conceptualizations of mental health, without accounting for the distinct cultural variations of unaccompanied children from the Northern Triangle.

Factor analysis allows for examining if certain items on the CPSS-V-SR do not align with the experiences of trauma in a sample of unaccompanied children. Condensing the items of the CPSS-V-SR to include only the most accurate items can inform the development of culturally informed mental health assessments. Similarly, factor analysis examines if certain items co-vary,

thus informing the definition of first order factors that align with symptom profiles of PTSD and the second order factor of the diagnosis of PTSD. Finally, factor analysis builds on condensing the number of items that define factors by identifying the performance levels of individual items. This allows for modifications of the CPSS-V-SR to only include items that accurately assess symptoms of PTSD as experienced by unaccompanied children. A major component of the factor analysis with the CPSS-V-SR is assessing reliability. Numerous steps were taken as part of the factor analysis, including determining the reliability of the CPSS-V-SR, performing factor extraction, factor rotation, and a confirmatory factor analysis.

Reliability. The concept of reliability refers to what explains the true score of a scale. DeVellis (2017, p. 40) defines reliability as “the proportion of variance in an observed score that can be attributed to the true score of the variable being assessed.” This study examined the reliability of the CPSS-V-SR by computing the alpha coefficient. Alpha is one of the most common methods of determining reliability in social sciences, and is defined as “the proportion of a scale’s total variance that is attributable to a common source, presumably the true score of the latent variable underlying the items” (DeVellis, 2017, p. 46). In the context of the current study, alpha is the proportion of the CPSS-V-SR’s total variance that is attributable to the true score of the symptom profiles that comprise the items.

A second component of assessing reliability in the proposed study is examining the covariance matrix of the items of the CPSS-V-SR. The covariance matrix can be used to determine the total variance of the scale. The covariance matrix determines the level of correlation among items, allowing for an initial assessment of relationships between items in the CPSS-V-SR (DeVellis, 2017). In addition to reliability, factor extraction is a critical component of factor analysis.

Factor Extraction. After examining items of the CPSS-V-SR with a covariance matrix and calculating the alpha coefficient to determine the reliability of the scale, factor extraction was completed to assess the number of factors that underlie specific items of the scale. Factor extraction is a process that helps determine the smallest number of constructs that account for the correlations among scale items (DeVellis, 2017). Part of this process involves the calculation of the eigenvalues for the items of the scale. Eigenvalues are numerical values that represent “the amount of information captured by a factor” (DeVellis, 2017). Using statistical criteria, all eigenvalues greater than 1 were extracted for further analysis (Schumacker & Lomax, 2016).

A second method for determining the number of the factors to extract is using a scree plot. A scree plot is a visual depiction of eigenvalues, such that each eigenvalue plotted is based on the information from the previous eigenvalues. This leads to the plot depicting a vertical line at the left of the plot before sloping to the right of the x-axis. DeVellis (2017, p. 167) explains “the vertical portion of the plot is where the substantial factors are located while the horizontal portion is the scree, or rubble, that should be discarded.” Factor extraction in the proposed study is based on the statistical criteria of eigenvalues greater than 1. This decision is supported with visual evidence from a scree plot. After determining the number of the factors to extract for the model, the next step in the analytic plan is performing a factor rotation.

Factor Rotation. Factor rotation is a procedure that allows the extracted factors to be presented from an alternative perspective, which may result in a more interpretable solution. More specifically, “Factor rotation increases interpretability by identifying clusters of variables than can be characterized predominantly in terms of a single latent variable” (DeVellis, 2017, p. 171). Factor rotation allows for items on a scale to be understood in terms of a primary factor of

influence, rather than influence from multiple factors. Identifying a single factor of influence is referred to as simple structure, and is the ultimate goal of factor rotation (DeVellis, 2017).

Two types of factor rotation are appropriate for achieving simple structure – orthogonal rotation and oblique rotation. The primary difference between the two approaches lies with whether the factors, which are made up of groups of items, are allowed to correlate or whether they were are forced to be uncorrelated with each other. With an orthogonal rotation, the factors are forced to be uncorrelated with each other, while with an oblique rotation, the factors are allowed to correlate.

Determining the type of rotation to use includes both theoretical and statistical considerations. First, there is a theoretical premise that items on the CPSS-V-SR will correlate with each other. In order to carry a diagnosis of PTSD, an individual must experience at least one symptom from each of the four symptom profiles (APA, 2013). Furthermore, the four symptom profiles of PTSD that is measured by the CPSS-V-SR may have areas of overlap in how they are experienced by individual survivors of trauma. Because of this possible overlap that is due to the structure and guidelines of the DSM-5 diagnostic criteria, there is theoretical premise for pursuing oblique rotation in the proposed study. However, as suggested by DeVellis (2017), if the correlations among items after oblique rotation are less than .15, then orthogonal rotation will be considered.

Confirmatory Factor Analysis. This study assessed the factor structure of the CPSS-V-SR from a hierarchical analytic approach. The hierarchical approach is appropriate in that the second order factor, or PTSD diagnosis, is the theoretical cause of the first order factors, or the subscales that correspond with the four separate symptom criteria of PTSD in the DSM-5 (APA, 2013). Analyzing the factor structure using a hierarchical approach allows for a closer

examination of the multidimensionality of the CPSS-V-SR, and will identify any items that are unidimensional in nature (DeVellis, 2017). This hierarchical model is depicted in Figure 1.

Using the hierarchical approach as depicted in Figure 1, the study uses confirmatory factor analysis to examine the extent to which individual items in the CPSS-V-SR align with the symptom profile of the DSM-5 (APA, 2013). Confirmatory factor analysis was completed using STATA 15 Student Edition.

The first step of the confirmatory factor analysis was model specification. This step was necessary because multiple paths in a hypothesized model can be examined, and specification provides guidance on what paths to analyze (Schumacker & Lomax, 2016). The next step in the confirmatory factor analysis involved model identification.

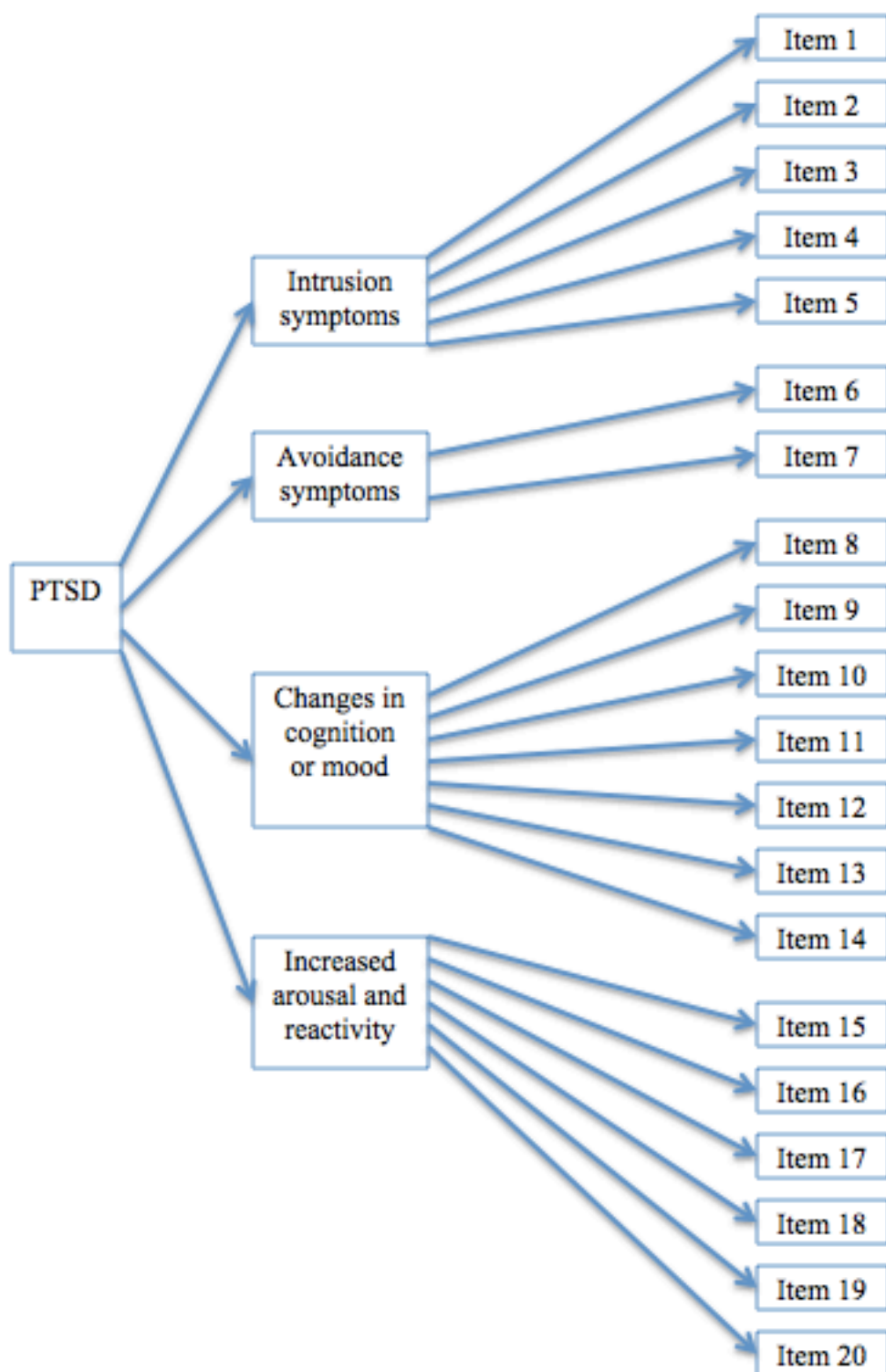
Model identification is the process of identifying the number of free and fixed parameters in the hypothesized model. The proposed model estimates 40 free estimates. This included items 1-20 and their respective path to the first order factor of intrusion symptoms, avoidance symptoms, changes in mood or cognition, or increased arousal or reactivity. In addition to these 20 paths, the model also included the 20 measurement error variances for each of the 20 CPSS-V-SR items.

The final step of the confirmatory factor analysis involved estimating the factor loadings identified in the model identification process (Schumacker & Lomax, 2016). This study used maximum likelihood estimation with results reported as unstandardized estimates. The maximum likelihood estimation was completed using STATA 15 Student Edition. Missing data were handled using maximum likelihood with missing values, which used all information available in a sample when missing values are present on one or more variables (Acock, 2013). The robust

standard errors option was used due to possible violations of the normality assumption needed for maximum likelihood estimation (Acock, 2013).

As suggested by Acock (2013) goodness-of-fit statistics used to evaluate the models include the chi-square value, the comparative fit index (CFI), and the root mean squared error of approximation (RMSEA). Models were compared using the Akaike's information criteria (AIC) and Bayesian information criteria (BIC). Goodness of fit standards that indicate acceptable fit include a non-significant chi-square value, an RMSEA value of .08 or lower, and CFI values of .90 or higher. When comparing models of fit, the lower AIC and BIC values indicate a more parsimonious model (Acock, 2013).

Figure 1 – Hypothesized Confirmatory Factor Analysis Hierarchical Model



Results

Descriptive statistics

The sample included 163 unaccompanied children living in the United States and who migrated from seven different countries. The majority of unaccompanied children migrated from the Northern Triangle in Central America (96.93%), compared to other countries. Specifically, 39.26% of unaccompanied children in the sample ($n=64$) migrated from El Salvador, 27.61% of unaccompanied children in the sample ($n=45$) migrated from Guatemala, and 30.06% of unaccompanied children in the sample ($n=49$) migrated from Honduras. One child (0.61%) migrated from Ecuador, 0.61% of unaccompanied children in the sample ($n=1$) migrated from India, 0.61% of unaccompanied children in the sample ($n=1$) migrated from Mexico, and 1.23% of unaccompanied children in the sample ($n=2$) migrated from Romania. These data, specifically the substantial number of unaccompanied children who migrate from the Northern Triangle, reflect broader trends in the US (ORR, 2018a).

The mean age of unaccompanied children in the sample was 15.28 years old ($SD=2.57$). Slightly more than half of the sample (52.76%) was male. Descriptive statistics are depicted in Table 1 (age and gender) and Table 2 (Country of Origin).

Table 2 – Descriptive Statistics

	<i>n</i>	% or <i>M (SD)</i>
Age	163	15.28 (2.57)
Gender (<i>male</i>)	163	52.76
Birth Country		
Ecuador	1	0.61
El Salvador	64	39.26
Guatemala	45	27.61
Honduras	49	30.06
India	1	0.61
Mexico	1	0.61
Romania	2	1.23
Total	163	100

Univariate Statistics

The mean and standard deviation of each item of the CPSS-V-SR was examined (results are depicted in Table 3). Each item response ranged from 0 to 4, and the sample size for each item ranged from 159 to 163. The rate of PTSD was determined by dummy coding a variable that aligns with the clinical cut point for the CPSS-V-SR. Participants who scored greater than or equal to 31 received a 1 (0 =less than 31). Rates of PTSD were also calculated for unaccompanied children from El Salvador, Guatemala, and Honduras. The rate of PTSD in the overall sample is 7.42%. Rates of PTSD vary for unaccompanied children depending on their country of origin. Nine-point-three-eight percent (9.38%; $n = 6$) of unaccompanied children from El Salvador exhibit a likely diagnosis of PTSD, 8.89% ($n = 4$) of unaccompanied children from Guatemala exhibit a likely diagnosis of PTSD, and 4.08% ($n = 2$) of unaccompanied children from Honduras exhibit a likely diagnosis of PTSD. Chi-square tests revealed no significant differences in rates of PTSD based on country of origin. Rates of PTSD are depicted in Table 4.

Table 3 – CPSS Descriptive Statistics

	Symptom Type	<i>N</i>	<i>M</i> (<i>SD</i>)	Min.	Max.
CPSS 1	Intrusion	161	0.73 (1.06)	0	4
CPSS 2	Intrusion	161	0.38 (0.79)	0	4
CPSS 3	Intrusion	159	0.31 (0.77)	0	4
CPSS 4	Intrusion	162	0.82 (1.14)	0	4
CPSS 5	Intrusion	162	0.46 (0.87)	0	4
CPSS 6	Avoidance	161	0.77 (1.24)	0	4
CPSS 7	Avoidance	160	0.60 (1.20)	0	4
CPSS 8	Change in Cognition or Mood	159	0.38 (0.84)	0	4
CPSS 9	Change in Cognition or Mood	159	0.29 (0.75)	0	4
CPSS 10	Change in Cognition or Mood	162	0.37 (0.91)	0	4
CPSS 11	Change in Cognition or Mood	160	0.44 (0.93)	0	4
CPSS 12	Change in Cognition or Mood	160	0.30 (0.79)	0	4
CPSS 13	Change in Cognition or Mood	159	0.25 (0.73)	0	4
CPSS 14	Change in Cognition or Mood	162	0.40 (0.99)	0	4
CPSS 15	Reactivity	161	0.32 (0.69)	0	4
CPSS 16	Reactivity	162	0.07 (0.39)	0	3
CPSS 17	Reactivity	162	0.97 (1.40)	0	4
CPSS 18	Reactivity	162	0.59 (1.00)	0	4
CPSS 19	Reactivity	162	0.44 (0.88)	0	4
CPSS 20	Reactivity	161	0.41 (0.95)	0	4

Table 4 - Rate of PTSD

	%	<i>n</i>
Overall Sample	7.36	12
El Salvador	9.52	6
Guatemala	8.88	4
Honduras	4.08	2

Note: %=percentage of unaccompanied children who scored at or above the clinical cut-point of 31, indicating a likely diagnosis of PTSD

Exploratory factor analysis

Factor extraction. Factor extraction using oblique rotation was used to examine the factor structure of the measure. Two, three, and four factor solutions were compared, and goodness of fit statistics reveal a one-factor solution is the best fit for the data. Factor loadings for all twenty items are presented in Table 5. Factor loadings range from 0.365 (item #16) to 0.789 (item #5). Results of the rotated factor loadings indicate each item strongly measures the construct of posttraumatic stress disorder (PTSD).

Table 5 – Rotated Factor Loadings

CPSS Item Number	Factor Loading	Uniqueness
CPSS 1	0.67	0.54
CPSS 2	0.62	0.60
CPSS 3	0.71	0.49
CPSS 4	0.76	0.41
CPSS 5	0.78	0.37
CPSS 6	0.65	0.56
CPSS 7	0.66	0.56
CPSS 8	0.73	0.46
CPSS 9	0.60	0.62
CPSS 10	0.60	0.63
CPSS 11	0.79	0.37
CPSS 12	0.62	0.61
CPSS 13	0.39	0.84
CPSS 14	0.65	0.57
CPSS 15	0.38	0.85
CPSS 16	0.36	0.86
CPSS 17	0.54	0.70
CPSS 18	0.64	0.58
CPSS 19	0.57	0.67
CPSS 20	0.57	0.66

Results of the exploratory factor analysis (EFA) are presented in Table 6. Results indicate all factor loadings are highly significant ($p < .001$), and contribute to measuring the broader construct of PTSD. These results are a departure from the theoretical framework of the CPSS-V-SR (depicted in Figure 1), which hypothesized that suggests the CPSS-V-SR is a hierarchical

four-factor solution, with items measuring four distinct subscales of PTSD, which further measure the broader construct of PTSD.

