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A Systematic Review: Understanding the effects of story-based interventions for refugee children at risk for mental health conditions.

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An abstract of
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Abstract

A Systematic Review: Understanding the effects of story-based interventions for refugee children at risk for mental health conditions.

By JinYoung Kim

The United Nations Convention on the Rights of the Child articulates the promotion and dissemination of children's books for a child's social, spiritual, and physical and mental health (UNICEF 1989). However, there is a gap in the literature about the potential effects of children's books, or story-based interventions for refugee children. With the high prevalence of depression, anxiety, and post-traumatic stress disorder (PTSD) symptoms among refugee children, it is vital to develop culturally appropriate and empirically tested interventions to lessen the barriers of language, service utilization, and stigma associated with mental health interventions (Attanayake et al., 2009; Bogic, Njoku, & Priebe, 2015; Lustig et al., 2003). Thus, this systematic narrative synthesis aims to understand the effects of story-based interventions for refugee children at risk for mental health issues.

The synthesis found three main themes surrounding story-based interventions for refugee children. First, studies with refugee participants from multiple populations recruited and conducted their interventions in higher income countries, whereas interventions targeting a specific refugee population recruited and conducted their intervention at the conflict site or refugee camp. Second, the intervention strategies varied across the studies depending on intervention length, group v. individual-based approaches, and professional v. non-professional facilitators. Third, story-based interventions involving characters, otherwise known as children's book interventions, are best suited for children younger than 7 years of age. This is important because refugee children who are younger than 7 years of age may not have the language capacity to understand their own complex emotions and traumas from their pervious experiences. Thus, children's book interventions for children 7 years of age and younger should develop main characters who experience similar refugee experiences and emotions as the refugee children. Additionally, this review found components of story-based interventions to be a promising supplemental tool for future mental health therapies because the approach invites refugee children to bring their experiences and cultural backgrounds into the intervention to work through their emotions associated with traumatic events. However, further research is required, not only to understand the influence and measurement of cultural background, but the priority of mental health needs for the refugee children.

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Introduction

Introduction & Rationale

In 1989, the United Nations developed the *Convention on the Rights of the Child*, articulating the rights and visibility of a child, 18 years and younger, and issues affecting their well-being. Of the rights outlined, Article 17 focuses on the promotion of a child's social, spiritual, moral well-being, and physical and mental health. Specifically, Sections B and C encourage the promotion of information and material from diverse cultural, national, and international sources, and encourage production and dissemination of children's books, respectively (UNICEF 1990). In doing so, UNICEF recognizes the overarching goal of creating a safe, harmonious, family environment for children to develop their own personalities as their rights as a human being.

Outbreaks of war and political unrest have negatively impacted the safety and environment of children and families. Refugees are persons forced to flee their homes and livelihoods to seek protection from danger, persecution, conflict, and violence (Reavell & Fazil, 2017). Within these trying events, children and families must travel for long periods of time, living day to day within an uncertainty of repatriation or the next location for shelter. Thus, many experience depression, anxiety, and PTSD symptoms (Fazel, Reed, Panter-Brick, & Stein, 2012).

Depression symptoms in refugee children may be expressed in low mood, loss of interest or pleasure, declining school performance, or conduct disorders. Expression of anxiety symptoms in refugee children may be marked by restlessness, irritability, sleep disorders, somatic symptoms of headaches and abdominal pain. Lastly, PTSD symptoms can be characterized by persistent avoidance of stimuli, specific fears (e.g. fear of being alone), withdrawal, nightmares, visual images, feelings of helplessness, increased arousal, lack of concentration, and agitated behavior in children (Fazel, 2002). The presentation of these symptoms in children can be detrimental later

into adulthood if left untreated, especially because children who are 18 years and younger are physically and psychologically still developing and unresolved psychological symptoms may manifest later into adulthood (Almqvist & Brandell-Forsberg, 1997; Fazel, 2002). A systematic review and meta-analysis study revealed that among a cohort of refugee children, 43% exhibited symptoms of depression, 27% exhibited anxiety, and approximately 50% exhibited post-traumatic stress symptoms (Attanayake et al., 2009). Moreover, a longitudinal study of refugee children revealed that high rates of depression, anxiety, and PTSD were persistent throughout adulthood (Bogic et al., 2015). Such alarming prevalence rates in refugee children and adults, point to a dire need for mental health service to alleviate the negative manifestations.

Unfortunately, much of the responses to these mental health needs has fallen short due to Westernized theories, models, and approaches (DiNicola 1998, Kinzie 2001, Lustig et al., 2003; Summer, 1999; Summerfield, 2000; Watters, 2001). The Westernized prospective can lead to barriers in mental health service utilization due to stigma and language barriers (Lustig et al., 2003). Additionally, many interventions and medications for refugee youth lack empirical evidence (Lustig et al., 2003). However, current approaches, such as Narrative Exposure Therapy (NET) and other story-based interventions have developed as a more culturally appropriate intervention for refugee children experiencing depression, anxiety, and PTSD symptoms (Berg-Cross & Berg-Cross, 1976; Cohen, 1987; Maranga-Musonye, 2010; Thabet, Vostanis, & Karim, 2005). Through these story-based approaches, refugee children are provided the liberty to, in a culturally salient way, express their own narrative or identify with the story's character to resolve emotions that arise from a traumatic event, or events (Ager & Metzler, 2017; McPherson, 2012; Neuner et al., 2008; Singh, Sylvia, & Ridzi, 2015; Strekalova-Hughes & Wang, 2019; Veronese, Cavazzoni, & Antenucci, 2018). Despite new approaches such as NET, a thorough literature review, revealed a

lack of culturally diverse children's books in production or distribution for refugee children. Thus, there is a gap in our understanding of the influence or effects children's books may have on refugee children experiencing traumatic events.

Purpose. The purpose of this study is to understand and explore the effects of existing story-based interventions for refugee children at risk for mental health conditions. Furthermore, this systematic narrative synthesis will further inform the development of a future children's book for Syrian refugee children resettled in the United States.

Although the American Psychological Association (APA) has developed a children's book publishing company called, *Magination Press*, there is a lack of research surrounding the potential impacts of children's books and children's psychological development. The APA's publishing company publishes children's books on a multitude of topics, such as, divorce, shyness, fears, trauma, or death. However, there is a lack of data about the effectiveness of this approach among refugee children. Thus, this systematic narrative synthesis aims to understand a relatively new field of research in understanding children's books as an effective mental health intervention for refugee children.

Literature Review

Introduction

This chapter aims to review the impact of refugees' traumatic displacement experiences, and the mental health impact for child refugees. The chapter will also provide the background information on the theories, models, and application of story-based interventions, a psychosocial mental health intervention strategy, within a Western and global context.

Refugees and the impact of traumatic displacement experiences. "Refugee" is defined as persons forced to flee their home countries due to violence, conflict, and/or persecution from outbreaks of war and political unrest. They must leave behind their possessions, homes, and livelihoods (Reavell & Fazil, 2017). Refugee children and families must travel for long periods through uncertainty and danger to seek asylum in temporary or permanent locations, often separated from other family members and neglected of basic necessities for survival. Then, after the refugees resettle into a host country, the refugee must acclimate to their new environments, juggle daily tasks of living in the host country, and learn the host language. These post-migratory stressors have been shown to negatively impact the mental health status of refugees (Silove, Sinnerbrink, Field, Manicavasagar, & Steel, 1997). Due to these traumatic and stressful migratory and resettlement experiences, many refugees experience high levels of depression, anxiety, and PTSD symptoms (Fazel et al., 2012).