The fit of the EFA model depicted in Table 6 was examined using an array of goodness of fit statistics. This analysis revealed the one-factor EFA is a poor model fit. Modification indices (MI) were examined to provide empirical direction on how to adjust the model to improve model fit (Schumacker & Lomax, 2016). The MI indicate that five additional paths should be added in the model by allowing certain items in the EFA model to covary. These additional paths using covariances include CPSS 1 and CPSS 3, CPSS 1 and CPSS 8, CPSS 3 and CPSS 13, CPSS 10 and CPSS 19, and CPSS 16 and CPSS 20. Because modification indices are not additive, adding an additional parameter using a covariance between items changes other factor loadings in the model (Acock, 2013). Each additional path was added, and goodness of fit statistics were examined. Goodness of fit indices are depicted in Table 10. Results indicate the best fitting model contains five additional paths. This model is presented in Table 6 as the CPSS One-factor with MI model.

The results from the CPSS One-factor with MI model indicate all factor loadings are highly significant ($p < .001$) and range from 0.360 to 0.796. The covariance terms that are added as additional paths are also examined, to understand how these paths help explain the model fit. Research indicates there must be both empirical (e.g., modification indices) and conceptual (e.g., theoretical) justification for adding each additional path (Acock, 2013). The correlation coefficients of each covariance added to the model were further examined to understand the relationship between each added variable. Correlation coefficients for each covariance are depicted in Table 7.

Confirmatory Factor Analysis

Second, a confirmatory factor analysis (CFA) was completed to test the theoretical model fit of the CPSS-V-SR, as depicted in figure 1. This CFA tested the fit of a four-factor solution, with each factor corresponding to a symptom subscale as defined by the DSM-5 (APA, 2013). Similar to EFA, the initial analyses revealed a poor model fit for the four-factor solution. However, the use of MI, similar to the one-factor CFA, greatly improved the model fit for the four-factor solution. The MI indicated an addition five paths should be allowed to covary to improve the model fit. These additional paths using covariances include CPSS 17 and CPSS 18, CPSS 7 and CPSS 17, CPSS 10 and CPSS 19, CPSS 3 and CPSS 13, and CPSS 16 and CPSS 20. Similar to the EFA, each modification index was added one-by-one, and goodness of fit statistics were subsequently examined. Goodness of fit indices are displayed in Table 10.

The results of this model are presented in Table 8 as the CPSS-V-SR four-factor with MI. Results indicate the best fitting model contains five additional paths. Results indicate items 1 – 20 are significant ($p < .001$), and factor loadings range from 0.38 – 0.80. All covariances added to the model are significant ($p < .001$), and correlation coefficients for each added path in the model are depicted in Table 9.

Table 6 – Standardized and Unstandardized Factor Loadings for Exploratory Factor Analysis

Item	CPSS One-Factor		CPSS One-Factor with MI	
	Standardized Factor Loadings	<i>SE</i>	Standardized Factor Loadings	<i>SE</i>
1. Having upsetting thoughts of pictures about it that came into your head when you didn't want them to	0.67	0.06	0.67	0.06
2. Having bad dreams or nightmares	0.67 (0.69)	0.09	0.61 (0.68)	0.09
3. Acting or feeling as if it was happening again (seeing or hearing something and feeling as if you are there again)	0.70 (0.75)	0.07	0.69 (0.75)	0.07
4. Feeling upset when you remembered what happened (for example, feeling scared, angry, sad, guilty, confused)	0.76 (1.21)	0.04	0.75 (1.21)	0.04
5. Having feelings in your body when you remember what happened (for example, sweating, heart beating fast, stomach or head hurting)	0.79 (0.96)	0.05	0.79 (0.97)	0.04
6. Trying not to think about it or have feelings about it	0.66 (1.14)	0.07	0.66 (1.14)	0.07
7. Trying to stay away from anything that reminds you of what happened (for example, people, places, or conversations about it)	0.67 (1.13)	0.07	0.68 (1.14)	0.06
8. Not being able to remember an important part of what happened	0.73 (0.86)	0.07	0.73 (0.87)	0.07
9. Having bad thoughts about yourself, other people, or the world (for example, "I can't do anything right", "All people are bad", "The world is a scary place")	0.60 (0.64)	0.10	0.61 (0.64)	0.10
10. Thinking that what happened is your fault (for example, "I should have known better", "I shouldn't have done that", "I deserved it")	0.60 (0.76)	0.09	0.61 (0.78)	0.09
11. Having strong bad feelings (like fear, anger, guilt, or shame)	0.79 (1.03)	0.05	0.79 (1.03)	0.05
12. Having much less interest in doing things you used to do	0.61 (0.68)	0.10	0.62 (0.69)	0.09
13. Not feeling close to your friends or family or not wanting to be around them	0.41 (0.42)	0.13	0.43 (0.44)	0.13
14. Trouble having good feelings (like happiness or love) or trouble having any feelings at all	0.66 (0.91)	0.10	0.66 (0.92)	0.09
15. Getting angry easily (for example, yelling, hitting others, throwing things)	0.38 (0.36)	0.08	0.38 (0.37)	0.08
16. Doing things that might hurt yourself (for example, taking drugs, drinking alcohol, running away, cutting yourself)	0.37 (0.23)	0.128	0.36 (0.22)	0.12

17. Being very careful or on the lookout for danger (for example, checking to see who is around you and what is around you)	0.56 (1.09)	0.091	0.56 (1.10)	0.08
18. Being jumpy or easily scared (for example, when someone walks up behind you, when you hear a loud noise)	0.65 (0.91)	0.079	0.66 (0.92)	0.077
19. Having trouble paying attention (for example, losing track of a story on TV, forgetting what you read, unable to pay attention in class)	0.57 (0.70)	0.07	0.58 (0.72)	0.07
20. Having trouble falling or staying asleep	0.56 (0.74)	0.10	0.57 (0.78)	0.09
Covariances				
CPSS1 * CPSS3			0.26 (0.11)	0.10
CPSS1 * CPSS8			-0.26 (-0.11)	0.11
CPSS3 * CPSS13			-0.31 (-0.11)	0.07
CPSS10 * CPSS19			-0.34 (-0.17)	0.06
CPSS16 * CPSS20			0.34 (-0.11)	0.12

Note: Unstandardized factor loadings are presented in parentheses.

Table 7 – Correlation Coefficients for Added Pathways in Exploratory Factor Analysis

	<i>r</i>
CPSS1 * CPSS3	0.26*
CPSS1 * CPSS8	-0.26*
CPSS3 * CPSS13	-0.31***
CPSS10 * CPSS19	-0.34***
CPSS16 * CPSS20	0.34**

Note: *= $p < .05$, **= $p < .01$, ***= $p < .001$

Table 8 – Standardized and Unstandardized Factor Loadings for Confirmatory Factor Analysis

Item	CPSS Four-Factor		CPSS Four-Factor with MI	
	Standardized Factor Loadings	<i>SE</i>	Standardized Factor Loadings	<i>SE</i>
1. Having upsetting thoughts of pictures about it that came into your head when you didn't want them to	0.70	0.06	0.71	0.05
2. Having bad dreams or nightmares	0.63 (0.67)	0.08	0.63 (0.66)	0.08
3. Acting or feeling as if it was happening again (seeing or hearing something and feeling as if you are there again)	0.72 (0.74)	0.07	0.73 (0.74)	0.07
4. Feeling upset when you remembered what happened (for example, feeling scared, angry, sad, guilty, confused)	0.79 (1.20)	0.05	0.78 (1.19)	0.04
5. Having feelings in your body when you remember what happened (for example, sweating, heart beating fast, stomach or head hurting)	0.81 (0.94)	0.05	0.80 (0.93)	0.04
6. Trying not to think about it or have feelings about it	0.69	0.08	0.70	0.09
7. Trying to stay away from anything that reminds you of what happened (for example, people, places, or conversations about it)	0.77 (1.07)	0.09	0.77 (1.06)	0.09
8. Not being able to remember an important part of what happened	0.74	0.07	0.73	0.0
9. Having bad thoughts about yourself, other people, or the world (for example, "I can't do anything right", "All people are bad", "The world is a scary place")	0.62 (0.75)	0.10	0.62 (0.76)	0.12
10. Thinking that what happened is your fault (for example, "I should have known better", "I shouldn't have done that", "I deserved it")	0.61 (0.89)	0.09	0.61 (0.90)	0.10
11. Having strong bad feelings (like fear, anger, guilt, or shame)	0.80 (1.20)	0.05	0.79 (1.20)	0.05
12. Having much less interest in doing things you used to do	0.61 (0.77)	0.10	0.62 (0.79)	0.10
13. Not feeling close to your friends or family or not wanting to be around them	0.42 (0.50)	0.11	0.44 (0.52)	0.11
14. Trouble having good feelings (like happiness or love) or trouble having any feelings at all	0.68 (1.08)	0.09	0.69 (1.03)	0.08
15. Getting angry easily (for example, yelling, hitting others, throwing things)	0.40	0.09	0.41	0.13
16. Doing things that might hurt yourself (for example, taking drugs, drinking alcohol, running away, cutting yourself)	0.37 (0.61)	0.19	0.37 (0.59)	0.85

Item	CPSS Four-Factor		CPSS Four-Factor with MI	
	Standardized Factor Loadings	<i>SE</i>	Standardized Factor Loadings	<i>SE</i>
17. Being very careful or on the lookout for danger (for example, checking to see who is around you and what is around you)	0.58 (2.19)	0.121	0.53 (2.65)	1.39
18. Being jumpy or easily scared (for example, when someone walks up behind you, when you hear a loud noise)	0.69 (2.50)	0.075	0.66 (2.34)	1.02
19. Having trouble paying attention (for example, losing track of a story on TV, forgetting what you read, unable to pay attention in class)	0.62 (1.97)	0.07	0.62 (1.93)	0.59
20. Having trouble falling or staying asleep	0.58 (2.01)	0.10	0.60 (2.07)	0.84
Covariances				
CPSS17 * CPSS18			0.37 (0.33)	0.10
CPSS7 * CPSS17			0.36 (0.33)	0.12
CPSS10 * CPSS19			-0.35 (-0.17)	0.07
CPSS3 * CPSS13			-0.33 (-0.11)	0.07
CPSS16 * CPSS20			0.36 (0.10)	0.13

Note: Unstandardized factor loadings are presented in parentheses.

Table 9 – Correlation Coefficients for Added Pathways in Confirmatory Factor Analysis

	<i>r</i>
CPSS17 * CPSS18	0.37***
CPSS7 * CPSS17	0.36**
CPSS10 * CPSS19	-0.35***
CPSS3 * CPSS13	-0.33***
CPSS16 * CPSS20	0.36**

Note: *= $p < .05$, **= $p < .01$, ***= $p < .001$

Table 10 – Confirmatory Factor Analysis Model Fit Indices

Model	X^2 (df, <i>p</i>)	RMSEA (90% CI)	CFI	AIC	BIC
CPSS-V-SR One Factor	467.09 (170, 0.00)	0.10 (0.09 – 0.11)	0.80	7316.45	7502.08
CPSS-V-SR One Factor 1 MI	451.18 (169, 0.00)	0.10 (0.09 – 0.11)	0.81	7302.54	7491.26
CPSS-V-SR One Factor 2 MI	433.31 (168, 0.00)	0.09 (0.08 – 0.11)	0.82	7286.67	7478.48
CPSS-V-SR one-factor 3MI	422.47 (167, 0.00)	0.09 (0.08 – 0.10)	0.83	7277.83	7472.73
CPSS-V-SR one-factor 4MI	406.97 (166, 0.00)	0.09 (0.08 – 0.10)	0.84	7264.33	7462.33
CPSS-V-SR one-factor 5MI	395.58 (165, 0.00)	0.09 (0.08 – 0.10)	0.84	7254.94	7456.04
CPSS-V-SR four-factor	442.68 (164, 0.00)	0.10 (0.09 – 0.11)	0.81	7304.04	7508.23
CPSS-V-SR four-factor 1MI	425.10 (163, 0.00)	0.09 (0.08 – 0.11)	0.82	7288.46	7495.74
CPSS-V-SR four-factor 2MI	406.35 (162, 0.00)	0.09 (0.08 – 0.10)	0.83	7271.71	7482.08
CPSS-V-SR four-factor 3MI	388.41 (161, 0.00)	0.09 (0.08 – 0.10)	0.85	7255.77	7469.24
CPSS-V-SR four-factor 4MI	373.02 (160, 0.00)	0.09 (0.07 – 0.10)	0.86	7242.37	7458.94
CPSS-V-SR four-factor 5MI	359.84 (159, 0.00)	0.08 (0.07 – 0.10)	0.86	7231.20	7450.85

Discussion

Initial results of the exploratory factor analysis revealed the items of the CPSS-V-SR correspond to a one-factor solution. The one-factor solution was tested with a confirmatory factor analysis, and the results suggests the items of the CPSS-V-SR measures the broad construct of PTSD, however the nuances of PTSD symptoms measured with subscales are not reflected in the data. This result conflicts with the theoretical structure of the CPSS-V-SR (Foa et al., 2018), which corresponds with four subscales as defined in the DSM-5 (APA, 2013). In

addition, this finding is a departure from existing research indicating a four-factor solution is the best fit for measuring PTSD in adults (King et al., 1998) and children and adolescents (Helpman et al., 2015).

Additional interesting findings are the covariances that are included in the final model to improve model fit. Using modification indices to improve the model fit (Schumacker & Lomax, 2016), the results indicate some covariances are between items on the same subscale (e.g., Item #1 and Item #3; Item #16 and Item #20), while other covariances are between items on separate subscales (e.g., Item #1 and Item #8; Item #3 and Item #13). Because including covariances in CFA models require both empirical as well as theoretical support (Acock, 2013), these findings warrant further discussion to fully evaluate the theoretical basis for including these covariances.

The covariance between Item #1 and Item #3 has a theoretical basis in that both items measure symptoms of intrusion. Similarly, Item #16 and Item #20 both measure symptoms of hyper-reactivity, suggesting that both are correlated and that allowing such correlation improves the fit of the one-factor solution.

The second covariance in the best-fitting model includes items from different subscales. This covariance is between Item #1, which measures intrusion symptoms, and Item #8, which measures changes in mood or cognition. Item #8 specifically asks participants how often they experience “Not being able to remember an important part of what [the traumatic event] happened”. Interestingly, previous research suggests memory might be a characteristic of trauma that is difficult measure, as evidenced by weak factor loadings (King et al., 1998). The results of this study suggest that although Item #8 exhibits a high factor loading (0.73), it improves the fit of the model when allowed to covary with an item measuring symptoms of intrusion.

Furthermore, the results indicate memory is a better-defined characteristic of trauma experienced by unaccompanied children in the US when considered in the context of intrusion symptoms.

The third covariance in the best-fitting model, similar to the second covariance, contains items from different subscales. This covariance is between Item #3, which measures intrusion symptoms, and Item #13, which measures changes in cognition or mood. Item #3 specifically asks participants how often they experience acting or feeling as if it [the traumatic event] was happening again (seeing or hearing something and feeling as if you are there again). Item #13 asks participants how often they experience not feeling close to friends or family or not wanting to be around them. The significant and negative correlation ($r = -0.33$) suggests that as unaccompanied children report acting or feeling that a traumatic event is happening again, they will experience fewer feelings of not feeling close to friends or family or not wanting to be around them. In other words, as unaccompanied children experience more acting or feeling that a traumatic evening is happening again, they will experience feeling closer to friends or family.

One possible explanation for this covariance improving the fit of the model is the nature of the migration journey for the majority of unaccompanied children in the sample. Although common push factors that influence migration from The Northern Triangle include gang violence and widespread poverty (UNHCR, 2014), a unifying feature of unaccompanied child migration to the US is separation from parents or caregivers. Existing research indicates the reunification that unaccompanied children experience with their parents or caregivers is a complex process, particularly due to prolonged absences and difficulty adjusting to expectations upon reunification (Roth & Grace, 2015). For example, direct parenting may have been provided when the unaccompanied child was young and residing in the country of origin. After years of separation,

research indicates reunification is complicated when parents struggle with adjusting parenting strategies to meet the needs of adolescents in a different developmental stage.

Second, reunification with a parent may also involve the disruption of family ties in the unaccompanied child's country of origin. Because of this possible disruption, unaccompanied children might experience increased feelings of closeness with family upon arrival to the US, particularly when confronted with heightened symptoms of intrusion (e.g. item #3). The process of migration complicated the sense of relationships for unaccompanied children, which may explain why Item #13, measuring how often an unaccompanied child experiences not feeling close to friends or family, is better understood in the context of an intrusion symptom, such as acting or feeling as if a traumatic event were happening again.

The fourth covariance that improves the fit of the model includes Item #10 and Item #19. Item #10 is an item measuring changes in cognition or mood and asks participants how often they experience thinking that what happened [the traumatic event] was their fault. Item #19 measures increased arousal and reactivity and asks participants how often they have trouble paying attention. The correlation coefficient of $r = -.33$ indicates there is a weak and negative correlation between Item #10 and Item #19. This suggests that as unaccompanied children think that the traumatic event that happened to them is their fault (e.g., Item #10), they will have less trouble paying attention (e.g., Item #19). Complicating this correlation is the presence of various cultural factors, including language differences, which may impede an unaccompanied child's ability to pay attention. For example, if unaccompanied children encounter language differences in school settings as they learn English language skills, they may be forced to expend cognitive energy to navigate language differences, resulting in overcompensating to pay attention in a classroom setting. In other words, the difficulty with paying attention may be more related to

navigating language barriers, than with prior exposure to trauma. In addition, research indicates unaccompanied children migrate to the US for varied reasons including poverty, exposure to violence, and seeking family reunification (UNHCR, 2014). If unaccompanied children migrate to the US to avoid poverty or violence, or reunify with family members, they may experience further family disruption because of family members who remain in their country of origin. Such disruption of family ties in the country of origin could explain the presence of guilt as a cognitive schema.

After testing the results of the one-factor solution, a CFA was used to test the theoretical framework of the CPSS-V-SR. This theoretical framework includes four subscales: avoidance symptoms, intrusion symptoms, changes in cognition or mood, and symptoms of reactivity. The results of this CFA indicate a four-factor solution is the best fitting model, compared to the one-factor EFA solution. This result corresponds with existing literature that suggests with the theoretical structure of the CPSS-V-SR (Foa et al., 2018), which is aligned with four subscales as defined in the DSM-5 (APA, 2013). In addition, this finding is aligned with existing research indicating a four-factor solution is the best fit for measuring PTSD in adults (King et al., 1998) and children and adolescents (Helpman et al., 2015).

Using the goodness of fit statistics to guide interpretation, it is clear that the four-factor solution is the preferred model. However, similar to the one-factor solution, several modification indices (MI) were needed to improve the acceptability of model fit. Interestingly, three of the five MI used to improve the fit of the four-factor solution are also used in the one-factor solution to improve the fit of the model. These include items #10 and #19, #3 and #13, and #16 and #20. Two covariances in the four-factor solution – items #17 and #18, and #7 and #17 – are unique to the four-factor solution and warrant further discussion.

The covariance between item #17 and #18 are justified empirically with the MI, however there is theoretical justification as well. Because items #17 and #18 measure the same construct of PTSD (e.g., increased arousal and reactivity), it is understandable that these items would correlate to improve the model fit. More specifically, item #17 measures how often a child or adolescent experiences being careful or on the lookout for danger. Item #18 measures how often a child or adolescent experiences being jumpy or easily scared. Both items depict different features of hyper-vigilance, and their weak correlation of $r = 0.37$ suggests that as a child or adolescent experiences being careful or on the lookout for danger, the amount of times they experience being jumpy or easily scared also increases.

The second covariance unique to the four-factor solution is slightly more difficult to interpret. The MI indicate allowing items #7 and #17 to covary improves the fit of the model. These items measure different characteristics of PTSD. Item #7 measures symptoms of avoidance and item #17 measures increased arousal or reactivity. Although these items measure different features of PTSD, the content of the item suggests a correlation between the symptoms. For example, item #7 measures how often a child or adolescent experiences trying to stay away from anything that reminds them of a traumatic event. Item #17 measures how often a child or adolescent experiences being very careful or on the lookout for danger. The positive and weak correlation between the items ($r = 0.36$) suggests that as a child or adolescent experiences trying to avoid traumatic stimuli (e.g., item #7), the amount of times a child or adolescent experiences being careful or on the lookout for danger also increases. Including this covariance in the four-factor solution suggests that for unaccompanied children, symptoms measuring avoidance (e.g., item #7) and symptoms measuring increased arousal or reactivity (e.g., item #17) overlap in a

way that may increase the precision of the CPSS-V-SR in capturing symptoms of PTSD more broadly.

Implications

Previous research has examined the factor structure of the CPSS that corresponds with the DSM-IV-TR (Gudiño & Rindlaub, 2014), and more recent research has examined the psychometric properties of the CPSS that corresponds with the DSM-5, the latest version of the DSM. However, this study is the first known attempt to examine the factor structure of the CPSS-V with a sample of unaccompanied children in the US. Given the growing numbers of unaccompanied children arriving to the US from the Northern Triangle countries of El Salvador, Guatemala, and Honduras (ORR, 2018a), understanding how symptoms of trauma are exhibited by unaccompanied children has some preliminary implications for clinical practice and research.

First, the results of this study can be used to inform how clinicians assess trauma in samples of unaccompanied children from the Northern Triangle. The results suggest that unaccompanied children exhibit trauma symptoms that are captured by the nuances of subscales outlined in the DSM-5, and that the four-factor solution, as depicted in Figure 1, is the best fitting model for the data.

However, there are important nuances that clinicians and researchers should note in regards to the experiences of trauma for unaccompanied children in the US. While the goodness of fit statistics indicate that the four-factor solution is the best fitting model for the data, the modification indices used to enhance the fit of the model should guide interpretation of results when used with samples of unaccompanied children. For example, the results suggest that symptoms of avoidance and increased arousal may overlap for unaccompanied children who experience trauma. This is evident in the covariance between item #7 and item #17 that improves

the fit of the four-factor solution. In a clinical setting this overlap in symptoms could present as an unaccompanied child attempting to isolate in response to fear of exposure to traumatic stimuli (e.g. item #7) while also exhibiting hyper-vigilance that manifests as anxiety (e.g. item #17). This overlap in symptoms could result in school avoidance, limited engagement in community-based activities, and limited social interaction with peers. The results can orient clinicians to assessing the pathology of trauma with more precision, thus leading to a fuller understanding of the suffering unaccompanied children experience post-migration to the US.

Perhaps the most important implication of this study is for future research. Given the relatively small sample size and exploratory nature of this study, future research should examine the factor structure of the CPSS-V-SR in a larger sample of unaccompanied children from the Northern Triangle. Future research should specifically examine the factor structure of the CPSS-V-SR in subsamples by country of origin, which is something the current study was not able to achieve. The results of the current study, particularly the covariances of items in different subscales of PTSD, highlight the importance of future research using qualitative methods to capture a more detailed explanation of how trauma is experienced by unaccompanied children from the Northern Triangle. Such research could be used to further understand the results of the current study by gathering the narratives of unaccompanied children that focus on overlapping symptoms unearthed by the covariances in the best-fitting model. Qualitative methods can identify the possible tension that exists for unaccompanied children who experience overlapping trauma symptoms, and how this tension manifests in different settings including school, home, and the community. Finally, the results of this study can inform future efforts to develop new measures and adapt existing measures to meet the unique needs of culturally diverse populations of unaccompanied children living in the US. Future measurement development includes

designing questions that capture the nuance that exists in the overlap between items that covary in the four-factor model. Knowing that these covariances improve the fit of the model, measurement development should seek to capture these symptoms in a single item, rather than relying on two items that co-vary.

Limitations

There are a series of limitations that should caution interpretation of the results. First, the small sample size limited the statistical power and thus possibly affected the fit of the best-fitting model. The limited sample size also prevented closer analysis of the factor structure of CPSS by country of origin. This prohibited sub-sample analyses for El Salvador, Guatemala, or Honduras. Second, the sample used in this study is comprised of unaccompanied children who received post-release services. Therefore, the results of the study are generalizable only to unaccompanied children who receive those services, and not unaccompanied children who do not need or otherwise do not have access to post-release services. This is a notable limitation, given the numbers of unaccompanied children who do not receive post-release services or experience gaps in receiving post-release services (Roth & Grace, 2015).

An additional limitation is the sampling bias that exists due to the nature of data collection. CPSS data was collected by nine different agencies that provide post-release services. However, this excludes multiple agencies throughout the US that also provide post-release services, such that the study findings may not necessarily be generalizable to all children receiving such services from other service providers. In addition, the length of time an unaccompanied child received post-release services was not included in the administrative dataset, thus limiting the ability to examine how length of service provision is related to differences in PTSD symptomatology.

Finally, although the CPSS was administered in Spanish, caseworker reports indicate unaccompanied children from Guatemala typically speak a first language other than Spanish, often an indigenous language. These language differences may complicate the accuracy of the data collected by the CPSS.

Conclusion

Unaccompanied children who migrate to the US from the Northern Triangle countries of El Salvador, Guatemala, and Honduras experience various types of trauma before migration including exposure to violence (UNHCR, 2014), as well as trauma during their migration journey including sexual assault (UNICEF, 2015). While trauma experienced by unaccompanied children has been examined in the context of Europe (Bronstein et al., 2013; Thommessen et al., 2017; Vervliet et al., 2014), research on trauma experienced by unaccompanied children in the context of the US is in a nascent stage. This study addresses this gap by examining the factor structure of the CPSS-V-SR in a sample of unaccompanied children who are receiving post-release services in the US.

The results of this study indicate symptoms of PTSD experienced by unaccompanied children living in the US are best measured with a four-factor model. This main finding is aligned with previous research that suggests a four-factor model is the best fit for children and adolescent survivors of trauma (Helpman et al., 2015). This finding is encouraging in that it supports the use of DSM-5 diagnostic criteria in assessing symptoms of trauma in samples of unaccompanied children in the US. However, the exploratory nature of this study warrants continued research, particularly in the realm of sub-sample analyses to look at country differences. Amidst ongoing debate regarding the utility of PTSD as defined by the DSM-5 for assessing complex trauma (Van Der Kolk, 2014), the results of this study can inform future

development of culturally adaptable trauma measures that accurately capture symptoms of trauma as experienced by unaccompanied children in the US. .

Chapter III: Maltreatment, externalized behaviors, and mental health crises: Factors related to adversity experienced by unaccompanied children in long-term foster in the

United States

Introduction

In recent years, unaccompanied children have entered the US at the US/Mexico border, arriving from the Central American countries of El Salvador, Honduras, and Guatemala (hereafter “Northern Triangle”). This dynamic includes a substantial increase from 13,625 referrals for unaccompanied children to the US Office of Refugee Resettlement (ORR) in 2012 to 49,100 referrals in 2016 (Office of Refugee Resettlement, 2018a). Unaccompanied children face myriad challenges during their migration journey to the US, including exposure to family separation, sexual violence, and financial extortion (UNICEF, 2016). Substantial numbers of unaccompanied children also experience violence in their country of origin, influencing their decision to migrate. In the context of the Northern Triangle, 63% of unaccompanied children from El Salvador, 20% of unaccompanied children from Guatemala, and 44% of unaccompanied children from Honduras experienced or were threatened with violence in their community (UNHCR, 2014). Along with violence, child maltreatment, including physical abuse, emotional abuse, sexual abuse, sibling violence, or intimate partner violence was reported by 20% of children from El Salvador, 23% of children from Guatemala, and 24% of children from Honduras (UNHCR, 2014).

In spite of these increases, little research has been completed that focuses on the strengths or needs of unaccompanied children from the Northern Triangle or how they fare after migrating to the US. With few formal supports and potentially complex health and mental health needs, research is needed to better understand how best to support this vulnerable population and

uncover potential factors that promote or impede their integration into US communities.

Research indicates certain threats to functioning, particularly mental health problems, are also barriers to immigrant integration in the US (NASEM, 2015).

The current study includes a sample of 204 unaccompanied children placed in long term foster care and examines factors associated with adversity unaccompanied children experience after their arrival to the US. In addition, the exploratory nature of this study offers directions for future research to explore different factors associated with adversity experienced by unaccompanied children. This study is guided by a cumulative risk theoretical framework and examines the extent to which two risk factors that threaten immigrant integration – history of child maltreatment and substance abuse – are associated with adversity experienced by unaccompanied children in long-term foster care in the United States.

Long-Term Consequences of Maltreatment on Health and Mental Health Functioning

Child maltreatment is defined as “Any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm” (Children’s Bureau, 2017, para 2.). A large body of research documents the long-term consequences of maltreatment – including physical abuse, sexual abuse, and neglect – on youth functioning, including mental health, developmental, and health functioning. Research indicates there is an association between physical abuse in childhood and experiencing subsequent psychiatric symptoms including suicidal ideation, anxiety, depression, and somatization (Adams, Mrug, & Knight, 2018; Springer, Sheridan, Kuo, & Carnes, 2007).

In addition to the link with mental health outcomes, child maltreatment is also associated with suboptimal cognitive development. Research indicates exposure to maltreatment in multiple

developmental periods between birth and age 9 is associated with lower IQ scores, compared to children who experienced maltreatment in only one developmental period (Jaffee & Maikovich-Fong, 2011). A history of maltreatment, compared to no maltreatment history, is also associated with impairments in executive functioning, attention, working memory, learning, visuospatial functioning, and visual processing speed (Vasilevski and Tucker, 2016). Exposure to child abuse is also associated with suboptimal health outcomes within the previous year, such as asthma, flu, headache, stomachache, or dizziness (Graham-Bermann & Seng, 2005).

Research highlights how different types of maltreatment affect youth functioning in varied ways. Pears, Kim, and Fisher (2008) used latent profile analysis to explore maltreatment profiles in a sample of children in foster care and their association with cognitive functioning, externalizing problems, and internalizing problems. Their results included five different profiles of maltreatment: physical abuse, sexual abuse, physical neglect, supervisory neglect, and emotional maltreatment. They found that children in foster care that are exposed to sexual abuse and emotional maltreatment exhibit higher rates internalizing problems compared to children exposed to supervisory neglect and emotional maltreatment. They also found that children exposed to physical abuse, emotional maltreatment, and neglect exhibited higher rates of internalizing behavior compared to children in the supervisory neglect and emotional maltreatment group. Finally, children exposed to physical abuse, emotional maltreatment, and neglect exhibited lower cognitive functioning compared to children exposed to sexual abuse and neglect (Pears et al., 2008).

Along with multiple domains of functioning such as mental health and cognitive capacity, child maltreatment can impede immigrant integration. For example, Grumi, Milani, and Di Blasio (2017) completed research that explored risk and protective factors for placing

immigrant children in foster care. Among their findings, the authors found that history of neglect is significantly associated with a social worker's decision to place a child from an immigrant family in foster care. In addition, the authors found that immigrant families, compared to native-born families, exhibited a higher percentage of limited networks and social integration. The results of the study contribute to a growing body of research that highlights how child maltreatment, particularly history of neglect, can complicate immigrant integration (Grumi et al., 2017). Along with a large body of research (e.g., Adams et al., 2018; Malinosky-Rummell & Hansen, 1993; Springer, Sheridan, Kuo, & Carnes, 2007) identifying the association between child maltreatment and youth functioning, there is also a large amount of scholarship exploring the association between substance use and youth functioning.

Long-Term Consequences of Substance Abuse on Health and Mental Health Functioning

Substance abuse is defined as “the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs” (World Health Organization, 2017). A large body of research documents the negative long-term consequences of substance abuse (e.g., Kandel et al., 1999; Welsh et al., 2017). For example, adolescent substance abuse is associated with youth functioning in multiple domains including health and mental health (Gilvarry, 2000). Kandel and colleagues (1999) found that twice as many youth with a substance use disorder compared to youth without a substance use disorder experienced a lifetime mood, anxiety, or disruptive disorder. Similarly, Brook, Cohen, and Brook (1998) examined the effects of substance abuse over time, and found that substance abuse in childhood is associated with depressive and disruptive disorders in adulthood (Brook, Cohen, & Brook, 1998).

Contemporary scholarship has identified the effects of substances on mental health with more precision. For example, research suggests adolescents with abuse or dependence of opioids

are over two times as likely to have an anxiety related disorder compared to adolescents without abuse or dependence of opioids (Welsh et al., 2017). Adolescents with abuse or dependence on cocaine are over 3.5 times as likely to exhibit symptoms of Post-Traumatic Stress Disorder (PTSD) compared to adolescents without abuse or dependence of cocaine, and adolescents with abuse or dependence of marijuana are over 2 times as likely to exhibit externalizing behaviors compared to adolescents without marijuana abuse or dependence (Welsh et al., 2017). Research also documents factors that are associated with higher risk of substance use for youth in foster care. In a study examining risk factors for alcohol and marijuana use among adolescents in foster care, Thompson and Auslander (2007) found that skipping school and having friends who used marijuana and other substances were both associated with higher risk of alcohol, marijuana, or both alcohol and marijuana use.