Child Refugee Mental Health. More specifically among refugees, child refugees are one of the most vulnerable refugee populations, especially as children often become displaced from their families and forced to resettle in unfamiliar areas and other countries on their own (Lustig et al., 2003). Studies have shown exposure to violence is a key risk factor in children's psychological functioning, and unresolved symptoms of depression, anxiety, and post-traumatic stress may

manifest throughout a child's development (Almqvist & Brandell-Forsberg, 1997; Fazel et al., 2012). Common symptoms of depression in refugee children may be expressed in low mood, loss of interest or pleasure, declining school performance, or conduct disorders. Expression of anxiety symptoms in refugee children may be marked by restlessness, irritability, sleep disorders, somatic symptoms of headaches and abdominal pain. Lastly, PTSD symptoms can be characterized by persistent avoidance of stimuli, specific fears (e.g. fear of being alone), withdrawal, nightmares, visual images, feelings of helplessness, increased arousal, disorganized, lack of concentration, and agitated behavior in children (Association, 2013; Fazel, 2002).

A large pooled systematic review and meta-analysis study showed that out of 7,920 refugee children, 43% had symptoms indicative of depression, 27% with major anxiety, and about 50% exhibiting symptoms of PTSD (Attanayake et al., 2009). Furthermore, another meta-analysis on the long-term mental health of war-related refugees showed that the adult prevalence rate of depression was 2.3-80%, PTSD 4.4-86%, and unspecified anxiety disorder 20.3-88%. These large ranges occur because these prevalence rates depend on which countries the refugees came from, where they ultimately resettled, and the measurement tools used to measure depression, anxiety, and PTSD symptoms (Bogic et al., 2015).

These meta-analyses exemplify the high prevalence of depression, anxiety, and PTSD among refugee children and the manifestation of these mental health issues into adulthood. Furthermore, these meta-analyses together highlight the necessity for mental health services for refugees and refugee children throughout their migratory and resettlement experiences.

Theories, Models, and Applications of Story-Based Interventions

This section will review the theories, models, and applications of story-based interventions to address the need for mental health services for refugee children. In this study, story-based intervention is defined as a mental health intervention that utilizes narratives, stories, or storytelling as a component to alleviate symptoms of mental health problems. The sections will elaborate on the Western models of story-based interventions in the form of children's literature and Bibliotherapy. This chapter will then move on to explain the recent application of story-based interventions, such as Narrative Exposure Therapy (NET), for child refugees at risk for mental health conditions.

Western Models.

Children's Literature. Within a Western context, stories for children, or children's literature have shown promising applications. Many countries including, England, Canada, New Zealand, and Belgium have piloted children's rights education through their school systems utilizing children's books as education avenues. Stories, such as, *Yertle the Turtle* by Dr. Seuss, *Peter Pan* by J.M. Barrie, *Horton Hears a Who!* by Dr. Seuss, and *Harry Potter* by J.K. Rowling, are famous books that convey inherent human rights and norms by appealing to children's imagination (Todres and Higinbotham, 2015). In the case of *Yertle the Turtle*, Mack, the main turtle stuck at the bottom of a stack of other turtles urges for the respect of his rights and the rights of his fellow turtles as Yertle, the king of the pond, sits at the top. At its face, this story speaks to the demise to those falling into greed. However, Mack is a character in which children can learn participation and a culture of civic responsibility (Todres and Higinbotham, 2015). The biggest influence of children's literature comes from the ability to facilitate a child's imagination. Children can use imaginary worlds to test their own dilemmas, rework, and resolve problems by identifying

themselves with the main character (Bearne 2000). Bruno Bettelheim states that children's literature, specifically fairy tales, offer examples of temporary and permanent solutions to pressing difficulties, fears of abandonment, and parents ceasing to protect the child. Bettelheim states that fairy tales translate complicated human psychology into narratives that children can understand (Bettelheim 1975).

Bibliotherapy. Bibliotherapy is another Western approach that functions more as a clinical tool to diagnose and build relationships between the child and therapist. An indirect function of Bibliotherapy is to increase parent-to-child communication and provide direct information on a specific topic area (Berg-Cross & Berg-Cross, 1976). The approach involves the therapist choosing an appropriate book for the child to read based on the child's symptoms and traumatic experience. If the book was appropriately chosen, the child should then resonate with the story's character to learn how to cope with their difficulties and problem-solve, much like the story's character. Similar to the story-telling psychosocial interventions, Bibliotherapy offers an interactive element for the children to express their emotions through a creative medium rather than just verbalizing their previous traumatic experiences (Berg-Cross & Berg-Cross, 1976; Cohen, 1987; Miller & Billings, 1994). However, this approach differs from Todres and Higinbothem (2015) in that Bibliotherapy shows a promising therapeutic approach to children's literature to not only build rapport between the therapist and child, but guide children to talk about their mental health problems.

Advantages and Disadvantages of Western Models. Currently, many Western models and practices exist for children afflicted by mental health conditions. These models and practices have been empirically tested for efficacy and effectiveness and grounded in rigorous research on child development and psychopathology (Berg-Cross & Berg-Cross, 1976; Cohen, 1987; Lustig et al., 2003).

However, Western models have their disadvantages. First, Western, middle-class constructs of childhood development and psychopathology cannot be generalized across different cultures. Importantly, these studies and interventions measure loss and adversity in refugee children, but fail to recognize the strengths and resilience in child refugees (DiNicola, 1998; Kinzie, 2001; Lustig et al., 2003; Summer, 1999; Summerfield, 2000; Watters, 2001). Secondly, westernized approaches to mental health have not been effective due to barriers in service utilization, stigma, language, and priority among low-resourced areas (Lustig et al., 2003). In other words, the foundations of westernized concepts of child development and psychopathology are not appropriate in addressing why refugee children cannot access mental health services in the first place. Many refugee children do not access mental health services because of the stigma surrounding mental health, the differences in language, and the low priority of mental health has in low-resourced areas (Lustig et al., 2003). Thus, mental health services for refugee children should invite culturally appropriate methodology that plays to the strengths and resilience of the refugee children.

The highlight of these Western applications of stories, or children's literature, exemplifies the potential impact of story-based mental health interventions for children. The stories represented specified the application of the stories in which children could identify with characters, grow in creativity, and resolve internal conflicts without formal instruction. Unfortunately, the same

Westernized stories cannot be utilized to aid refugee children, as the stories would not be culturally appropriate for the refugee children to identify with. First-hand narratives of refugee children, or characters in which refugee children can identify with may prove to be a more culturally appropriate application.

Narrative Exposure Therapy (NET) as a Story-Based Intervention. Among the interventions that have been explored and documented, school-based, group psychotherapy and autobiographical psychotherapies have shown promising results (Lustig et al., 2003). Thus, more recently, there are newer developments of more culturally appropriate mental health interventions for refugee children in the form of Narrative Exposure Therapy (NET) and story-based psychosocial interventions (Berg-Cross & Berg-Cross, 1976; Cohen, 1987; Maranga-Musonye, 2010; Thabet et al., 2005). These therapies are built on the foundations of Cognitive Behavioral Therapy (CBT), where the participant works through the adverse emotions attached to a particularly traumatic event (Schauer et al., 2004). However, NET encourages a self-reflective, autobiographical narrative to help the child work through emotions associated with traumatic events (McPherson, 2012; Neuner, Schauer, Klaschik, Karunakara, & Elbert, 2004). This form of therapy is based off the neurocognitive memory theory. The theory explains the development of PTSD through pathologic distortions of episodic memories through autobiographical and sensory-perceptual representation (Neuner et al., 2008). The theory further explains how trauma disrupts the healthy development of biological pathways that build episodic memories in children. Thus, this disrupted pathway may manifest into maladaptive behaviors in children. NET aims to realign this disrupted pathway by asking the participant to retell their exposures to traumas and reshape their emotional responses to the traumatic experiences (McPherson, 2012; Neuner et al., 2008).

More recent studies have empirically tested NET for refugee children afflicted by PTSD in the form of KIDNET, or NET for kids. This form of clinical therapy has been showing promising results, especially as the nature of the therapy takes the child's cultural background and language into account (Neuner et al., 2008). NET is also grounded in CBT and neurocognitive memory theory to alleviate the negative effects of traumatic displacement events (McPherson, 2012; Neuner et al., 2004; Schauer et al., 2004). This is important due to the lack of evidence surrounding therapeutic mental health models for refugee children (Lustig et al., 2003). However, because this approach is fairly new so, further empirical study is needed to evaluate the long-term impacts.

Furthermore, other story-based approaches have been studied where the intervention focuses on narrative techniques in which children interact and build rapport with a character from a story or published literature. Children can identify and process their emotions that they may not otherwise be able to verbalize (Eppler, Olsen, & Hidano, 2009). Thus, these interventions work to build resiliency through creative expressions (Eames, Shippen, & Sharp, 2016; Miller & Billings, 1994).

Application of Story-Based Interventions among Refugee Families. Recent studies have shown the possible application of literature for refugee children and their families, specifically aimed at strengthening parent-child relationships to build protective factors for children (Ager & Metzler, 2017; Singh et al., 2015; Strekalova-Hughes & Wang, 2019; Veronese et al., 2018). These studies were conducted within the context of refugees resettling in higher-income countries. Of these studies, Singh et al (2015) utilized a parent-as-teachers approach to teach reading to refugee children. The parents signed-up for a monthly subscription of Western-influenced children's books to be delivered to their homes, then the parent and child attended sessions at the local library to learn how to read and promote parent-child relationships. Of note,

the intervention team could not find culture-specific children's books for each family. Although many of the parents, all mothers, did not know how to read English, the parents interpreted the pictures within the books and were able to relay the information back to their children (Singh et al., 2015). Through participant observation and individual interviews, the study found that traditionally families passed down culture and history from generations through oral storytelling methods. The children's book intervention was able to introduce a print-based method for transferring knowledge from one generation to another (Singh et al., 2015).

Additionally, Strekalova-Hughes and Wang (2019) describe a phenomenon of utilizing story-telling as a *cultural sustaining pedagogy*. The study discusses story-telling as an ancient art form in which heterogeneous communities maintain "cultural practices and traditions, socialize children to their cultures, and aid in overall development" (pg 6). The authors investigate the perceptions of story-telling in Nepali, Somali, and Sudanese refugee students and their families resettled in western New York. The student participants and their families were recruited from a local elementary school in western New York. The students found storytelling was a way of keeping their family's culture and history alive throughout generations. After exposure to more Western-influenced stories at school, the students found themselves also identifying with the characters from stories like Greek Mythology. The study also found children applying and creating connections between family stories and Western cultural contexts. One of the participants, a six-year-old Somali boy, recalled a family story based on Somali cultural roots. The story depicted a traveler who stopped at a stranger's house during his journey to see the doctor. The boy was able to apply the lessons of generosity and hospitality from the Somali story to further understand discrepancies in the Western, U.S. approach to the cultural narrative of "stranger danger" (Strekalova-Hughes & Wang, 2019). The study's results additionally reflect the ways in which

refugee children could cope with the impacts of acculturation, or process of individuals or groups experiencing a cultural or psychological change, in school settings (Lincoln, Lazarevic, White, & Ellis, 2016). Through family story-telling, culturally appropriate to their cultural context, the children were able to learn moral lessons, like the moral lessons in *Yertle the Turtle* or *Harry Potter* in the Western context (Todres and Higinbotham, 2015).

In summary, previously validated Western-approaches for mental health interventions have been identified, such as Bibliotherapy and NET. Although these approaches have shown promising results within the Western-context, it is important to understand the potential impacts these approaches may have for refugee children. Future empirical research is needed to understand this gap in the literature.

Conclusion and Significance

With high prevalence rates of depression, anxiety, and PTSD symptoms in refugee children, effective and empirically tested interventions are needed, especially during critical periods of development in childhood (Attanayake et al., 2009; Bogic et al., 2015; M Fazel, 2002; Lustig et al., 2003). Current NET and other story-based approaches have shown promising results in developing mental health interventions with a culturally appropriate foundation. Such approaches may also potentially lessen the impacts of barriers in service utilization, stigma, and language (Berg-Cross & Berg-Cross, 1976; Cohen, 1987; Maranga-Musonye, 2010; McPherson, 2012; Neuner et al., 2004; Singh et al., 2015; Strekalova-Hughes & Wang, 2019; Thabet et al., 2005). This systematic narrative synthesis aims to review story-based interventions among refugee children at risk for mental health conditions to better understand the current literature in this area and inform recommendations for next steps.

Additionally, this synthesis will serve as the foundation in which to write a culturally appropriate children's book in the future. Although children's books alone cannot be a mental health intervention, providing a culturally appropriate tool for children to work through their emotions and traumatic experiences, may serve as a promising supplemental tool. As mentioned before, the APA has created *Magination Press*, a publishing company focused on publishing children's books for children ages 4 through 18. However, there is a gap of children's books specifically for refugee children. With the ever-growing number of refugees in Western countries, this area of culturally appropriate children's books needs to be expanded. Thus, using this synthesis and a deeper understanding of the experiences of a specific refugee population, a proposal for a culturally appropriate children's book that can be utilized as a supplemental tool for therapists, parents, social workers, and teachers working with refugee children will also be presented.

Methodology

Introduction

This section describes the protocol for this systematic review. The methodology for this systematic review was developed based on the Narrative Synthesis for Systematic Review Guideline (Booth, Sutton, and Papaioannou, 2016, p. 183; Popay *et al*., 2006; Snilstveit, Oliver, & Vojtkova, 2012). Additional guidelines such as the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, 2009) Checklist were utilized in the development of the review protocol to account for all components of a robust systematic review.

Research Design and Study Characteristics

PsycInfo, PILOTS, Psychology and Behavioral Science Collection, MEDLINE, Child Development and Adolescent Studies, and Google Scholar were databases utilized to identify and extract all relevant literature. Google Scholar was used to collect dissertation literature and other non-peer reviewed literature and was not used as the primary database for this review. Keyword searches for this review consisted of: *bibliotherapy*, *story*, *reading*, *narrative*, *intervention*, *refugee*, *displaced*, *children*, and *minor*. Boolean Connectors "and" and "or" with parentheses were utilized within the searches of the databases.

It is important to note, keywords such as, *mental health* or *depression*, *anxiety*, and *PTSD* were not included within the search terms. A preliminary search found that these terms introduced literature that only focused on mental health symptoms rather than story-based interventions. Thus, the term "intervention" was used as a proxy for mental health problems and was used to better capture studies related to the current aims.

Lastly, no Institutional Review Board (IRB) protocol was submitted for this review, as no human participants were involved in the collection of data.

Data Extraction and Analysis

Figure 1 is a diagram of identified literatures according to the inclusion and exclusion criteria. The diagram schematic was adapted from PRISMA. Articles were initially identified based on titles and relevance to keywords and research objectives. Then, the methodology section of the articles was briefly reviewed and documented. After thoroughly reading and analyzing the articles based on the inclusion and exclusion criteria, the relevant literature was documented within an Excel database based on article/intervention, refugee population, settings/context, key program components, outcome measures, results. These categories were informed from the Narrative Synthesis Guidelines (Booth et al., 2016; Popay et al., 2006; Snilstveit et al., 2012).