Youth in foster care report rates of marijuana and alcohol use similar to youth not receiving foster care services, however evidence suggests rates of using other substances including opiates, amphetamines, cocaine, and hallucinogens are higher in populations of youth receiving foster care services, compared to youth not receiving foster care services (Braciszewski & Stout, 2012). In a study examining substance use disorders in a nationally representative sample of American adolescents involved in foster care, Pilowsky and Wu (2005) found significant differences in rates of substance use between adolescents receiving foster care and adolescents not receiving foster care. Adolescents in foster care exhibited 4.5% greater odds of reporting any alcohol use, 9.7% greater odds of reporting any alcohol abuse, and more than three times greater odds of reporting alcohol dependence, compared to adolescents not in foster care. Rates of drug use presented a similar pattern with a greater effect. Adolescents in foster care exhibited more than two times greater odds of reporting any drug use, more than three times

greater odds of reporting any drug dependence, and more than four times greater odds of reporting drug dependence, compared to adolescents not in foster care (Pilowsky & Wu, 2005). Some research indicates youth in foster care use substances at lower rates compared to youth not in foster care.

Specifically, Zhan, Smith, Warner, North, and Wilhelm (2016) found that youth in foster care exhibited lower rates of current substance use compared to youth not in foster care. The researchers suggest this finding is associated with various protective influences of the foster care system such as increased monitoring from foster care parents, access to consultation and treatment for substance use and mental health issues, and the nurturing environment of foster family systems.

Recent research has examined substance use in populations of vulnerable immigrant groups, including unaccompanied children in the US. In a qualitative study examining trauma symptoms, coping strategies, and substance use behavior in a sample of 30 unaccompanied children from Mexico and the Northern Triangle, Berger Cardoso (2018) found that 17% of the sample reported any prior substance use. The three most commonly reported substances used by unaccompanied children were tobacco, alcohol, and marijuana. Importantly, this research revealed that adaptive coping skills (e.g. talking with friends or family, a counselor at school, or engaging in activities such as sports or church) are inversely associated with all substance use except tobacco, suggesting that greater use of adaptive coping is associated with lower rates of substance use (Berger Cardoso, 2018).

Long-Term Foster Care for Unaccompanied Children

Similar to youth in domestic foster care, unaccompanied children who enter the US are often particularly vulnerable due to a lack of guardianship from a supportive and caring adult (LIRS, 2015). While the goal is to reunify unaccompanied children with their caregivers, certain circumstances may lead to unaccompanied children being placed in long-term foster care in the US. This service option is available for unaccompanied children in specific cases, outlined below.

Unaccompanied children qualify for placement in long term foster care if they meet three specific criteria: (1) if it is expected the unaccompanied child will be in ORR custody for 4 months or longer because a viable sponsor cannot be identified; (2) a legal services provider reports the unaccompanied child may be eligible for legal immigration relief; and (3) the unaccompanied child is younger than 17 years and 6 months at their time of apprehension in the US (ORR, 2018b). Importantly, ORR identifies a series of risk factors that preclude unaccompanied children from being placed in long-term foster care, including (1) unaccompanied children with moderate or high risk of running away from a placement; (2) unaccompanied children with a history of substantial criminal justice activity or who actively pose a threat to the safety and wellbeing of themselves, others, or the community; and (3) unaccompanied children who seek to voluntarily repatriate to their country of origin (ORR, 2018b).

The long-term foster care programs and placements facilitated by ORR are governed by the same national and state level policies to ensure unaccompanied children receive the care and services needed to maintain their health and well-being (United States Conference of Catholic Bishops [USCCB], 2013). Long-term foster care placements for unaccompanied children also

address needs that are unique to children from diverse cultural contexts including English language classes, cultural orientation, support with family tracing and reunification, and clinical services that address issues related to trauma from human trafficking and forced migration (USCCB, 2013). Because many children entering long-term foster care are older adolescents, services included in long-term foster care also aim to assist unaccompanied children with transitioning to adulthood and acquiring the skills that promote integration in US communities (USCCB, 2013).

While there is a large body of research documenting outcomes for native born children in foster care (Oswald, Heil, & Goldbeck, 2010), and less so for immigrant children in foster care (Dettlaff & Cardoso, 2010), very little empirical research has been conducted on outcomes for unaccompanied children in foster care. For youth in domestic foster care, Courtney and Dworksy (2006) found that remaining under the care and supervision of the child welfare system is associated with a higher likelihood of being employed and being enrolled in school after exiting care. Similarly, Hook and Courtney (2011) found that the number of years youth remain in foster care is associated with higher education attainment and higher wage earnings in adulthood.

Although remaining in foster care is associated with optimal outcomes for independent living, longer stays in foster care are associated with adversity for youth in other life domains, including health and mental health needs (Sullivan & van Zyl, 2008). In a study examining the physical and mental health needs of children in foster care, Sullivan and van Zyl (2008) found that in a sample of 2,996 children in foster care in Kentucky, the percentage of children with a diagnosed emotional need such as depression increased as time in care increased. For example, the percentage of children with a diagnosed emotional need increased from 51% of children who were in care less than seven months to 63% of children who were in foster care between seven

and forty months to 75% of children who were in care more than forty months (Sullivan & van Zyl, 2008).

For unaccompanied children in long term foster care, Crea and colleagues (2017) found that children were more likely to change placements in foster care if they experienced violence in their countries of origin and if they engaged in significant acting out behavior while in care. Other research on unaccompanied children highlights positive outcomes from care. For example, longer lengths of stay in foster care are associated with higher education attainment for unaccompanied refugees minors in the United States (Crea, Hasson III, Evans, Berger Cardoso, Underwood, 2018b). With a growing body of research that has examined different outcomes for unaccompanied children in long term foster care including predictors of placement changes (Crea et al., 2017a) and education outcomes (Crea et al., 2017b), this study extends this work to focus on factors related to adversity experienced by unaccompanied children while placed in the long-term foster care program. A cumulative risk framework is used to guide this exploratory study into the dynamics associated with adversity for unaccompanied children in long term foster care in the US.

Cumulative Risk Framework

Life course theory has been used in social science research to understand how human beings change within social environments and across multiple developmental stages (Elder Jr., 1998). Within life course theory, cumulative risk is a framework that explains how exposure to risk factors across different development stages can explain adversity and maladaptive outcomes. Cumulative risk framework has guided research on mental health for children adopted from child welfare systems (Hussey, Falletta, & Eng, 2012), victimization and mental health of children and adolescents (Turner, Finkelhor, & Ormrod, 2006), and behavior outcomes for children exposed

to prenatal-substances (Crea, Barth, Guo, & Brooks, 2008). In an early study of cumulative risk, Turner and Lloyd (1995) found that in a sample of 1,393 adults, cumulative exposure to traumatic events in childhood was associated with heightened risk of subsequent mental health and substance abuse disorders. A major gap in research using the cumulative risk framework is examining how unaccompanied children are affected by risk in the context of long term foster care. Given the increasing numbers of unaccompanied children who migrate to the US (ORR, 2018a), this is a pressing area of research.

Research Questions

This study will build on a large body of research that identifies the association between child maltreatment and adverse outcomes by examining child maltreatment in a population of unaccompanied children in long-term foster care. Similarly, the study extends the body of literature that highlights the association between child substance abuse and adversity for children in domestic foster care. The study will examine to what extent children maltreatment and child substance abuse are associated with adversity for unaccompanied children in long term foster care in the US. The current study is guided by a cumulative risk theoretical framework to understand factors associated with adversity, and addresses the following research questions:

- (1) To what extent is a history of child maltreatment – physical abuse, verbal abuse, sexual abuse, or neglect – associated with adversity experienced by unaccompanied children exiting long-term foster care in the United States?
- (2) To what extent is a history of substance abuse prior to migrating to the United States associated with adversity experienced by unaccompanied children exiting long-term foster care in the United States?

Methods

Sampling Strategy

The sample for this study includes 204 unaccompanied children living in long-term foster care provided under the auspices of Lutheran Immigration and Refugee Service (LIRS), a national non-profit organization that contracts with ORR to provide these placements. The data were collected during children's placements in long-term foster care at their time of discharge or during a routine meeting with a program staff member. Data were collected by program staff members, however if a child was engaged in or interviewed about a specific incident while in care, the interview occurred in the child's primary language. The sample includes every child that was discharged in FY2015. Five cases were dropped due to conflicts with face validity. These include 4 cases of "Pregnant" and 1 case of "Death of UC". The resulting sample size after assessing missing values and implementing multiple imputation with chained equations to manage missing values is 204.

Measurement and Data Collection

The dependent variable in the analyses is adversity. Adversity is measured by the number of significant incident reports (SIRs) unaccompanied children received while they were in foster care. Significant Incident Reports (SIR) are created by program staff in various scenarios including (1) in a self-report manner by a child to a program staff, (2) an incident can be observed by a program staff, (3) an incident can be reported by a peer (i.e. a child in another program), and (4) an incident can be reported by a third-party (e.g., medical provider, community therapist, federal staff at the local level). SIRs are further classified as either Emergency or Standard. Emergency SIRs are typically recorded for incidents that pose a threat

to the current safety or life of a child or sponsor. The measure used in the current study includes both Standard and Emergency incident reports.

There are 23 different types of incidents that comprise the SIR variable, including disruptive behavior, allegation against program staff, self harm behavior, mental health emergency, and runaway behavior (see Appendix B for a complete list of SIRs). The SIR types can be further categorized as (1) internalizing issues, (2) externalizing issues, or (3) victimization. The SIR variable is a proxy measure of the level of adversity an unaccompanied child experiences in foster care, with higher counts of SIR indicative of greater adversity.

The significant incident report (SIR) variable is a count variable, measuring the number of SIRs an unaccompanied child receives while in long term foster care. The SIR variable ranges from 0 – 7. Although there are 23 different types of SIR, the types of incidents in this number varied such that the maximum number of SIRs experienced by any child in the sample is 7. Thus, for unaccompanied children who received the maximum number significant incident reports (i.e. 7), they experienced varied types of SIRs, and not necessarily 7 of the same type of SIRs.

Previous work has used “adversity” as a measure of threat to child development (Gest, Reed, & Masten, 1999), and in this study, the use of SIRs builds on previous research studies that use incident reports from case files as a measure of adversity. For example, in a randomized control trial studying the prevention of violent behavior, Eddy, Whaley, and Chamberlain (2004) used official reports of violence from criminal records as a measure of violent behavior. Also, in their work researching physical restraints in residential treatment settings, Crosland and colleagues (2008) used incident reports documenting the use of physical restraints as the primary dependent measure. Although the variable measuring adversity in the current study is not a

standardized measure, it aligns with previous definitions of adversity as a threat to a child's development and wellbeing (Masten, 2014), and the use of similar incident reports in previous research (e.g., Crosland et al., 2008; Eddy et al., 2004).

Independent Variables

Independent variables in the analyses include age (years old at discharge), gender (1=*male*), length of stay in long-term foster care (number of months), history of neglect (1=*yes*), history of sexual abuse (1=*yes*), history of physical abuse (1=*yes*), history of verbal abuse (1=*yes*), history of substance use (1=*yes*), and country of origin. History of neglect is a dichotomous variable that measures if a participant has a history of neglect. History of sexual abuse is a dichotomous variable that measures if a participant has a history of sexual abuse. History of physical abuse is a dichotomous variable that measures if a participant has a history of physical abuse. History of verbal abuse is a dichotomous variable that measures if a participant has a history of verbal abuse. Substance abuse is a dichotomous variable that measures whether participants have a history of using illicit drugs or alcohol prior to migrating to the US. Country of origin includes three dichotomous variables that measure whether a participant is from El Salvador (1=*yes*, 0=*other*), Guatemala (1=*yes*, 0=*other*), or Honduras (1=*yes*, 0=*other*).

Analysis Procedures

Bivariate statistics include chi-square and independent samples t-tests to assess differences between independent variables and adversity. A negative binomial regression model was used to assess how gender, age at discharge, number of months in care, history of sexual abuse, history of physical abuse, history of verbal abuse, history of substance use, and country of origin are associated with adversity unaccompanied children experience while in long-term foster care.

In bivariate and negative binomial regressions, multiple imputation with chained equations was employed to handle missing data, resulting in a final sample size of 204. Multiple imputation with chained equations was chosen due to its versatility and ability to handle missing data from different variable types including categorical and continuous level variables (White, Royston, & Wood, 2011). Missing data included 79 responses for gender (27.62%), 79 responses for age (27.62%), 96 responses for length of stay (33.57%), 79 responses for history of neglect (27.62%), 79 responses for history of sexual abuse (27.62%), 79 responses for history of physical abuse (27.62%), 79 responses for history of verbal abuse (27.62%), 27 responses for substance abuse (9.44%), and 79 responses (27.62%) for El Salvador, Honduras, Guatemala, and Other countries. Prior to conducting multiple imputation, a *t*-test was conducted to assess if missing cases were different in their experience of adversity compared to non-missing cases. Results indicated there is a significant difference in how missing cases experience adversity compared to non-missing cases ($p < .0001$). The results indicate missing cases, compared to non-missing cases, experience fewer numbers of significant incidents ($M = 1.35$, $SD = 1.73$). This significant difference, along with the high percentages of missing data among independent variables (e.g., 27.62% of maltreatment) led to the use of multiple imputations with chained equations to address missing data. The study protocol was approved by the Boston College Institutional Review Board.

Results

The majority of unaccompanied children in the sample are male (75.00%) and the mean age at discharge was 19.38 years old ($SD = 2.96$). The mean length of stay in long-term foster care was 10.17 months ($SD = 5.97$). Nearly a quarter of the sample had a history of maltreatment (24.02%), and 7.78% of the sample reported engaging in substance abuse prior to migrating to

the US. Fourteen countries of origin are included in the sample, including Bangladesh, Belize, Ecuador, El Salvador, Ethiopia, Ghana, Guatemala, Honduras, Mexico, Nicaragua, Nigeria, Russia, Saudi Arabia, and Somalia. The majority of the sample is from the Central American Countries of El Salvador (6.86%), Guatemala (35.78%), and Honduras (33.82%). Descriptive statistics are displayed in Table 11.

SIRs for unaccompanied children range from 0-7 with a mean of 2.77 ($SD=2.20$). Results of bivariate statistics are displayed in Table 11. Male unaccompanied children with a history of maltreatment receive more significant incident reports (SIR), $M=3.18$ ($SD=2.18$) compared to female unaccompanied children with a history of maltreatment, $M=1.62$ ($SD=1.89$) ($p<.05$). No significant differences were found based on countries of origin.

Out of a total analytic sample of 204 unaccompanied children, 11.27% experienced 0 SIRs while in long term foster care. Nearly a quarter of the sample (24.51%) experienced 1 SIR, followed by 21.57% who experienced 2 SIRs, and 12.25% who experienced 3 SIRs. Greater numbers of SIRs comprised a smaller percentage of the sample, with 6.86% of unaccompanied children experiencing 4 SIRs, 7.35% of unaccompanied children experiencing 5 SIRs, 4.41% of unaccompanied children experiencing 6 SIRs, and 11.76% of unaccompanied children experiencing 7 SIRs.

Table 11. Descriptive Statistics

	N=204 % or M(SE)	History of Neglect		History of Sexual Abuse		History of Substance Abuse	
		Yes % M(SD)	No % M(SD)	Yes % M(SD)	No % M(SD)	Yes % M(SD)	No % M(SD)
<i>Gender</i> (1=male)	75.00	1.31	98.69	7.84	92.65	9.15	90.85
<i>Age</i> (years)	19.38 (2.96)	20.08 (0.92)	19.37 (2.97)	19.79 (1.74)	19.34 (3.04)	20.10 (3.17)	19.30 (2.93)
<i>Length of Stay</i> (months)	10.17 (5.97)	12 (8.48)	10.15 (5.97)	7.93 (5.13)	10.36 (6.01)	12.47 (7.79)	9.91 (5.70)
<i>History of Neglect</i> (1=Yes)	0.98	-	-	0.00	100	2.67	
<i>Substance Abuse</i> (1=Yes)	7.78	0.00	100.00	5.26	94.74	-	-
<i>Country of Origin</i>							
El Salvador	6.86	7.14	92.86	7.14	92.86	21.43	78.57
Guatemala	35.78	1.37	98.63	8.22	91.78	9.59	90.41
Honduras	33.83	0	100.00	8.70	91.30	5.80	94.20
Other	23.53	0	100.00	4.27	95.83	10.42	89.58

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

Results from a negative binomial regression are depicted in Table 12. Model 1 includes all forms of maltreatment history and covariates. Model 2 is a reduced model, including only the types of maltreatment history and covariates that are significant or nearly significant. Post hoc analyses revealed the history of neglect variable to be an outlier that exhibited leverage on the dependent variable. To mitigate biasing of the regression estimates, both Model 1 and Model 2 include the use of robust standard errors. The coefficients in Model 1 and Model 2 are presented as incident rate ratios, and the goodness-of-fit statistics indicate Model 2 is the best fitting model.