Background and Aim of Narrative Synthesis. A narrative synthesis is a method used to synthesize qualitative and quantitative studies into a text-based systematic review. This method is used when a meta-analysis is not appropriate due to inconsistencies in individual study measurements. A narrative synthesis is beneficial to develop a preliminary synthesis of study information and exploring relationships in the data. The specific tools and techniques used to achieve this are grouping, clustering, and transforming data from studies into a common rubric to determine the effects of interventions and the factors that shape the implementation of interventions (Popay et al. 2006; Snilstveit et al., 2012).

The primary aim of this narrative synthesis is to develop a preliminary synthesis of story-based interventions for refugee children, as these forms of mental health interventions are relatively new. This synthesis will explore content and group the findings from the studies based on refugee population, intervention components, and mental health outcomes of depression, anxiety, and PTSD symptoms. The synthesis also seeks to identify the facilitators and barriers to

implementation and explore the relationship reported between such facilitators and barriers. The inclusion and exclusion criteria of this systematic review are below.

Inclusion Criteria.

- Intervention targets refugee children at risk for mental health conditions, such as, depression, anxiety, and/or post-traumatic stress disorder symptoms measured by a validated mental health measure.
- Intervention participants are refugee children younger than 18 years of age.
- Study specifically utilizes bibliotherapy, NET, or other story-based interventions.
- Articles are published between 1998 and 2018. This review aims to understand the effectiveness of NET and other story-based interventions, thus, it is important to understand the modernization of practices within this 20-year span, as NET was initially utilized with refugees in the early 2000s.

Exclusion Criteria.

- Articles not using stories as an intervention strategy.
- Interventions are not developed from a specific theory or body of scientific evidence.
- Literatures without measures for mental health outcomes.
- Articles published before or after 1998 - 2018.

Outcome Measures

With the qualitative and narrative nature of these interventions, there is no control as a comparative social intervention for this systematic review. As discussed above, this review will provide a narrative synthesis of the intervention outcomes and thematically explore story-based interventions for refugee children, younger than 18 years old, at risk for prominent mental health

issues among refugees, such as, depression, anxiety, and/or PTSD symptoms. Each study found will be evaluated based off the type of intervention, refugee population(s), settings/context, key program components, outcome measures, results. As this synthesis provides an exploratory and preliminary insight into story-based interventions for refugee children, themes cannot be established a priori, but a thematic analysis will be conducted based on the literature found.

In summary, this systematic review aims to conduct a narrative synthesis to gain a preliminary understanding of story-based interventions as a culturally appropriate means for a mental health intervention for refugee children at risk for mental health conditions.

Results

Introduction

This section describes the intervention components and key findings of the nine story-based interventions for refugee children at risk for mental health issues, such as, depression, anxiety, and PTSD symptoms. The information is presented as a systematic narrative synthesis, rather than a quantitative meta-analysis due to the high variability across the various interventions. The interventions this systematic review identified will be presented as results across themes: refugee population and context, intervention design, and age.

Using the methodology described in the previous chapter, the systematic literature search yielded the following studies:

1. *Creative Expression Workshops in School* – Rousseau et al. (2005)
2. *Mein Weg* – Pfeiffer et al. (2018)
3. *Writing for Recovery* – Kalantari et al. (2012)
4. *Group Crisis Intervention* – Thabet et al. (2005)
5. *Narrative Exposure Therapy as Treatment for Child War Survivors* – Onyut et al (2005)
6. *Narrative Exposure Therapy for 7-16 year olds* – Ruf et al. (2010)
7. *Rapid-Ed Intervention* – Gupta and Zimmer (2008)
8. *KIDNET v. Meditation-Relaxation Techniques* – Catani et al. (2009)
9. *Huggy-Puppy Intervention* – Sadeh et al. (2008)

Refugee Population and Context

The current review found different intervention approaches based on the refugee population and context. Specifically, the review showed that the studies with refugee participants from multiple countries were often recruited after resettlement within higher income countries. The studies that specified a target refugee population from a particular country tended to conduct their interventions within conflict settings or refugee camp. Table 2 summarizes the specific countries represented for each intervention, but overall, the interventions reviewed for this systematic review covered refugee populations from Afghanistan, Angola, Eritrea, Ethiopia, Gambia, Georgia, Ghana, Iran, Iraq, Israel, Nigeria, Pakistan, Russia, Sierra Leon, Somalia, Sri Lanka, Sudan, Syria, and Turkey.

Two interventions targeted their intervention to refugees from multiple locations and contexts (Rousseau, Lacroix, Singh, Gauthier, & Benoit, 2005; Ruf et al., 2010). For example, the study with the most variability of refugee populations, Ruf et al. (2010), conducted their interventions at a Research-Outpatient Clinic for Refugees at the University of Konstanz, Germany. Thus, recruitment of refugees was conducted after resettlement had occurred in a high-income country, rather than within the refugee camp itself. There were seven studies that recruited and conducted their interventions in areas of conflict or in a refugee camp (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari, Yule, Dyregrov, Neshatdoost, & Ahmadi, 2012; Onyut et al., 2005; Pfeiffer, Sachser, Rohlmann, & Goldbeck, 2018; Sadeh, Hen-Gal, & Tikotzky, 2008; Thabet et al., 2005). It is important to note that majority of these studies found follow-up measures to be difficult, especially in areas of on-going conflict because many participants had relocated and endured additional socioeconomic strains (Kalantari et al., 2012).

Additionally, majority of the interventions involved participants who had endured war-related depression, anxiety, and post-traumatic stress symptoms (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari et al., 2012; Onyut et al., 2005; Pfeiffer et al., 2018; Ruf et al., 2010; Sadeh et al., 2008; Thabet et al., 2005). Thus, with the exception of two studies focusing on refugee participants after a natural disaster, the studies targeted refugees with war-related trauma experiences (Catani et al., 2009; Rousseau et al., 2005).

Intervention Designs

The current review also found that different intervention designs have been used to conduct story-telling interventions with children. Specifically, variation was found for intervention length, intervention modality (group versus individual), intervention facilitator and mental health outcome measures. A summary of these intervention modalities can be found on Table 1, and a summary of mental health outcome measures and results can be found in Table 2.

Intervention Components: Length of Intervention. This review found that different intervention lengths across the studies contributed to some differences in intervention delivery. Longer interventions typically consisted of more one-on-one therapeutic work, whereas shorter interventions were more self-paced.

This review found that the interventions with shorter timespans and sessions were more self-paced. For example, the *Huggy-Puppy Intervention* had activity components that did not require multiple sessions, since children were prompted to care for Huggy, the doll, over the course of 3 weeks on their own accord (Sadeh et al., 2008). In the case of *Writing for Recovery*, the entire intervention took place for over three days, with two 15minute sessions per day. Of all the story-based interventions found, this intervention was the shortest (Kalantari et al., 2012). *Huggy-Puppy* was presented in a way where the children had their own freedom to take responsibility of the doll

on their own time (Sadeh et al., 2008). Similarly, *Writing for Recovery* provided short writing prompts to stimulate thinking and reflection. These techniques were self-paced reflections rather than a standardized clinical therapy sessions (Kalantari et al., 2012)

On the other hand, longer interventions required heavier facilitator input for each progressive session. The seven interventions consisted of 60 to 90 minute sessions over the course of 2-12weeks where the participants would continuously meet the facilitator face-to-face on a weekly basis (Catani et al., 2009; Gupta & Zimmer, 2008; Onyut et al., 2005; Pfeiffer et al., 2018; Rousseau et al., 2005; Ruf et al., 2010; Thabet et al., 2005). Although self-reflection was involved, these interventions took on a more therapeutic approach to teach skills on relaxation, recognizing emotions associated with traumatic events, and provide creative outlets to describe their autobiographical narratives, all at the pace set by the facilitators (Catani et al., 2009; Gupta & Zimmer, 2008; Onyut et al., 2005; Pfeiffer et al., 2018; Rousseau et al., 2005; Ruf et al., 2010; Thabet et al., 2005). This form of deeper work requires more time in the form of frequency and durations of the sessions. These differences in intervention length demonstrate the breadth of applications of story-based interventions as a therapeutic or expressive form of resolving emotions from traumatic experiences.

Intervention Components: Group v. Individual. The current review found that story-based interventions for refugee children also vary based on the intervention modality. Of the studies identified, seven studies utilized group-based modalities, while the other two studies utilized an individual-based modality.

Group-based interventions took on a more discussion and expressive format, where the goal wasn't to change emotional reactions to traumatic narratives but express them with their peers. On the other hand, individual-based interventions took on a more clinical approach where the

facilitator would try to help the participant change their emotional reactions to their traumatic narratives. Majority of the interventions reviewed conducted group-based interventions focused on discussion and expression of emotions (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari et al., 2012; Pfeiffer et al., 2018; Rousseau et al., 2005; Sadeh et al., 2008; Thabet et al., 2005). Only two studies utilized individual, one-on-one sessions with the therapist and participant – both conducted KIDNET as their intervention modality (Onyut et al., 2005; Ruf et al., 2010). KIDNET is a alternative version of NET, discussed in the literature review. NET is more formally utilized with adults, whereas KIDNET is geared toward children (McPherson, 2012; Neuner et al., 2004; Onyut et al., 2005; Ruf et al., 2010; Schauer et al., 2004).

Interventions such as KIDNET are better suited for individual-based settings since the facilitator and participant are working together to cultivate an autobiographical narrative and alter emotional reactions to traumatic events (Onyut et al., 2005; Ruf et al., 2010). This approach would be difficult to accomplish with a group of children, especially when the autobiographical narratives and emotional reactions would be different for each participant. An individual-based setting allows a certain intimacy for this change in emotional reaction. On the other hand, group-based interventions facilitate small group discussions and share war-related experiences with peers to focus on creative expressions of emotional experiences. This approach creates a sense of normalcy for the participants' emotional reactions to traumatic experiences, especially among their peers (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari et al., 2012; Pfeiffer et al., 2018; Rousseau et al., 2005; Sadeh et al., 2008; Thabet et al., 2005). Depending on the intention, or aim of the story-based intervention, the intervention modality changes to meet the needs of a more therapeutic or expressive aim for the participants.

Intervention Components: Professionals v. Trained Non-Professionals. Lastly, variation across study interventions were found for the type of facilitator used. "Professional" facilitators consisted of psychologists, teachers, and social workers (Onyut et al., 2005; Pfeiffer et al., 2018; Rousseau et al., 2005; Ruf et al., 2010; Thabet et al., 2005). "Non-professional" facilitators consisted of trained volunteers (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari et al., 2012; Sadeh et al., 2008).

Of the story-based interventions found, five of the studies utilized professionally trained facilitators (Onyut et al., 2005; Pfeiffer et al., 2018; Rousseau et al., 2005; Ruf et al., 2010; Thabet et al., 2005). The other four studies utilized trained non-professional facilitators (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari et al., 2012; Sadeh et al., 2008). The interventions utilizing non-professional facilitators underwent extensive facilitator training. For example, the facilitators of KIDNET and Meditation-Relaxation Techniques underwent a 76-day training for 10hours per training session throughout a 6-12month period (Catani et al., 2009). Although studies with professionally trained facilitators saw high fidelity in their treatment protocol, it is difficult to compare fidelity across all the studies found within this review because the interventions with trained non-professional facilitators did not measure fidelity. It is important to measure and understand implementation fidelity for story-based interventions because of the critical role facilitators play in guiding individual or group-based intervention components.

Mental Health Outcome Measures. This section will discuss the various outcome evaluation tools to measure the most prominent mental health issues, such as, depression and PTSD symptoms. Table 2 summarizes these evaluative tools and outlines the results from each study.

Across all the identified studies, depression and PTSD symptoms were the main mental health outcomes of focus. All of the studies utilized validated measurement tools for these mental health issues, but added additional non-validated questions to the original measurement tools in order to cater evaluative questions for the specific refugee experiences and the native languages of the participants (Catani et al., 2009; Gupta & Zimmer, 2008; Sadeh et al., 2008). For example, *Rapid-Ed Intervention* translated and back-translated their mental health questionnaire in English to Creole, and specifically focused their questions on the intensity of intrusive images and arousal symptoms from civil war-related traumas for 8-17-year-old refugee children from Sierra Leone (Table 2; Gupta & Zimmer, 2008). Thus, although all studies measured depression and PTSD pre and post-intervention, the measurement tools were catered specifically to the target population and context.

Additionally, there were differences in what the interventions measured for and the length between follow-up among the studies. For example, only four studies tested for co-morbid depression along with PTSD symptoms (Onyut et al., 2005; Pfeiffer et al., 2018; Ruf et al., 2010; Thabet et al., 2005). Whereas the other five studies focused on measuring PTSD symptoms only (Gupta & Zimmer, 2008, 2008; Kalantari et al., 2012; Rousseau et al., 2005; Sadeh et al., 2008). Additionally, out of all the interventions only three interventions conducted follow-up studies up to 12 months after post-test (Kalantari et al., 2012; Onyut et al., 2005; Ruf et al., 2010). The other six studies evaluated pre- and post-tests, 6-9months from the end of the intervention (Catani et al.,

2009; Gupta & Zimmer, 2008; Pfeiffer et al., 2018; Rousseau et al., 2005; Sadeh et al., 2008; Thabet et al., 2005). Due to the context in which these interventions were conducted, many of the studies had difficulty following up with their participants. This ultimately limits the understanding of the long-term effects of story-based interventions.

Storytelling v. Autobiography

Upon exploration of the studies, a distinct difference across story-based interventions is the author and orator of the story. In other words, the interventions can be differentiated by who is telling the story – the child or the facilitator. For this narrative synthesis, *storytelling* is an intervention modality in which a facilitator reads or tells the participating refugee children a story. *Autobiography* is a modality in which facilitators encourage the participants to develop their own autobiographical narrative of the traumatic events the participants encountered.

Of the nine studies, *Creative Expression Workshops* and *Huggy-Puppy Intervention* are classified as storytelling interventions because the facilitators told the participating refugee children about a main character undergoing similar situations as the children (Rousseau et al., 2005; Sadeh et al., 2008). This storytelling modality allowed for the participants to identify with the main character of the story as the characters were depicted as children enduring similar experiences as the children. *Storytelling* interventions were utilized with a younger child refugee population, typically younger than 7 years of age. Specific details of these storytelling modalities can be found on Table 1.