Results from Model 2 indicate unaccompanied children from Guatemala, compared to unaccompanied children from other countries, experience 22.5% lower estimated adversity at their time of discharge from long-term foster care (IRR = 0.77, 95% CI: 0.61, 0.97, $p < .05$),

holding other covariates constant. Each additional month in care is associated with a 2.4% increased estimated adversity for unaccompanied children exiting long-term foster care (IRR = 1.024, 95% CI: 1.00, 1.04, $p < .05$), holding other covariates constant. Results indicate the effect size of maltreatment history is larger than other covariates. Specifically, results indicate a history of sexual abuse, compared to no history of sexual abuse, is associated with 3.5% increased risk of adversity at time of discharge (IRR = 1.35, 95% CI: 1.03, 1.77, $p < .05$), holding other covariates constant. Finally, history of neglect, compared to no history of neglect, is associated with more than two times the estimated risk of adversity at time of discharge (IRR = 2.073, 95% CI: 1.686, 2.547, $p < .000$), holding other covariates constant.

Table 12. Estimated Coefficients for Significant Incident Reports (SIR) for Unaccompanied Children Discharging from Long-Term Foster Care

Significant Incident Reports	Model 1 IRR (CI)	Model 2 IRR (CI)
<i>Gender (male)</i>	1.28 (0.99 – 1.66)	1.28 (0.99 – 1.66)
<i>Age at Discharge</i>	0.99 (0.96 – 1.02)	
<i>Country of Origin</i>		
Guatemala	0.77* (0.61 – 0.98)	0.77* (0.61 – 0.97)
<i>Months in Care</i>	1.02** (1.00 – 1.04)	1.02* (1.00 – 1.04)
<i>History of Neglect</i>	2.06*** (1.67 – 2.53)	2.07*** (1.68 – 2.54)
<i>History of Sexual Abuse</i>	1.36* (1.03 – 1.81)	1.35* (1.03 – 1.77)
<i>History of Physical Abuse</i>	0.94 (0.68 – 1.30)	
<i>History of Verbal Abuse</i>	0.26 (0.06 – 1.06)	0.26 (0.06 – 1.06)
<i>History of Substance Abuse</i>	0.97 (0.66 – 1.43)	
<i>N</i>	204	204
<i>AIC</i>	784.32	778.81
<i>BIC</i>	819.86	804.66

Notes. The analyses were conducted using imputed data. Unstandardized estimates are presented with confidence intervals in parentheses. Significance levels are denoted as * $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

The results of this study offer important considerations for how the cumulative risk framework and life course theory can explain the suffering of children in the context of forced migration, particularly those with histories of maltreatment prior to migration. These findings align with previous scholarship that identifies risk factors that impede the resilience of children and poses a risk to their wellbeing (Crea, Barth, Guo, & Brooks, 2008; Hussey, Falletta, & Eng,

2012; Turner, Finkelhor, & Ormrod, 2006). The cumulative risk framework helps explain how unaccompanied children's previous life experiences, such as neglect and sexual abuse, are associated with later levels of adversity in long-term foster care and possible complications with integration into resettlement communities. It is also important to remember that each child in the sample experienced a migration journey to the US from foreign countries, including El Salvador, Honduras, Guatemala, and others. While little is known about the nature of their migration journey, previous research suggests unaccompanied children are exposed to myriad risks during the journey including sexual trafficking (UNICEF, 2016). Given that each unaccompanied children in the sample experienced this migration journey, a cumulative risk framework suggests such risk poses a threat to later functioning. However, the data available in the current study did not allow controlling for possible risks experienced during a child's migration, and this is an important area of future research to consider.

One of the main contributions of this study is that a history of neglect significantly predicts experiencing significant incidents while in US foster care. Unaccompanied children with a history of neglect experience more than two times the estimated risk of adversity at their time of discharge from long term foster care. Importantly, this finding holds when controlling for other types of maltreatment including history of sexual abuse, history of physical abuse, and history of verbal abuse. This finding is congruent with previous literature that explored the effects of maltreatment on children in domestic foster care (Gypen, Vanderfaeillie, De Maeyer, Belenger, & Van Holen, 2017; Malinosky-Rummell & Hansen, 1993; Springer et al., 2007), and with findings that the experience of violence in countries of origin for unaccompanied children is related to changing placements while in foster care (Crea et al., 2017). As significant incidents can impede an unaccompanied child's integration into US communities, history of neglect

appears to be a potential risk factor for integration for unaccompanied children in US communities.

In addition to history of neglect, a second main contribution of this study is clarifying the association between sexual abuse and adversity. Unaccompanied children with a history of sexual abuse experience 3.5% increased risk of adversity at time of discharge, while controlling for other types of maltreatment. This finding is aligned with a large body of literature that identifies the impact of child sexual abuse on a range of adult functioning including increased psychopathology, decreased self-esteem, and relationship difficulties (Mullen, Martin, Anderson, Romans, & Herbison, 1996). This finding also complements more contemporary research that continues to examine the impact of child sexual abuse on a range of adult functioning (Adams, Mrug, & Knight, 2018).

An important context of this finding is that 80% of unaccompanied children who experienced a history of sexual abuse in this study are male. This context is important, given the growing body of research that indicates the healing experiences for male survivors of child sexual abuse is unique. For example, Easton (2014) found that adhering to masculine norms (e.g. winning, seeking emotional control, risk-taking behavior) and childhood adversities including experiencing physical abuse or witnessing domestic violence are both associated with mental distress (e.g. depression, anxiety, suicidal ideation) in adult male survivors of sexual abuse.

Unaccompanied children from Guatemala experienced significantly less adversity in foster care compared to other countries of origin, specifically El Salvador, Honduras, and Guatemala. This finding is aligned with previous scholarship that highlights differences in mental health symptomology by country of origin for unaccompanied refugee minors (Seglem, Oppedal, & Raeder, 2011). There was no significant association between migrating from El

Salvador or Honduras and subsequent experience of adversity. One possible explanation for this finding is the unique cultural context of Guatemala. Specifically, unaccompanied children from Guatemala typically speak indigenous languages other than Spanish, complicating their ability to navigate cultural norms and expectations in the US. Moreover, research indicates unaccompanied children from Guatemala may encounter difficulty with accessing community resources due to cultural and language barriers, possibly complicating efforts to integrate into US communities (Schapiro, Gutierrez, Blackshaw, & Chen, 2018).

The apparent variability in significant incidents by country of origin is important in that it suggests the needs of unaccompanied children, specifically from Guatemala, should be met with tailored supports and services to facilitate integration. This finding also raises important questions regarding the apparent protective nature (e.g., experiencing significantly fewer incidents in long term foster care) for unaccompanied children from Guatemala that should be addressed with future research. In addition, given the small sample size in the current study, future research should include larger sample sizes to assess effect sizes with more precision.

An additional main finding of the study is the association between a child's length of stay in foster care and experiencing more adversity. This finding is at odds with previous research that suggests longer stays in foster care are associated with positive outcomes for youth in terms of independent living skills, specifically employment and education outcomes (Courtney & Dworsky, 2006; Hook & Courtney, 2011). However, this finding complements existing research that suggests longer stays in foster care are associated with adversity, specifically health and mental health needs (Sullivan & van Zyl, 2008).

There are some unique characteristics of unaccompanied children that may explain this finding and its discrepancy with existing research with youth in domestic foster care. First,

research indicates 81% of unaccompanied children apprehended at the border report leaving their country of origin to reunite with a family member already in the US (UNHCR, 2014). Longer stays in foster care, and delaying what was an anticipated reunification with a caregiver, could explain the higher likelihood of experiencing adversity. Second, unaccompanied children in long-term foster care may not have legal status to remain in the US and are exposed to a labyrinthine immigration system that could also explain a higher likelihood of experiencing adversity while in care.

Limitations

The present study offers a unique and exploratory empirical review of the factors associated with experiencing significant incidents for unaccompanied children living in long-term foster care in the US. However, important limitations exist that should guide interpretation of the results. First, the data are derived from a national non-profit organization that serves and advocates for unaccompanied children and therefore may not be generalizable to unaccompanied children served by other organizations, or who receive no services. Second, the results of the study may not be generalizable to unaccompanied children from countries not represented in the current sample. Third, the dependent variable, adversity, is a proxy variable based on the number of significant incidents an unaccompanied child experiences while in long-term foster care. Therefore, each reported incident is weighted the same regardless of the seriousness of the incident, and scores for unaccompanied children may thus be inflated or underreported. In addition, the dependent variable is a non-standardized measure, and excludes any measures of validity or reliability. The dependent variable of significant incident reports does not control for country-specific trauma histories, including individual or collective exposure to trauma. When recorded by caseworkers directly from an unaccompanied child in care, information is collected

in the unaccompanied child's primary language, possibly leading to biased results due to language barriers. A limitation of the maltreatment variables is that the data do not specify if the maltreatment occurred while the unaccompanied child was in long-term foster care or prior to arrival to the US.

Additional limitations in the current study are related to the small sample size. Specifically, the substance abuse variable was coded as a dichotomous variable by LIRS, such that important characteristics related to the nature of the substances used by unaccompanied children prior to migrating to the US were unavailable. By being coded as a dichotomous variable, the substance abuse measure used in this study does not assess frequency or symptoms of substance abuse experienced by unaccompanied children. Finally, the self-report nature of the data may possibly lead to biased results.

Conclusion

The main findings of this exploratory study are that a history of neglect, history of sexual abuse, and longer lengths of stay in long term foster care are associated with greater adversity for unaccompanied children in long-term foster care. In addition, unaccompanied children from Guatemala, compared to unaccompanied children from other countries, experience less adversity while in long-term foster care.

Such factors potentially pose a threat to the integration of unaccompanied children living in the US. Research clearly documents the challenges native-born US children face when living in foster care (Barth, 1990; Gypen et al., 2017), and support existing research on predictors of placement changes for unaccompanied children in US foster care (Crea et al., 2017).

Despite the limitations, many implications for future research can be considered. First, more precision is needed to understand the specific types of maltreatment and substance use, among

other risk factors, that pose a potential threat to functioning for unaccompanied children.

Understanding the association between different types of maltreatment and unaccompanied children outcomes can inform more precise development of social work interventions. Second, future scholarship should include the use of standardized measures of mental health outcomes to better understand how risk factors are associated with specific mental health symptomology. Future research should also include a closer examination of an unaccompanied child's migration journey, to shed light on the experiences pre, during, and post migration. Such data will enable researchers to have a more comprehensive understanding of the lived experience of unaccompanied children. Immediate steps in the program of research on unaccompanied children include using standardized measures for mental health outcomes of unaccompanied children and using qualitative data to add a textured dimension of the lived experiences of unaccompanied children who are resettled in the US.

In addition to research implications, the results of the study offer preliminary considerations for practice. First, the results highlight the universal experiences and effects of child neglect that are not different based on an unaccompanied children's country of origin. Practitioners working with unaccompanied children in the US should use clinical assessments to better understand the nature of neglect that unaccompanied children experience prior to migrating to the US. Knowing that neglect heightens an unaccompanied child's risk for experiencing significant incidents in long-term foster care can help practitioners consider interventions that help mitigate significant incidents while in long-term foster care. With a more proactive approach to treatment planning, the results of this preliminary study can be used to support the integration of unaccompanied children in long-term foster care, despite their prior exposure to neglect.

Social work is a profession well poised to support unaccompanied children and bring to light the significant challenges they face as they seek safety and refuge. This exploratory study offers a glimpse of the unique challenges this vulnerable group faces and the suffering they experience, and offers clear directions for future research to continue building knowledge of the needs of unaccompanied children and how interventions can best support their health and wellbeing.

Chapter IV: Clocking In: Employment outcomes for unaccompanied refugee minors exiting care in the United States

Introduction

In 2016, there were nearly 1 in 100 people worldwide, or more than 60 million people, forcibly displaced from their homes because of various factors including violence, war, natural disasters, and severe poverty – the greatest number of individuals forcibly displaced from their homes since the end of World War II (Connor & Krogstad, 2016). In 2015, 65.3 million people were forcibly displaced from their homes because of violent conflict or natural disaster, and 21.3 million people were living as refugees. In addition, over half of individuals living as refugees are under age 18 (United Nations High Commissioner for Refugees, [UNHCR], 2016). The United States (US) has accepted over 3 million refugees since 1975, and most recently accepted 84,994 refugees for resettlement in 2016. However, the number of refugees resettled in the US dropped to 53,716 refugees in 2017 (Refugee Processing Center, 2017).

In recent years, increasing numbers of unaccompanied children have been apprehended at the US/Mexico border after migrating from the Central American countries of El Salvador, Honduras, and Guatemala (hereafter referred to as the Northern Triangle). The numbers of unaccompanied children have risen from 24,668 referrals for unaccompanied children to the US Office of Refugee Resettlement (ORR) in 2013 to 57,496 referrals in 2014 (Administration for Children and Families, 2015). Little empirical research has been conducted to understand the needs of unaccompanied children from the Northern Triangle after their arrival to the US, or how services might be developed to support these needs. As more unaccompanied children enter the US and begin the process of the reunifying with family members and attempting to adjust their immigration status, important questions are raised regarding how best to ensure the health and

wellbeing of this vulnerable population as they integrate into US communities. This study examines or analyzes one life domain – employment – that can be critical to unaccompanied children’s stabilization and integration in US society.

Employment and Immigrant Integration

The integration of immigrant populations almost invariably includes discussion on how best to integrate immigrant skill and talent into the US economy. One pathway for this integration is through securing and maintaining stable employment. Understanding this pathway and removing barriers to immigrant integration in the economy is particularly important given that as recently as 2009, 1 in 6 workers in the US economy were immigrants (Terrazas, 2011). While research indicates that compared to native-born US citizens, immigrants in the US have low rates of unemployment, they are more likely to be employed in low wage jobs that do not require the full use of their skills (Terrazas, 2011).

Refugees are a distinct population of immigrants in the US that exhibit unique challenges to their integration in the US economy. A major challenge for refugees is their experience of traumatic events and subsequent symptoms of post traumatic stress disorder, depression, and anxiety that impedes their functioning in the workplace (Kirmayer et al., 2011). In a study of refugees living on the US-Mexico border, Paat and Green (2017) found that while pre-migration exposure to trauma presented as a risk factor, respondents consistently reported that availability of employment opportunities in the US were protective factors that enhanced their ability to integrate into communities.

Much of the literature base on employment outcomes for refugees and immigrants has focused on adults; research on how unaccompanied children in the US navigate employment opportunities is vastly underdeveloped. In FY2017, the majority of unaccompanied children

referred to the URM program for services were between ages 15 and 17 (69%), with almost one-third of UC (32%) being age 17 at their time of admission (ORR, 2018a). Examining employment outcomes is an important area of new research with unaccompanied children in the US, particularly because the majority of unaccompanied children are older and closer to entering employment settings. Understanding barriers and facilitators to employment can unearth new ways of supporting unaccompanied children as they strive to gain stable employment and increase their integration into US communities, similar to other immigrant populations (Terrazas, 2011). Research on vulnerable native born adolescents in foster care in the US highlights the importance of employment during the transition from adolescence to young adulthood.

Foster Care and Employment Outcomes

Education is an important factor associated with stable employment and higher wages (Okpych & Courtney, 2014). However, research on education and employment outcomes for unaccompanied children is lacking. One study examined the educational attainment of unaccompanied children exiting the Unaccompanied Refugee Minor (URM) program in the US (Crea, Hasson III, Evans, Cardoso, & Underwood, 2017), and found that longer time spent in care was associated with greater educational attainment. This study also found that permanent legal status was associated with greater high school graduation rates. Yet, significant variation in educational attainment emerged between children from the Northern Triangle and other countries of origin, as well as within these countries (Crea et al., 2017b). No other studies appeared to examine educational outcomes for unaccompanied children in US foster care.

By comparison, however, a wide body of research has been conducted in the area of supporting young adults as they age out of domestic US foster care. This research clearly documents the importance of maintaining employment in the transition out of care for native-

born US children exiting foster care (Reilly, 2003). In addition, Naccarato, Brophy, and Courtney (2010) evaluated employment outcomes for youth exiting foster care and found the wages for youth exiting care were not enough to lift them out of poverty, leaving them economically unstable. Furthermore, research suggests difficulty with securing and maintaining employment for youth aging out of care can persist until age 30 (Stewart, Kum, Barth, & Duncan, 2014).

There is an established body of research on employment outcomes for US-born youth exiting the foster care system. For example, Dworsky and Gitlow (2016) completed a cross sectional study examining the employment outcomes of 1,943 youth who recently exited the foster care system. Results of logistic regression indicated that a variety of factors decrease the odds of being employed after exiting the foster care system, including being African American, compared to White or Latino, having more children at the time of exiting foster care, running away from foster care placements more frequently, and being involved in both child welfare and juvenile justice systems at the time of discharge (Dworsky & Gitlow, 2016).

For youth exiting foster care, education appears to be a particularly important investment for later positive employment outcomes. In a study comparing employment outcomes for youth exiting foster with a nationally representative sample of youth in the United States, Okpych and Courtney (2014) found that youth exiting foster care earn approximately half as much income and have an employment rate 20 points lower than youth from general population. Furthermore, this research indicates there is a steady increase in earnings for youth exiting foster care as their education level increases. Youth exiting foster care with a high school diploma, compared to no education credential, experience higher earnings. Youth exiting foster care with a GED, compared to no education credential, experience no benefit in earnings or rates of employment.

Youth exiting foster care with some college, 2 year degrees, and 4 year degrees experience higher earnings and a higher likelihood of being employed, compared to youth without a high school credential (Okpych & Courtney, 2014). This body of research highlights clear benefits of education attainment on employment rates and earnings for youth exiting foster care.

Theoretical Framework

The life course theoretical perspective guides this study. Life course theory is a perspective that emphasizes “the notion that changing lives alter developmental trajectories” (Elder, Jr., 1998, p. 1). An important principle of the life course theory is the principle of historical and geographical context (O’Rand, 2009). Individuals are born in specific cohorts, or generations, that contain various opportunities that are age specific. This concept of life course theory has been studied in the context of child maltreatment. Ireland, Smith, and Thornberry (2002) examined the impact of child maltreatment on substance use and delinquency in later life. This research looked at maltreatment that occurs in distinct historical contexts and the extent to which maltreatment in these historical contexts is associated with later substance use or delinquency. The historical contexts include maltreatment that occurs in childhood (ages 0 – 11), adolescence (ages 12 – 17), and persistent maltreatment (maltreatment in both childhood and adolescence). Maltreatment that occurs in adolescence only and persistent maltreatment are both associated with substance use and delinquency in later life (Ireland et al. 2002).

The geographic location of an individual helps explain the resources available to them as they progress throughout life stages (O’Rand, 2009). The concept of geographic location has been used in research on the effects of disorganized neighborhoods on exposure to violence, trauma symptoms, and social relationships experienced by at-risk youth (Butcher, Galanek, Kretschmar, & Flannery, 2015). Neighborhood disorganization is operationalized as the

percentage of female headed households, individuals above 25 years old with less than a high school diploma or equivalent degree, renter occupied housing units, unemployed individuals, and families who receive public assistance benefits. Butcher and colleagues (2015) found that neighborhoods with a higher percentage of disorganization are associated with higher levels of exposure to violence, and higher levels of exposure to violence are associated with trauma symptoms. This study highlights the importance of accounting for geographic contexts (e.g. neighborhoods) when examining the lived experiences of at-risk youth. This study will use participant age and participant country of origin to help explain how historical (e.g., age) and geographic (e.g., country of origin) contexts explain the likelihood of participants having stable employment at their time of discharge from the URM long term foster care program.

In addition to the historic and geographic contexts, the principle of human agency will be used to guide the study. Human agency refers to the concept that individuals make decisions that are contingent on social constraints (O'Rand, 2009). Human agency has been used in research to understand migration and mental health in a sample of Asian immigrants in the US (Gong, Xu, Fujishiro, & Takeuchi, 2011). Gong and colleagues (2011) measured human agency by voluntariness and the reasons for migrating to the US. Voluntariness was measured with two dichotomous variables. The first asked if the participant migrated to the US because they wanted to (1=yes; 0=otherwise). The second variable asked if the participant carefully planned their move to the US (1=yes; 0=poorly planned/not planned at all). Reasons for migrating to the US was measured with nine questions asking participants to rate the importance of different reasons (e.g. employment, education, family reunification) to migrate to the US. Gong and colleagues (2011) found that immigrants with multiple strongly identified reasons to migrate were less likely to experience psychiatric distress in the previous 12 months, compared to immigrants

without clear goals for migrating to the US. Adolescent immigrants who migrated without clearly identified reasons, compared to immigrants age six years old or younger, exhibited higher levels of psychiatric distress. Immigrants who arrived to the US as adults (i.e. age 25 or older), were less likely to exhibit depressive symptoms (Gong et al., 2011).

In the context of unaccompanied children who have migrated to the US, one major social constraint is their immigration status and navigating the US immigration system. This study will examine how an unaccompanied children's immigration status, specifically whether or not a youth has legal permanency (e.g., have a Green Card or are a US citizen), is associated with employment status at their time of discharge from long term foster care. Legal status is a major social constraint that can be used to understand how unaccompanied children navigate gaining employment during a specific life stage. Moreover, the immigration system is a social constraint that may "restrict and channel the expression of agency" (O'Rand, 2009, p. 14) for unaccompanied children in the US as they navigate employment settings. Examining how immigration status is associated with employment outcomes can provide a helpful understanding of the constraints unaccompanied children experience at a specific life stage, and how it may affect their agency.

While there is much research that suggests transitioning out of foster care is associated with various life stressors for native-born US youth, including financial strain (Naccarato et al., 2010), little is known of the employment outcomes for unaccompanied children exiting foster care. This study addresses this gap in research by exploring the employment outcomes for unaccompanied children exiting the Unaccompanied Refugee Minor (URM) program in 2015. In light of the recent dramatic rise in youth arriving from the Northern Triangle countries of El Salvador, Honduras, and Guatemala, the study will focus on employment outcomes specifically

for these children, compared to those from other countries of origin. The following research questions guide the proposed paper:

- (1) To what extent is an unaccompanied child's country of origin associated with employment outcomes?
- (2) To what extent is length of stay in the URM program associated with the employment status of unaccompanied children in the URM program?
- (3) To what extent is an unaccompanied child's legal status associated with employment status at time of discharge from the URM program?

Methods

Sampling Strategy

The sample includes 190 unaccompanied children placed in long-term foster care and semi-independent living facilities in the Unaccompanied Refugee Minors (URM) program under the Office of Refugee Resettlement (ORR) ($n=190$). The data in the current study were collected by Lutheran Immigration and Refugee Services (LIRS), one of two major non-profits in the United States that focuses on supporting resettlement for unaccompanied children, and includes all children who discharged from the long-term foster care program in 2015. Table 13 (see below), includes demographic statistics. 148 of the youth in the sample were male (77.49%), the mean length of stay in foster care was 35.30 months, and the mean age of a youth at discharge was 19.80 years old. 7.33% of the youth arrived from El Salvador, 17.28% from Guatemala, and 28.27% from Honduras. In addition, youth in the sample arrived from the following countries: 16 children (8.29%) were from Burma/Myanmar; 12 children (10.88%) were from Democratic Republic of Congo; 8 children (4.15%) were from Somalia; 5 children (2.59%) were from Eritrea; 3 children (1.55%) were from Nepal; 2 children each (1.04%) were from the respective

countries of Afghanistan, Ghana, India, Iran, Iraq, Sudan, and Tanzania; and 1 child each (0.52%) was from one the following countries: Belize, China, Congo, Haiti, Ivory Coast, Kenya, Liberia, Pakistan, Rwanda, and Thailand.

Measurement and Data Collection

The dependent variable in the study is employment, measured as a 3 item categorical variable (1=employed full time, 2=employed part time, 3=not employed). Length of stay in foster care was measured as a continuous variable of the number of months a youth was in the URM program. Age is a continuous measure of the number of years of age a youth was at the time of discharge from the URM program. Gender is a categorical variable (1=male, 0=female). Country of origin was measured as 3 dichotomous variables (1=El Salvador, 0=Other countries; 1=Guatemala, 0=Other countries; 1=Honduras, 0=Other countries). Legal permanency is measured as a dichotomous categorical variable (1=UC has a Green Card or US citizenship, 0=Other Legal Status). The majority of children in the sample had a Green Card upon exiting the URM program ($n=122$) and a small number are US citizens ($n=3$). Other legal statuses include Legal Permanent Resident ($n=27$) and Special Immigrant Juvenile Status ($n=20$).

Analysis Procedures

Independent sample t-tests and chi-square analyses were conducted to explore bivariate relationships between employment outcomes and associated independent variables. A multinomial logit regression model was created to explore factors that predict the employment status for unaccompanied children upon discharge from the URM program (full time employment, part time employment, and not employed). Odds ratios were calculated to represent the strength and direction of various predictors and how they relate to employment status for unaccompanied children exiting the URM program. Various demographic variables included in

the model as covariates are gender, length of time (months) in the URM program, age of unaccompanied children at admission to the URM program (in years), legal permanency (whether or not the youth currently holds a Green Card), and country of origin (El Salvador, Honduras, Guatemala). Multicollinearity was tested using the Variance Inflation Factor (VIF) statistics, and no concern was indicated (maximum VIF=1.69, mean VIF=1.28).

Following the use of the multinomial logit regression to understand how employment is associated with various independent variables, the Independence of Irrelevant Alternatives assumption (IIA) was tested. Results from the Hausman test reveal the IAA was violated. Closer examination revealed the categories of Full Time Employment and Part Time Employment in the dependent variable, Employment, should be combined (Full Time Employment & Part Time Employment=1, Unemployed=0). This recoding led to the use of one binomial logit regression model to examine how employment is associated with gender, age at discharge, length of stay, legal status, and country of origin. This study presents results from the binomial logit regression model, and analyses were conducted using STATA 15 SE software. Missing data in the sample was minimal. One case was missing for age (0.52%) and 1 case was missing for legal permanency (0.52%). Listwise deletion was used to manage missing data, which aligns with recommendations for minimal missing data (i.e. < 5%) (Schafer, 1999). The study protocol was approved by the Boston College Institutional Review Board.

Results

One-way ANOVA tests indicated significant differences across employment status and months in care and age at time of discharge (see Table 13). Specifically, a longer length of stay is associated with being employed part time at discharge ($p<.001$), and older unaccompanied children are more likely to be employed part time at discharge ($p<.001$), compared to employed

full time or not employed. Chi-square analyses indicate significant differences across employment status and gender and country of origin, respectively. Specifically, male unaccompanied children are more likely to be employed full time (87.50%) compared to female unaccompanied children (12.50%) ($p < .05$). Unaccompanied children from other countries are more likely to be employed part time (51.11%) compared to unaccompanied children from El Salvador, Guatemala, or Honduras (48.89%) ($p < .05$).

Table 13 – Descriptive Statistics & Differences in Employment Status

	Total (n=190)	Employed FT (n=72)	Employed PT (n=45)	Not Employed (n=74)
	% or <i>M(SD)</i>	% or <i>M(SD)</i>	% or <i>M(SD)</i>	% or <i>M(SD)</i>
<i>Months in Care</i> ***	35.30 (22.28)	40.21 (21.89)	42.09 (23.46)	26.44 (18.73)
<i>Age at Discharge</i> ***	19.80 (1.83)	19.9 (2.38)	20.55 (1.33)	19.25 (1.22)
<i>Gender (male)</i> *	77.49	87.50	71.11	35.81
<i>Country of Origin</i>				
El Salvador**	7.33	7.14	7.14	85.71
Guatemala	17.28	39.39	15.15	45.45
Honduras	28.27	44.44	20.37	35.19
Other*	47.12	37.78	31.11	31.11

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

Results from two binomial logit models are provided in Table 14. Model 1 is the full binomial logit regression model. Results from Model 1 indicate each addition month in care increases the odds of a unaccompanied children being employed full time or part time by 3.1% (OR=1.031, CI=1.010 – 1.053, $p < .01$), holding all other variables constant. Results also indicate the odds of being employed full time or part time are 90.4% lower for unaccompanied children from El Salvador, compared to unaccompanied children from other countries (OR=0.096, CI=0.018 – 0.512, $p < .01$), holding all other variables constant. A reduced model (Model 2, Table 2) was constructed with only significant and marginally significant covariates included.

Goodness of fit statistics reveal a difference in BIC of 14.50 strongly supports the reduced model.

Results from the reduced model (Model 2, Table 14) indicate each additional month in care increased the odds of a UC being employed part time or full time by 3.2% (OR=1.032, CI=1.014 – 1.050, $p < .001$), holding the variables legal status and El Salvador as a country of origin constant. Results in the reduced model also indicate the odds of being employed part time or full time were 92% lower for unaccompanied children from El Salvador, compared to unaccompanied children from other countries (OR=0.080, CI=0.015 – 0.411, $p < .01$), holding the variables months in care and legal status constant.

Table 14 – Determinants of Binomial Logit Regression Models

	Model 1	Model 2
	FT/PT Employment	FT/PT Employment
	Odds Ratio (CI)	Odds Ratio (CI)
<i>Months in Care</i>	1.031** (1.010 – 1.053)	1.032*** (1.014 – 1.050)
<i>Age at Discharge</i>	1.129 (0.931 – 1.368)	
<i>Gender (male)</i>	1.798 (0.817 – 3.956)	
<i>Legal Permanency (Green Card Holder/US Citizen)</i>	1.806 (0.906 – 3.600)	1.731 (0.883 – 3.394)
<i>Country of Origin (Other)</i>		
El Salvador	0.096** (0.018 – 0.512)	0.080** (0.015 – 0.411)
Guatemala	0.925 (0.369 – 2.316)	
Honduras	1.471 (0.631 – 3.428)	
N	190	190
Constant	0.024	0.130
AIC	227.44	225.91
BIC	253.42	238.92

*p<.05, **p<.01. ***p<.001

Notes: 95% confidence intervals in parentheses, Model 1 is the full binomial logit regression model, Model 2 is the reduced binomial logit regression model

Discussion

These findings suggest unaccompanied children in the URM program are exposed to supports that are associated with securing full time employment. The results do not indicate gender, or being male, is associated with higher odds of being employed full time, compared to female unaccompanied children. This finding is at odds with previous research that suggests

female unaccompanied children are more likely to struggle with various life domains, including mental health (Vervliet, Lammertyn, Broekaert, & Derluyn, 2014; Oppedal & Idsoe, 2015).

The reduced model for the binomial logit regression model (Model 2, Table 14) indicates the only covariates significantly associated with full time employment or part time employment at time of discharge is the number of months in care at time of discharge and unaccompanied children who are from El Salvador. This finding suggests unaccompanied children who are in the URM program longer periods of time have higher odds of discharging with part time or full time employment. One possible explanation for this finding is that unaccompanied children who are in care longer are also able to complete higher levels of education. This is aligned with previous scholarship documenting the association between education attainment and employment rates and earnings (Okpych & Courtney, 2014). In addition, this finding is aligned with research that indicates longer lengths of stay in foster care are associated with higher educational attainment (Crea et al., 2017). However, additional research is needed to better understand nuanced factors that contribute to the positive effect of being in the URM program for longer lengths of stay.

Interestingly, legal status, specifically having a Green Card at time of discharge, was not significant with any employment outcomes in the binomial logit models. This finding is interesting due to previous research that suggests not having legal status is associated with unstable employment (Donato, Aguilera, & Wakabayashi, 2005), whereas results in the current paper indicate having legal status is also not associated with stable employment status. The discrepancies in the findings for legal status suggest more research is needed on the effects of legal status on employment for unaccompanied children.

Results from the analyses include varied outcomes for the hypotheses that guide the paper. Specifically, results of the binomial logit models partially support the first hypothesis, that

migrating from El Salvador, Honduras, or Guatemala, compared to other countries, is associated with higher odds of being unemployed at time of discharge from the URM program. The results suggest unaccompanied children from El Salvador have significantly lower odds of being employed full time or part at time of discharge. Previous research suggests unaccompanied children from El Salvador report migrating to the US for economic reasons at lower rates than unaccompanied children from Guatemala or Honduras (UNHCR, 2014), possibly explaining why the results in the current study indicate unaccompanied children from El Salvador exhibit lower odds of being employed full or part time, compared to unaccompanied children from other countries.

Results support the second hypothesis, that length of stay is associated with being employed full time and part time at time of discharge. Specifically, results from the reduced binomial logit model suggest a longer stay in care is associated with being employed full time or part time at time of discharge. The results of the analyses do not support the third hypothesis, that male unaccompanied children, compared to female unaccompanied children, have higher odds of being employed full time or part at time of discharge.