Of the *storytelling* interventions, *Huggy-Puppy Intervention* targeted the youngest refugee population, who were 2-7 years old. The intervention components prompted the young children to take responsibility for a doll after being told that the doll experienced a similar emotional and traumatic situation as them. These efforts were aimed to create an attachment with the doll and

ultimately identify with the doll's similar situation and help work through the traumatic emotions associated with war-related events. Additionally, *Creative Expressions Workshop*, also included a younger age group (7 to 13 years and in elementary school). This intervention aimed to mesh myths, tales, and legends from different cultures to promote appreciation across cultures in to daily school routines at a school in Montreal, Canada (Rousseau et al., 2005). Although these workshops were catered towards a slightly older child range than the *Huggy-Puppy Intervention*, the intervention introduced a character, Dominic, who had similar characteristics and migration experiences as the participating refugee children. The children could interact with Dominc through computer software after being told of Dominic's story to increase self-esteem and prevent emotional and behavioral issues among refugee children (Rousseau et al., 2005). These interventions suggest that *storytelling* interventions are more appropriate for younger children to help facilitate emotional understanding for children who may not have fully developed their language skills to develop narratives and engage in discussions amongst their peers.

The studies that integrated a more *autobiographical* approach to story-based interventions targeted children between 8 to 17 years old (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari et al., 2012; Onyut et al., 2005; Pfeiffer et al., 2018; Ruf et al., 2010; Thabet et al., 2005). Most of the interventions were focused on providing safe spaces for the children to discuss their traumatic experiences either with peers or with professional facilitators. Details of this discussion-focused approach can be found on Table 1. More specifically, KIDNET was facilitated by professional therapists to help the children develop an accurate narrative account of the traumatic experiences in their life and talk about the emotions associated with these feelings (Catani et al., 2009; Onyut et al., 2005; Ruf et al., 2010). Similarly, *Mein Weg*, *Writing for Recovery*, *Rapid-Ed*, and *Group Crisis Interventions* focused on the development of children's own narratives, and facilitated

discussion of their traumatic experiences (Table 1). These such activities require more self-reflection, critical thinking, and stronger language skills to understand the emotions surrounding their traumatic experiences and be able to talk about them. Thus, the *autobiographical* interventions are catered to and most appropriate for older children.

In summary, the difference in *storytelling* and *autobiographical* approaches across story-based interventions can be attributed to the age and developmental stage of the child refuge participants.

Discussion and Conclusions

Introduction

This section will further explore the effects of story-based interventions for refugee children at risk for mental health conditions. Additionally, this section will conclude with the application of this review's findings for a children's book, limitations of this study, and the implications and recommendations for public health.

Interpretation of the Results

Refugee Population, Settings and Context. As mentioned in the results, there were variations in the study and population context. A mix of refugee populations within a study were predominately recruited in higher-income countries. Whereas, targeted refugee populations were recruited from a specific refugee camp or on-going conflict regions. These variations ultimately impact intervention outcome measures. For example, the *Writing for Recovery* intervention targeted bereaved Afghani refugee students 12-18 years old, and found difficulties in long-term follow-up assessment measurements due to changes in participant locations and summer breaks (Kalantari et al., 2012). Similarly, *Stand Alongside* conducted a story-based intervention, but could not conduct formal validated outcome measurements due the negative discourses afflicting the refugee population at the Calais Refugee Camp (Burck & Hughes, 2018). Thus, it is important for future studies to address these potential discrepancies that impact data collection, where harsh living conditions during on-going or post conflicts could potentially impact the ability to measure mental health outcomes of the child refugee participants after a mental health intervention.

Intervention Designs. There were also variations in intervention length, intervention modality (group versus individual), and intervention facilitators that may be attributable to the overarching aim of the intervention activities.

Intervention Length. Shorter, self-paced activities, as seen in *Huggy-Puppy* and *Writing for Recovery*, encourage refugee children to reflect upon their past and express and their traumatic experiences through a different, creative mediums with their peers or in small groups (Kalantari et al., 2012; Sadeh et al., 2008). These forms of self-paced activities encourage children to speak out and express their emotions associated with traumatic experiences, rather than trying to therapeutically alter their emotional reactions to a traumatic event like the one-on-one therapeutic techniques implored by KIDNET (Onyut et al., 2005; Ruf et al., 2010). Future studies are needed to understand the impact and effectiveness of these shorter, self-paced activities versus longer, clinically therapeutic activities.

Intervention Modality. This review illustrates that story-based interventions have been done individual and in groups. Group-based interventions took on a more discussion and expressive format, where the goal was to express their emotions with their peers and not necessarily focused on changing their emotions (Catani et al., 2009; Gupta & Zimmer, 2008; Kalantari et al., 2012; Pfeiffer et al., 2018; Rousseau et al., 2005; Sadeh et al., 2008; Thabet et al., 2005). However, individual-based interventions were more focused on altering emotions associated with traumatic experiences.

Although majority of these group-based interventions found significant decreases in PTSD and depressive symptoms from expressions of their trauma of their trauma amongst their peers, other literature indicate that group-based mental health interventions may not be as effective as individual-based interventions for refugee children (Miller-Graff & Campion, 2016; Pfefferbaum, Newman, & Nelson, 2014; Salloum & Overstreet, 2008). For example, Miller-Graff and Campion (2016) found individual-based therapies to be effective with exposure to concepts of CBT and skill-building framework among children exposed to violence. Similarly, Salloum & Overstreet

(2008) found significant decreases in mental health outcomes for children randomly assigned to individual-based treatment than the children randomly assigned to group-based mental health treatment. Pfefferbaum *et al.* (2014), however, reviews discrepancies among studies for group-based or individual-based interventions for refugee children. The authors caution against exposing children to information and emotions they cannot process and advise tailoring all interventions to a child's developmental and individual needs (Pfefferbaum et al., 2014).

There were two story-based interventions on child refugees that were not included in the formal synthesis due to a lack of validated outcome measures, but nevertheless showed pertinent outcomes. In particular, *#WeSpeak* was an intervention based on the Critical Reflexive Framework. The non-professional facilitators prompted the refugee children from the Demographic Republic of Congo to engage in writing and performing individually written poetry, building a "Tree of Life" relating to their life stories, and body mapping to understand the physical effects of their traumatic experiences. Although there was not a clear validated measurement for this intervention, the researchers of the study quote the participants: *"We love each other and care for each other; ready to die for this group"* (Norton & Sliep, 2018). The authors remark that the participants were able to shift their initial sense of hopelessness and despair through a series of workshops through group settings (Norton & Sliep, 2018). Due to these discrepancies among studies, future studies are required to understand the effectiveness of group or individual story-based interventions for refugee children.

Intervention Facilitator. Professional or non-professional facilitators play a vital role in story-based interventions. Although studies with professional facilitators measured fidelity, the studies with non-professional facilitators did not. Thus, future studies should focus on implementation evaluations catered to understanding fidelity of the intervention, especially when

facilitators may be exposing refugee children to potential emotion-triggering narratives or materials.

Mental Health Outcome Measures. Due to variations in language and settings in which interventions were implemented, many measurement tools were translated and altered to cater evaluative questions for specific refugee experiences. The studies also all measured depression and PTSD symptoms, even though this study did not specifically search for these mental health conditions. However, the studies had difficulty measuring follow-up outcomes with the participants. These variations in measurement tools and limitations for follow-up ultimately limits the ability to conduct meta-analyses due to variations in how depression and PTSD were measured across the studies. Thus, future studies should focus efforts to quantitatively and qualitatively analyze the effects and impact of story-based mental health interventions for refugee children.