The results of the analyses do not support the fourth hypothesis, that having a Green Card is significantly associated with being employed full time or part time, as analyses exhibited no relationship between legal status and employment status at time of discharge. Finally, results do not support the fifth hypothesis guiding the study, that higher age at time of discharge is associated with higher odds of being employed full time or part time at time of discharge.

The findings of the study provide important implications for shaping social work practice with unaccompanied children along with shaping continued debate on immigration reform. First, the results clearly indicate that unaccompanied children from El Salvador, compared to

unaccompanied children from other countries, have lower odds of being employed full or part time at time of discharge. This finding can help social workers critically examine the needs of unaccompanied children from El Salvador upon their arrival to the US and more closely examine factors that may explain their lower rates of full or part time employment. A second major implication from the results of the study can help direct immigration policy reform. The finding that each additional month in care is associated with higher odds of being employed part time or full time at time of discharge suggests the URM program provides levels of support for unaccompanied children to integrate into communities. Continued debate about immigration policy reform should use this result to advocate for enhanced support for unaccompanied children in the URM program, and not limiting their lengths of stay due to potential budgetary constraints. Because extended lengths of stay in the URM program are associated with higher odds of unaccompanied children being employed part time or full time at time of discharge, along with other positive outcomes such as education (Crea et al., 2017), then policy makers should view the URM program as an investment in helping unaccompanied children become meaningful participants in the economy and members of the community.

Conclusion

Although this paper provides a unique examination of unaccompanied children from the Central American countries of El Salvador, Honduras, and Guatemala and their employment outcomes, there are important limitations to consider. First, the data used in this study are from an administrative data set at a non-profit, were not randomly sampled, and are not representative of all unaccompanied children in the US. Second, the study is cross sectional in design, and only examines the point of time an unaccompanied child discharged from the URM program, thus limiting the ability to identify causality. Third, the analyses indicate a binomial logit regression

model, with employed full time and part time combined as the dependent variable, is the best fitting model for the data. Because this model included part time and full time employment as the dependent variable, it is not possible to delineate if the covariates are associated with full time or part time employment. Relatedly, other than legal status, the binomial regression model does not include control variables that might help explain other dimensions of integration for unaccompanied children. For example, research indicates education is an important marker for integration (Ager & Strang, 2008), however this study does not include education status as control variable, limiting the scope of integration for unaccompanied children to the realm of employment. Finally, a major limitation in the study is the limited number of covariates available in the administrative data set.

However, these limitations highlight important areas for future research. First, future studies should include random sampling methods to ensure a representative sample of unaccompanied children is included in analyses. Second, future studies should be longitudinal in nature, to allow for a closer examination of causality and changes over time. Third, future studies should include enhanced measurements of covariates to allow for a more in depth understanding of what factors contribute to an unaccompanied child's employment status at their time of discharge from the URM program.

Unaccompanied children experience profound hardships prior to and during their forced migration, and they deserve stability and opportunity during their placement in the US. Part of this opportunity is the ability to gain and sustain employment. This study provides compelling evidence that can help guide the implementation of social work interventions to support this vulnerable population as they adjust to living in the US and experience the dynamic process of integration. In addition, the results of this study can guide policy debates and developments to

ensure future immigration reform meets the needs of the most vulnerable individuals seeking refuge in the United States.

Chapter V: From the Margins to Main Street and Beyond: A Beginning Understanding of Integration for Unaccompanied Children in the United States.

In 1964, President John F. Kennedy posthumously observed, “every American who ever lived, with the exception of one group, was either an immigrant himself or a descendent of immigrants” (Kennedy, 1964, p. 2). Indeed, the process of people arriving at and moving beyond US borders is ingrained in the fabric of the country, and understanding immigration is critically important to understanding different sociopolitical aspects of US culture (Kennedy, 1964). Immigration in the US has occurred in varied contexts, including people escaping famine, poverty, war, political corruption, or natural disasters. The narrative that encompasses the broader immigrant experience in the US is grounded on hope for a better future and driven by a faith in the opportunities in the US. This broad narrative is what propelled Irish families in 1850 to escape famine and Norwegian families to seek opportunity in the American West in the 1880s (Kennedy, 1964). This hope and faith also infuses the immigrant narrative in contemporary American society, including the arrival of rising numbers of unaccompanied children who claim asylum in the US.

More than 290,000 unaccompanied children have arrived to the US border since 2012, and since 2013, more than 90 percent of unaccompanied children have arrived from El Salvador, Guatemala, or Honduras (ORR, 2018a). Unlike other immigrant groups, unaccompanied children arriving to the US in recent years are situated in particularly vulnerable places, often on the margins of society within their countries of origin. This marginalization is evidenced by the alarming rates of exposure to violence and poverty that influence migration to the US (UNHCR, 2014), along with evidence of sexual and financial exploitation and detention that occur during

migration journeys (UNICEF, 2016). However, a gap exists in understanding the experiences of integration for unaccompanied children. Addressing this gap is particularly important given the growing numbers of unaccompanied children arriving to the US and the shifting political climate influencing immigration policy in the US.

Characteristics of Integration

Characteristics of integration that pertain to immigrants in the US have been broadly studied in the US, including important life domains such as employment, housing, education, and health (NASEM, 2015). Some research has examined integration of specific immigrant groups, including refugees. Ager and Strang (2008) completed 62 semi-structured interviews in two separate refugee settlement locations – Islington in London, UK and Pollokshaws in Glasgow, UK – to identify key characteristics of integration as experienced by refugees in resettlement settings.

Through this study, using both qualitative data and secondary analysis of cross-sectional survey data, Ager and Strang (2008) arrived at a conceptual framework with four discrete categories that explain the core domains of integration: markers and means, social connection, facilitators, and foundation. Markers and means include four separate domains of life that not only “mark” the achievement of integration, but are also means that support the achievement of integration in resettlement settings. The four separate domains of markers and means are employment, housing, education, and health (Ager & Strang, 2008).

Markers and Means of Integration

Research in the context of the US identifies employment as one of the strongest facilitators of integration for immigrants in the US (NASEM, 2015), and Ager and Strang’s (2008) qualitative work with refugees in resettlement contexts in the UK align with this research.

Refugees encounter unique barriers to employment in resettlement settings, including under-employment as a result of not having documentation of skills or qualifications for a specific employment setting. Refugees and unaccompanied children encounter forced migration and shared experiences of adversity such as exposure to violence (UNHCR, 2014). Employment is an important marker, or indication, of integration as well as a mean, or facilitator, of integration for refugees. Because of the shared experiences of adversity that promote migration for refugee and unaccompanied children, employment can also serve as a marker and mean of integration, particularly for older unaccompanied children who are near the transition to adulthood. As the results of Study #3 in this dissertation indicate, certain characteristics of unaccompanied children impede employment outcomes, while other characteristics promote employment. Further discussion will disentangle these results to clarify the role of employment for unaccompanied children in the US.

Similar to employment, existing literature identifies education as a key characteristic of integration for immigrants in the US (NASEM, 2015). Integration of refugees is supported by education because of opportunities to learn skills that strengthen employment in resettlement communities. However, child refugees in the UK encounter barriers to education including lack of language support and problems in social settings such as bullying and racism (Ager & Strang, 2008). Research in the US is beginning to examine education outcomes for unaccompanied children. Crea and colleagues (2018) found that longer lengths of stay in the URM program are associated with higher education attainment. In addition, permanent legal status (holding a Green Card or being a US citizen) is associated with increased high school graduation rates, but not college enrollment. Finally, country differences in education outcomes were uncovered. Unaccompanied children from Guatemala, compared to unaccompanied children from other

countries, are more than eight times more likely to be enrolled in a k-12 education setting. Unaccompanied children from El Salvador, compared to unaccompanied children from other countries, are nearly five times as likely to be have a high school diploma at their time of discharge from the URM program. Unaccompanied children from Honduras, compared to unaccompanied children from other countries, are 76% less likely to be enrolled in college at their time of discharge (Crea et al., 2018b).

Along with education, health is a key marker and means for integration. Among these areas of research is the “immigrant paradox” (NASEM, 2015). Upon entering the US, immigrants exhibit better health outcomes compared to the US general population. Immigrants exhibit lower mortality rates from cancer and cardiovascular disease, and have fewer chronic health conditions or limitations. In addition, immigrants exhibit lower infant mortality rates. However, as immigrants integrate into US society, these differences in health outcomes fade, resulting in immigrants having mortality rates due to cancer and cardiovascular disease, infant mortality rates, and levels of chronic diseases at rates similar to the US general population. This dynamic of changing health outcomes is a paradox that research has struggled to explain (NASEM, 2015). In the context of refugees, both positive health conditions and access to healthcare services are markers and means of integration, as both characteristics of health allow for refugees to engage in the civic domain of resettlement communities (Ager & Strang, 2008). This dissertation focuses on mental health, specifically PTSD, as a potential barrier to integration. Symptoms of PTSD, including symptoms of intrusion, symptoms of avoidance, symptoms of changes in cognition or mood, and symptoms of reactivity, pose unique threats to integration in how they may manifest in unaccompanied children exhibiting isolating behavior that prevents engagement in resettlement communities (APA, 2013).

Social Connection and Integration

Ager and Strang (2008) suggest that three types of connection help facilitate the integration of refugees in resettlement communities: social bridges, social bonds, and social links. Social bridges are the connections established and maintained between refugees and citizens in a resettlement community. Social bonds are connections and relationships between refugee families that share similar cultural values and norms. Social links are connections between refugees and broader community supports, including government agencies. Together, the social connection characteristics offer a framework for understanding how refugees develop and maintain connections within refugee groups, across refugee groups and native-born groups, and between refugee groups and state structures such as government agencies. Each helps explain how integration is supported by a foundation of diverse relationships that refugees form as they navigate new social environments (Ager & Strang, 2008). The importance of social connection has been examined in existing research that identifies differences in mental health outcomes for unaccompanied children, compared to children who migrate with parents or caregivers (Derluyn & Broekaert, 2007). The results of this dissertation, specifically Study #2, help explain what factors might impede social connections for unaccompanied children in the US. For example, Study #2 sheds light on the factors that increase the risk of adversity – externalized behaviors, internalized behaviors, or victimization – that unaccompanied children are exposed to in long term foster care. This adversity can impede unaccompanied children’s functioning, including possibly impacting their ability to develop and maintain social connections.

The foundation of integration for refugees is the rights that accompany citizenship. Having the ability to fully participate in civic life, such as voting, allows for refugees to deepen

their ties to a resettlement community (Ager & Strang, 2008). For unaccompanied children in the US, the path to citizenship is complex with myriad barriers to legal permanency. For unaccompanied children who pursue legal relief from deportation by applying for asylum, the support of an attorney vastly improves the chances of being granted a stay of deportation. Almost half (47%) of unaccompanied children represented by an attorney are granted a stay of deportation, with 28% receiving deportation orders. When not represented by an attorney, more than 90% of children receive a deportation order (TRAC, 2017). The numbers of unaccompanied children pursuing legal relief without the aid of an attorney has grown in recent years. In 2015, 29% of unaccompanied children pursued legal relief without an attorney, and this percentage grew to 40% in 2016 and a concerning 76% of unaccompanied children in 2017.

The process of integration that refugees experience can be understood within a framework of core domains including markers and means, social connection, facilitators, and foundation. Markers and means of integration include employment, education, housing, and health. Social connection helps explain how refugees maintain relationships within their ethnic community in a resettlement setting, how they establish relationships with native born citizens, and how they develop relationships with state level organizations, including government agencies (Ager & Strang, 2008). Refugees and unaccompanied children experience similar adversities, such as exposure to violence, that promotes their migration to resettlement countries. Furthermore, this dissertation is guided by Ager and Strang's (2008) framework by examining mental health, factors associated with adversity, and employment outcomes. Together, these areas of research align with specific dimensions of integration for vulnerable immigrants including unaccompanied children.

A Framework for Unaccompanied Children and Integration in the United States

Guided by Ager and Strang's (2008) conceptual framework to understand integration, this dissertation used three studies to examine key characteristics of integration common to the immigrant experience in the US, including mental health, adversity, and employment outcomes (Ager & Strang, 2008; NASEM, 2015). Reliable access to health services is a key dimension of integration (Ager & Strang, 2008). For unaccompanied children, accessing health services includes being supported with tools that meet their unique cultural needs. In the context of mental health, there is a gap in understanding how the diagnostic criteria in the DSM-5 measure symptoms of posttraumatic stress disorder (PTSD) in immigrant populations, including unaccompanied children. The first study in this dissertation addresses this gap by examining rates of PTSD in a sample of unaccompanied children and the psychometric properties of a standardized trauma measure, the Child Posttraumatic Symptom Scale (CPSS-V-SR).

In addition to accessing health services, developing and maintaining social connections are an integral component of integration (Ager & Strang, 2008). The second study of this dissertation examines social connection by exploring how child maltreatment – including neglect and sexual abuse – and history of substance abuse, are associated with adversity experienced by unaccompanied children in long-term foster care. Adversity, including internalizing behaviors, externalizing behaviors, and victimization, are potential barriers to maintain interpersonal relationships. Finally, employment is viewed as an important component of integration (Ager and Strang, 2008). This dissertation examines factors that are associated with increased odds of being employed full or part time at time of discharge from the federal Unaccompanied Refugee Minor program in a sample of unaccompanied children in the US. Enhancing an understanding of what improves the odds of employment for unaccompanied children can shed light on

strategies clinicians and policy makers can make to support unaccompanied children in the US. Further discussion of findings from each study in the dissertation is provided below.

Study #1: Trauma Symptom Profiles in a Sample of Unaccompanied Children: Alignment or Misalignment with the DSM-V

The results of the first study provide a foundation of knowledge for understanding how unaccompanied children in the US respond to trauma. Using the diagnosis of PTSD as a guiding conceptual framework, the results highlight elevated rates of PTSD in samples of unaccompanied children. The rate of PTSD in the overall sample is 7.42%. This finding is substantially lower than existing research, some of which indicates more than fifty percent of unaccompanied children meet criteria for a diagnosis of PTSD in the context of Norway (Jensen et al., 2015). However, in the context of the US, the results of the first study indicate the rate of PTSD is still higher than the rate of PTSD for native-born US adolescents, which the National Institutes of Mental Health estimates to be approximately 5% (NIMH, 2017).

Along with the rate of PTSD for the study sample overall, this study also examined rates of PTSD by country of origin. Results indicate 9.52% of unaccompanied children from El Salvador exhibit a likely diagnosis of PTSD, 8.88% of unaccompanied children from Guatemala exhibit a likely diagnosis of PTSD, and 4.08% of unaccompanied children from Honduras exhibit a likely diagnosis of PTSD. Although the analyses did not reveal any statistically significant differences in rates of PTSD by country of origin, this may be due to a low sample size, which prevented the use of advanced statistical analyses. This limitation will be discussed further in a later section.

A factor extraction using oblique rotation was used to examine the factor structure of the CPSS-V-SR, a standardized measure of PTSD. Two, three, and four factor solutions were

compared, and results revealed that a one-factor solution is a best fit for the data gathered using the CPSS-V-SR. The one-factor solution was tested using a confirmatory factor analysis (CFA). A second CFA was used to test the theoretical four-factor solution of the CPSS-V-SR that corresponds with the diagnostic criteria in the DSM-5. Goodness of fit statistics revealed that the four-factor solution is the best fitting model.

These results indicate that the diagnostic criteria specified in the DSM-5 is a better fitting model for measuring symptoms of PTSD in a sample of unaccompanied children, compared to a one-factor solution. Covariances between items were allowed to improve the fit of the model, and were guided empirically by modification indices. Allow with empirical justification, theoretical and conceptual justification was used to interpret the covariances. For example, the first covariance, between item #17 and item #18, both measure the same construct of PTSD (e.g., increased arousal and reactivity). Unlike the first covariance, the second covariance includes items on separate subscales, complicating the theoretical or conceptual justification. Item #7 and item #17 were allowed to covary to improve the fit of the model. Item #7 measured symptoms of avoidance (i.e., how often a child or adolescent experiences trying to stay away from anything that reminds them of a traumatic event) and item #17 measured symptoms of increased arousal or reactivity (i.e., how often a child or adolescent experiences being very careful or on the lookout for danger). The strength of the correlation between item #7 and item #17 ($r = 0.49$) suggests that as unaccompanied children attempt to avoid a reminder of a traumatic event, their experience of being on the lookout for danger will also increase.

Other covariances that improved model fit for the four factor solution include item #10 and item #19. This covariance suggests that as unaccompanied children experience self-blame about the traumatic event (e.g., item #10), they will experience difficulty paying attention (e.g.,

#19). However, cultural factors may explain an unaccompanied children's ability to pay attention, including language difficulties experienced in resettlement communities. Item #3 and item #13 were also allowed to covary to improve the model fit of the four-factor solution. Item #13 measures how often a participant experiences not feeling close to friends or family or not wanting to be around them. The nature of an unaccompanied child's migration to the US includes the absence of parental or caregiver support, which possibly explains how this item covaries with symptoms of intrusion (item #3). Finally, item #16 and item #20 were allowed to covary. Along with the empirical justification using the modification indices, both item #16 and item #20 measure symptoms of increased arousal or reactivity, highlighting the conceptual support for allowing the items to covary.

Study #1 provides one of the first known uses of a standardized trauma measure to examine symptoms of trauma in a population of unaccompanied children in the US. While symptoms of trauma and rates of PTSD have been examined in populations of unaccompanied children in the context of the UK (Bronstein, Montgomery, & Ott, 2013) and Europe (Jensen et al., 2015; Oppedal & Idsoe, 2015), research using standardized measures of trauma in the US is lacking. This study provides clarity for future research to continue examining symptoms of trauma in populations of unaccompanied children in the US. While the four-factor solution is the best fitting model and aligns with diagnostic criteria outlined in the DSM-5, the use of modification indices to improve model fit highlights the unique experiences of unaccompanied children and how they present symptoms of trauma. Future research should account for the nuances of these modification indices by using qualitative research to examine the relationship between items using narratives of unaccompanied children to create an explanation. While study #1 provides a depiction of how trauma symptoms experienced by unaccompanied children are

measured by the DSM-5, study #2 sheds light on characteristics associated with adversity for unaccompanied children exiting long term foster care.

Study #2: Maltreatment, externalized behaviors, and mental health crises: Factors related to adversity experienced by unaccompanied children in long-term foster in the United States

The primary question addressed in Study #2 focused on identifying what factors are related to adversity experienced by unaccompanied children in long-term foster care.

Unaccompanied children are placed in long-term foster if they are unable to be reunited with a parent or caregiver, which positions this population of unaccompanied children in further circumstances of vulnerability due to their impermanent living setting (LIRS, 2015). Study #2 uses administrative data shared by Lutheran Immigration and Refugee Service (LIRS), a national non-profit that serves immigrants, refugees, and unaccompanied children in the US. Adversity is measured using significant incident reports that measure different types of adversity that are further categorized as types of victimization, externalized behaviors, and mental health crises.

Results from the study identified country of origin, length of stay in foster care, and child maltreatment as factors that are associated with adversity experienced by unaccompanied children in long-term foster care. Unaccompanied children from Guatemala, compared to unaccompanied children from other countries, experience significantly less adversity upon discharge from long-term foster care. One possible explanation for this finding is the unique cultural context of Guatemala. For example, unaccompanied children from Guatemala often speak an indigenous language other than Spanish, complicating their efforts at navigating cultural norms and expectations. This explanation is aligned with research that highlights the difficulties unaccompanied children from Guatemala encounter when seeking community-based

services, possibly complicating their efforts to integrate into US resettlement settings (Schapiro et al., 2018).

Along with country of origin, the study highlights an association between length of stay in foster care and greater risk of adversity. Each additional month in foster care increases the risk of adversity for unaccompanied children. This finding conflicts with existing research that indicates longer lengths of stay in foster care are associated with increased independent living skills, particularly employment and education outcomes, for native-born youth aging out of foster care (Courtney & Dworsky, 2006; Hook & Courtney, 2011). However, unlike native-born adolescents in foster care in the US, unaccompanied children have the added stress of navigating the US immigration system. Research suggests individuals seeking asylum in the US, including unaccompanied children, face prolonged periods of uncertainty regarding their legal status in the US as their immigration cases are processed (Silove et al., 2001). Such uncertainty can exacerbate mental distress from previous exposure, possibly explaining greater risk of adversity with longer lengths of stay in foster care.

One of the main contributions of study #2 is the finding that history of maltreatment is associated with increased risk of adversity. Specifically, a history of neglect, compared to no history of neglect, is associated with more than 2 times the estimated risk of adversity for unaccompanied children exiting long-term foster care. While the history of neglect variable does not allow for detailed understanding of the nature of neglect unaccompanied children are exposed to, the results highlight the potency of basic needs not being met, and how this can contribute to increased adversity for unaccompanied children adjusting to new resettlement communities. While the effects of maltreatment on children in domestic foster care have been studied at length (Gypen, Vanderfaeillie, De Maeyer, Belenger, & Van Holen, 2017; Malinosky-

Rummell & Hansen, 1993; Springer et al., 2007), the results of study #2 reveal how a history of neglect impedes integration for unaccompanied children. Furthermore, this integration is a dynamic process unique to unaccompanied children and not experienced by native-born children or adolescents in foster care. While native-born unaccompanied children may need to navigate new norms and expectations if their foster placement is in a new neighborhood, unaccompanied children face similar circumstances, with the added stressor of needing to navigate new cultural norms and expectations that are integral to integration.

In addition to history of neglect, another dimension of maltreatment highlighted in study #2 is history of sexual abuse. The results of study #2 indicate that a history of sexual abuse is associated with a greater risk of adversity for unaccompanied children exiting long-term foster care. This finding is important, as it clarifies existing research that suggests unaccompanied children are at risk of sexual exploitation during their migration journey to the US (UNICEF, 2016). This finding is aligned with a large body of research that identifies an association between child sexual abuse with increased rates of psychopathology, decreased self-esteem, and relationship difficulties (Mullen et al., 1996). This finding also joins more contemporary research that continues to explore the impact of child maltreatment, particularly child sexual abuse, on functioning in later life (Adams et al., 2018).

An interesting aspect of this finding is the context of the study sample. Of the study sample, 80% of unaccompanied children with a history of child sexual abuse are male. This context situates this finding in a well-established and growing body of research that indicates the healing experiences of male survivors of sexual abuse is unique (Easton, 2014). Future research should explore how the dynamics of masculinity in the context of the US (e.g., winning, seeking

emotional control, risk-taking behavior), might conflict with or complement the masculine norms unaccompanied children are exposed to in the Northern Triangle.

Paper #3: Clocking In: Employment Outcomes for Unaccompanied Refugee Minors Exiting Care in the United States

The primary questions guiding study #3 were to examine to what extent country of origin, length of stay, and legal status are associated with the employment status of unaccompanied children exiting the URM program. The study complements study #1 and study #2 by focusing on a feature that promotes integration by connecting immigrants, including unaccompanied children, with opportunities in the labor market (NASEM, 2015).

The findings of study #3 shed light on the characteristics of an unaccompanied child's life that contribute to their ability to secure employment at their time of discharge from the URM program. Among the findings, length of stay and country of origin both are associated with employment status at time of discharge. Longer lengths of stay in care are associated with increased odds of being employed full or part time at the time of discharge from care. Unaccompanied children who are in care for longer lengths of time may have more education opportunities, leading to more skill development that could translate to the labor market. Previous research has identified an association between longer lengths of stay in care and higher education attainment (Crea et al., 2018b). Moreover, higher education attainment is associated with improved employment outcomes, and both employment and education are key features of integration for immigrants (Ager & Strang, 2008; NASEM, 2015).

Results from study #3 suggest that unaccompanied children from El Salvador, compared to unaccompanied children from other countries, exhibit significantly lower odds of being employed full or part time at their time of discharge from care. Research highlights different

factors that influence an unaccompanied child's migration journey to the US, among them employment opportunities (UNHCR, 2014). This research suggests that unaccompanied children from El Salvador report migrating to the US for economic reasons at lower rates compared to unaccompanied children from Honduras or Guatemala. Adding to this context is the fact that in 2015, El Salvador experienced the highest rates of violence in the world out of countries not at war (Cara Labrador & Renwick, 2018). One possible explanation for the finding that unaccompanied children from El Salvador exhibit lower odds of employment is they migrate to the US fleeing high rates of violence, and not to seek employment opportunities. In addition, results from study #1 indicate unaccompanied children from El Salvador exhibit higher rates of a likely diagnosis of PTSD, compared to unaccompanied children from other Northern Triangle countries. One possibility is that symptoms of PTSD impede an unaccompanied child's ability to acquire and maintain stable employment. However, because study #1 and study #3 include two different samples of unaccompanied children, direct comparison of outcomes should be made cautiously.

Limitations

While this dissertation makes important contributions to understanding characteristics associated with the integration of unaccompanied children in the US, several limitations across the three studies should be acknowledged to caution interpretation of findings. One of the main limitations of the dissertation is the composition of samples in each of the three studies. Because each study sample is composed of unaccompanied children from different settings (e.g., unaccompanied children receiving post release services, unaccompanied children exiting long term foster care, unaccompanied children exiting the URM program), comparing outcomes between the three studies should be made cautiously. In addition, the convenience sampling in

each study limits the generalizability of results. In study #1, although the CPSS-V-SR was administered in Spanish, there could still be issues with translation, particularly for unaccompanied children from Guatemala, possibly biasing the results. In addition, the small sample size in study #1 limited the statistical power of the analyses, possibly affecting the fit of the best-fitting model. The small sample size in study #1 also prohibited further analysis of country comparisons.

Study #2 includes several limitations to guide interpretation of findings. First, the data were derived from administrative databases of unaccompanied children who received post-release services. Therefore, the results of the study are only generalizable to unaccompanied children receiving post-release services, and not unaccompanied children in other settings. The cross sectional study design does not allow for causal interpretation. The dependent variable, adversity, is not a standardized measure, resulting in the absence of psychometric properties to assess validity or reliability of the measure.

Issues with independent variables limit the scope of interpretation of findings. First, history of substance use is dichotomous (*yes/no*) which limits the ability to assess what type of substance the unaccompanied child used. In addition, the dichotomous nature of the substance use variable limits the assessment of frequency of use. The history of maltreatment variables (e.g., physical, verbal, sexual abuse) do not specify if the maltreatment occurred prior to or after the unaccompanied child migrated to the US, limiting the ability to examine if the maltreatment occurred in the country of origin, during the migration journey, or after the unaccompanied child was placed in a resettlement setting.

Study #3 also contains limitations. First, and similar to study #1 and study #2, the data in study #3 were gathered from an administrative dataset and are only representative of

unaccompanied children exiting the URM program in US. Similar to study #2, study #3 uses a cross-sectional research design, which prohibits the ability to establish causality. The limited number of covariates in study #3 constricts the range of understanding how unaccompanied children experience employment opportunities.

Perhaps the most notable limitation of study #3 is the nature of the dependent variable, employment status. Post hoc analyses revealed a binomial logit model, with full time employment and part time employment combined in a dichotomous variable (1=full or part time employed, 0=not employed), is the best fitting model. However, this prohibits the ability to delineate if the independent variables are associated with full time or part employment. Furthermore, this limited the ability to know if an unaccompanied child worked a single job in a full time capacity (e.g., 40 hours per week), or if they worked several jobs in a part time manner that added up to working 40 hours per week. These, along with limitations noted in the previous studies, highlight important areas for future research.

Future Research

The results from these studies and the limitations that guide interpretation of the findings highlight some future areas of research. First, future research using the CPSS-V-SR with samples of unaccompanied children should include larger sample sizes to allow for more advanced analyses as well as country comparisons. Second, future research should employ standardized measures of mental health, beyond PTSD, to examine a broader range of functioning of unaccompanied children in the US. These measures may include measures of depression, anxiety, or somatic distress. Such research can contribute to a more comprehensive understanding of the psychosocial functioning of unaccompanied children in the US. Third, a standardized measure of mental distress should be used to more accurately measure adversity

that is experienced by unaccompanied children in the US. Fourth, future research on employment outcomes for unaccompanied children should examine both full time employment and part time employment as separate dependent variables. In addition, future quantitative research on employment outcomes for unaccompanied children should include data on wages to assess the earning potential for unaccompanied children, and what factors may be associated with high or low earnings capacity.

For both research on both mental health and employment outcomes, future research should include qualitative methods that use the narratives of unaccompanied children to capture a different dimension of their lived experiences as they relate to mental health and employment. Such research can complement the exploratory nature of studies in this dissertation and help direct future research efforts using quantitative methods. Finally, future research should examine mental health and employment outcomes, as well as other dimensions of integration, across different settings of unaccompanied children and with random sampling techniques. Examining mental health and employment outcomes, along with other dimensions of integration, across different settings of unaccompanied children, will allow for a more precise comparison of outcomes.

Conclusion

As unaccompanied children continue to arrive at the US border, interest in their integration in US society is likely to grow as they enter schools, communities, and work settings. Mental health and employment outcomes are two distinct and important characteristics of integration that unaccompanied children experience after their arrival to the US. This dissertation provides an exploratory lens to understand how well symptoms of PTSD experienced by unaccompanied children are measured by DSM-5 diagnostic criteria, what characteristics are

associated with adversity experienced by unaccompanied children, and what characteristics are associated with employment outcomes for unaccompanied children. The unique contribution of this dissertation is a focus on potential barriers to integration (e.g. PTSD, adversity) as well as strengths that can promote integration (e.g. employment outcomes).

In *A Nation of Immigrants*, posthumously published in 1964, President Kennedy wrote that immigration

is the expression in action of a positive belief in the possibility of a better life. It has thus contributed greatly to developing the spirit of personal betterment in American society and to strengthening the national confidence in change and the future. (Kennedy, 1964, pp. 35 – 36)

This idea offered by President Kennedy applies to the contemporary experiences of unaccompanied children migrating to the US. These children embody “the spirit of personal betterment” and their arrival to the US is the embodiment of hope. This dissertation provides a foundation of understanding how unaccompanied children experience PTSD, adversity, and employment outcomes as they integrate into US society in pursuit of safety, possibility, and opportunity.

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Appendix A – Post-Release Services Project Flier

Dear Partners,

I am writing because Lutheran Immigration and Refugee Service (LIRS) is currently collaborating with researchers from the Boston College School of Social Work on a project focusing on trauma symptoms experienced by unaccompanied children in the United States. The purpose of this project is twofold: (1) To examine how a valid measure of mental health works for our population of unaccompanied children; and (2) To inform future data collection efforts based on what we learn during this effort. To support this work, LIRS is reaching out to partner agencies providing post-release services to unaccompanied children to begin planning data collection.

The project will be measuring trauma symptoms using a standardized trauma measure, the Child PTSD Symptom Scale (CPSS-V). The CPSS-V is a 47-item questionnaire that measures stressful events and associated symptoms of PTSD experienced by children and adolescents. Questions 1-20 on the CPSS-V measure stressful events experienced by the child or adolescent by asking if specific events have been experienced (Yes/No). Questions 21-40 measure symptoms of PTSD experienced by the child or adolescent using a 5-point Likert Style Scale (0=Not at all; 4=Six or more times a week/Almost always). Questions 41-47 on the CPSS-V measure if PTSD symptoms have affected different areas of a child's life (Yes/No). The CPSS-V takes approximately 25 minutes to complete. The instrument corresponds with PTSD symptom criteria in the DSM-5 and can be helpful for case management and treatment planning. We hope these data can inform the clinical decision making process for clinicians working with unaccompanied children, and inform the referral process for unaccompanied children exhibiting symptoms of trauma.

Data collection will take place between February 1 and March 31, 2018. Data collection will involve caseworkers administering the CPSS-V to clients receiving post-release services. Children and adolescents can complete the CPSS-V on their own, or the caseworker can administer the instrument to the child or adolescent. In addition to the CPSS-V, caseworkers will be asked to collect demographic questions including age, gender, country of origin, case start and end data, and length of migration journey (in weeks). In order to answer additional questions you may have regarding this project and the process of administering the CPSS-V, LIRS will be hosting webinars to facilitate training of using the CPSS-V. We look forward to partnering with you on this exciting project, and we appreciate your continued support of unaccompanied children in your care.

Kind Regards,

Dawnya Underwood, MSW
Director, Children's Services
Lutheran Immigration and Refugee Service

Appendix B – List of Special Incident Report Types

1. Allegation against program staff
2. Child neglect – current
3. Harm to self
4. Harm to staff
5. Injury requiring medical attention
6. Mental health emergency
7. Other abuse – current
8. Physical abuse – current
9. Possession/Use of weapon
10. Runaway
11. Sexual abuse – current
12. Sexual assault – historic
13. Suicidal ideation/gesture/attempt
14. Suspected smuggling
15. Verbal abuse – current
16. Arrest/Incarceration of UC
17. Customs Border Patrol/Immigration Custom Enforcement Allegation
18. Disruptive behavior
19. Inappropriate sexual behavior
20. Physical aggression
21. Possession/Use of drugs/Alcohol
22. Runaway Attempt/Runaway Risk
23. Verbal aggression