Storytelling v. Autobiography. Lastly, of the themes found within this systematic review, *storytelling* versus *autobiographical* approaches provide clear evidence that the story-based intervention should consider the age of the child. Specifically, *storytelling* was shown to be most appropriate for younger children (7 and younger), while *autobiographical* approaches are best for children 8-17. Especially with language barriers and developmental milestones, younger children may have difficulties explaining and discussing their traumatic experiences and emotional status (Dosman, Andrews, & Goulden, 2012). Thus, utilizing characters who have gone through similar traumatic experiences and feel similarly to the children helps the children identify themselves with the character to ultimately problem-solve and learn from their traumatic experiences (Miller & Billings, 1994). More specifically, by three and four years of age, children begin to understand sequential narratives, complex sentences, report past events, and create imaginary roles (Dosman

et al., 2012). Thus, *storytelling* plays to the strengths and abilities of the children younger than 7 years old in accordance with their developmental stages.

Application Across Refugee Populations

Although majority of the interventions targeted their story-based approaches to refugees from the Middle East, this systematic review did not target the searches to a specific refugee population. Story-based interventions, especially autobiographical narrative approaches, were effective on depression, anxiety, and PTSD symptoms, across heterogeneous refugee populations. These strategies found within these nine story-based interventions show promising results in providing a culturally appropriate interventions to improve mental health in children. As mentioned before, westernized mental health approaches have not been effective due to utilization and language barriers (Lustig et al., 2003). However, story-based interventions invite the participants to integrate individual or groups' cultures and backgrounds directly into the intervention strategy; ultimately, playing to the strengths and resilience of the refugee children. Furthermore, oral or written story-telling is an ancient art form in which communities can maintain their cultures, beliefs, and backgrounds throughout generations (Strekalova-Hughes & Wang, 2019). These story-based mental health interventions may provide key strategies in which children are provided safe spaces to creatively express their emotions associated with traumatic experiences.

Additionally, within the western context, children's literature and books can be sources for children's imagination to test their own dilemmas and rework to resolve them (Bearne, 2000, p183). The Western approach to children's literature could be promising to read or tell context and culture-specific stories to younger children, who may not have developed the language skills to discuss or understand their emotions, or to children who have resettled in more Western countries. As the *Huggy-Puggy Intervention* showed and other studies have shown, these forms of story-

based interventions may provide a space in which children can explore, begin to understand specific emotions, or learn the language for a certain emotion. However, with this, the stories must be context and culture specific. The implementers of the *Huggy-Puggy Intervention* made sure to elaborate on the emotions that Huggy was feeling, which was reflective of the emotions the children could be feeling (Sadeh et al., 2008). This approach would take extensive background research and qualitative assessment of children's needs. A storytelling intervention found for this study, but excluded due to a lack of formal intervention measurements, found a promising strategy in identifying and prioritizing children's emotional and mental health needs (Valenzuela-Pérez et al., 2014). This intervention took a similar approach to KIDNET by utilizing flowers, but instead of stones for negative life events and flowers for positive life events, the size of the flowers represented the importance of the need – bigger the flower, the bigger the need. By identifying and prioritizing the needs of a specific refugee population, the future story-based intervention would be better informed of how to develop characters that younger children can identify with.

Children's Books as an Intervention

In addition to exploring existing story-based interventions as the main aim of this review, this section will discuss the applications of the preliminary findings of this review towards informing a children's book.

This systematic review identifies important components, strategies, and potential pitfalls to inform the future development of a children's book as an intervention, rather than a resource alone. With the proper background research on the culture and prioritized mental health needs of a specific refugee population, a children's book intervention may prove to be an effective form of mental health intervention. However, the book cannot stand alone as the only intervention. Similar to the studies found through this systematic review, the *storytelling* intervention should be catered

towards children less than 7 years of age. Due to their lack of language to engage in group-based discussions on their emotions and trauma, a main character of the children's book could be used to discuss emotions and teach coping strategies to the younger children. Additionally, the children's book intervention could be carried out by a trained non-professional facilitator to create a more accessible mental health intervention, similar to the *Huggy-Puppy Intervention* (Sadeh et al., 2008).

Although further background research on the culture and priority of needs for a specific refugee population is required, a preliminary proposal for a children's book has been developed (Appendix 2). The children's book proposal outline was modeled after the APA's Magination Press Publishing Company. The proposal defines Syrian refugee children under 7 years of age as the specific target population for the proposed children's book. The premise of the book will be about a child who discovers a magical piece of candy that controls the emotions of the main character with each lick of the candy. The candy and main character will be specific to Syrian refugee population within the United States. Additionally, the book will need to be pilot tested and iteratively altered to fit the culture and needs of the specific Syrian refugee population.

Overall, this systematic review served as the basis to inform the specific age group and the background research needed to develop a children's book as a mental health intervention for refugee children experiencing depression, anxiety, and PTSD symptoms. Although a small number of studies exist for story-based interventions, the studies found through this systematic review provide promising results for this relatively new approach to aiding refugee children experiencing depression, anxiety, and PTSD symptoms. The promising outcomes of these story-based interventions speak to the potential components and design of a future children's book intervention for refugee children dealing with traumatic war-related emotions.

Conclusions

This section will discuss the strengths and limitations of this review and address the public health implication and recommendations for future research.

Strengths of the Review. In exploration of story-based interventions, the nine studies revealed important topics for future research: refugee population and context, intervention design, and story-telling versus autobiographical. Especially as research has found Westernized mental health approaches are not appropriate across refugee populations, this review reveals a promising, culturally-appropriate method of providing mental health services to child refugees.

It is also interesting to note, this review did not specifically use search terms for mental health outcomes, such as, depression, anxiety, and PTSD symptoms. As mentioned before, these terms introduced miscellaneous literature only pertaining to the particular mental health outcome rather than story-based interventions. However, among the nine studies found, depression and PTSD were the main mental health outcome of focus. This highlights that the most prevalent mental health outcomes for child refugees is depression and PTSD.

Limitations of the Review. This study was also met with limitations specifically due to the lack of rigorous qualitative data. Due to the lack of quantitative and empirical data, this narrative synthesis is less comprehensive, lack information about reliability, generalizability, and validity, and does not offer robust analytic approaches. However, this study aimed to follow a methodology determined a priori and based on the PRISMA and Narrative Synthesis Guidelines set forth from extensively utilized literature (Booth et al., 2016; Moher et al. 2009; Popay et al., 2006; Snilstveit et al., 2012). As this study was primarily an exploration of literature on story-based mental health interventions for refugee children, future research is needed to empirically understand the impacts and effectiveness of story-based interventions specifically for refugee

children afflicted by mental health conditions. Future researchers should consider the significance and impact of location and context of refugee population recruitment and intervention implementation, the intervention design, and the modes of story-based interventions (storytelling verses autobiographical).

Implications and Recommendations in Public Health.

Implications. Under the criteria of this systematic review, only nine studies were identified as story-based interventions to aid refugee children experiencing depression and PTSD symptoms. The limited number of papers indicate that there is still a gap in the literature to fully understand the effects and impacts of story-based intervention specifically for refugee children afflicted by mental health outcomes, such as, depression and PTSD symptoms. Although previous studies have identified similar story-based interventions like Bibliotherapy, children's literature, and NET, the current literature has a limited understanding of these Westernized approaches for refugee populations. Especially with barriers to mental health service utilization in regions of conflict, it is important to identify culturally-appropriate mental health interventions for a highly vulnerable population like child refugees. Many studies have identified the negative mental health impacts of traumatic displacement events for children, and if left unresolved, the negative impacts may manifest later on into adulthood (M Fazel, 2002; Lustig et al., 2003; Silove et al., 1997). Thus, future public health research and interventions should strive for more culturally-appropriate mental health strategies to bolster mental health utilization and destigmatize mental health for refugee communities.

Recommendations. Future studies should aim to empirically analyze the effectiveness and efficacy of story-based interventions for refugee children. Future studies should also consider conducting a meta-analysis to empirically measure the impacts and effectiveness of story-based

interventions on prominent mental health issue afflicting child refugees, such as, depression, anxiety, and PTSD.for prominent mental health issue afflicting child refugees, such as, depression, anxiety, and PTSD. Although there is a gap in the literature about the potential effectiveness and impacts of children's books on war-related traumas, this preliminary systematic research shows promising results and directions to develop a culturally appropriate and strengths-based mental health intervention for refugee children at risk for mental health issues.

In conclusion, this systematic narrative synthesis finds three main themes across existing story-based interventions: refugee population and context, intervention design, and storytelling versus autobiographical. These themes identify areas for future research, especially as story-based interventions for refugee children is a relatively new area of research. This exploration of the literature also provides preliminary information to develop a children's book geared for refugee children afflicted by mental health conditions due to traumatic displacement events. Future research should aim to investigate the effectiveness and impact of the three themes of this review to better serve our ever-growing refugee communities.

References

Ager, A., & Metzler, J. (2017). Where there is no intervention: Insights into processes of resilience supporting war-affected children. *Peace and Conflict: Journal of Peace Psychology, 23*(1), 67–75. https://doi.org/10.1037/pac0000211

Almqvist, K., & Brandell-Forsberg, M. (1997). Refugee children in Sweden: Post-Traumatic Stress Disorder in Iranian preschool children exposed to organized violence. *Child Abuse & Neglect*, *21*(4), 351–366. https://doi.org/10.1016/S0145-2134(96)00176-7

Association, A. P. (2013). *Diagnostic and Statistical Manual of Mental Disorders (DSM-5®)*. American Psychiatric Pub.

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

Berg-Cross, G., & Berg-Cross, L. (1976). Bibliotherapy for Young Children. *Journal of Clinical Child Psychology*, *5*(2), 35. https://doi.org/10.1080/15374417609532709

Bogic, M., Njoku, A., & Priebe, S. (2015). Long-term mental health of war-refugees: a systematic literature review. *BMC International Health and Human Rights*, *15*(1). https://doi.org/10.1186/s12914-015-0064-9

Burck, C., & Hughes, G. (2018). Challenges and impossibilities of ‘standing alongside’ in an intolerable context: Learning from refugees and volunteers in the Calais camp. *Clinical Child Psychology and Psychiatry*, *23*(2), 223–237. https://doi.org/10.1177/1359104517742187

Catani, C., Kohiladevy, M., Ruf, M., Schauer, E., Elbert, T., & Neuner, F. (2009). Treating children traumatized by war and tsunami: a comparison between exposure therapy and meditation-relaxation in North-East Sri Lanka. *BMC Psychiatry*, *9,* Article 22. http://dx.doi.org.proxy.library.emory.edu/10.1186/1471-244X-9-22

Çeri, V., Nasıroğlu, S., Ceri, M., & Çetin, F. Ç. (2018). Psychiatric Morbidity Among a School Sample of Syrian Refugee Children in Turkey: A Cross-Sectional, Semistructured, Standardized Interview-Based Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *57*(9), 696-698.e2. https://doi.org/10.1016/j.jaac.2018.05.019

Cohen, L. J. (1987). Bibliotheraphy. *Journal of Psychosocial Nursing & Mental Health Services; Thorofare*, *25*(10), 20–24.

Dosman, C. F., Andrews, D., & Goulden, K. J. (2012). Evidence-based milestone ages as a framework for developmental surveillance. *Paediatrics & Child Health*, *17*(10), 561–568. https://doi.org/10.1093/pch/17.10.561

Eames, V., Shippen, C., & Sharp, H. (2016). The Team of Life: A narrative approach to building resilience in UK school children. *Educational and Child Psychology*, *33*(2), 57–68. (2016-40016-005).

Eppler, C., Olsen, J. A., & Hidano, L. (2009). Using Stories in Elementary School Counseling: Brief, Narrative Techniques. *Professional School Counseling*, *12*(5), 387–391. https://doi.org/10.5330/PSC.n.2010-12.387

Fazel, M. (2002). The mental health of refugee children. *Archives of Disease in Childhood, 87*(5), 366–370. https://doi.org/10.1136/adc.87.5.366

Fazel, Mina, Reed, R. V., Panter-Brick, C., & Stein, A. (2012). Mental health of displaced and refugee children resettled in high-income countries: risk and protective factors. *The Lancet*, *379*(9812), 266–282. https://doi.org/10.1016/S0140-6736(11)60051-2

Gupta, L., & Zimmer, C. (2008). Psychosocial intervention for war-affected children in Sierra Leone. *British Journal of Psychiatry*, *192*(03), 212–216. https://doi.org/10.1192/bjp.bp.107.038182

Hope, J. (2008). "One Day We Had to Run": The Development of the Refugee Identity in Children's Literature and its Function in Education. *Children's Literature in Education*, *39*(4), 295–304. https://doi.org/10.1007/s10583-008-9072-x

Kalantari, M., Yule, W., Dyregrov, A., Neshatdoost, H., & Ahmadi, S. J. (2012). Efficacy of writing for recovery on traumatic grief symptoms of Afghani refugee bereaved adolescents: A randomized control trial. *Omega: Journal of Death and Dying*, *65*(2), 139–150. https://doi.org/10.2190/OM.65.2.d

Lincoln, A. K., Lazarevic, V., White, M. T., & Ellis, B. H. (2016). The Impact of Acculturation Style and Acculturative Hassles on the Mental Health of Somali Adolescent Refugees. *Journal of Immigrant and Minority Health*, *18*(4), 771–778. https://doi.org/10.1007/s10903-015-0232-y

Lustig, S. L., Maryam Kia-Keating, Wanda Grant Knight, Paul Geltman, Heidi Ellis, J David Kinzie, … Glenn N Saxe. (2003). Review of Child and Adolescent Refugee Mental Health. *Journal of the American Academy of Child and Adolescent Psychiatry.*, *43*(1), 24–36. https://doi.org/10.1097/00004583-200401000-00012

Maranga-Musonye, M. (2010). *Images of Peace, Conflict and Displacement in Refugee Children's Narratives: The Cases of Nairobi and Kakuma*. 224.

McPherson, J. (2012). Does Narrative Exposure Therapy Reduce PTSD in Survivors of Mass Violence? *Research on Social Work Practice*, *22*(1), 29–42. https://doi.org/10.1177/1049731511414147

Miller, K. E., & Billings, D. L. (1994). Playing to grow: A primary mental health intervention with Guatemalan refugee children. *American Journal of Orthopsychiatry*, *64*(3), 346–356. https://doi.org/10.1037/h0079548

Miller-Graff, L. E., & Campion, K. (2016). Interventions for Posttraumatic Stress With Children Exposed to Violence: Factors Associated With Treatment Success. *Journal of Clinical Psychology*, *72*(3), 226–248. https://doi.org/10.1002/jclp.22238

Neuner, F., Catani, C., Ruf, M., Schauer, E., Schauer, M., & Elbert, T. (2008). Narrative Exposure Therapy for the Treatment of Traumatized Children and Adolescents (KidNET): From Neurocognitive Theory to Field Intervention. *Child and Adolescent Psychiatric Clinics of North America*, *17*(3), 641–664. https://doi.org/10.1016/j.chc.2008.03.001

Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., & Elbert, T. (2004). A Comparison of Narrative Exposure Therapy, Supportive Counseling, and Psychoeducation for Treating Posttraumatic Stress Disorder in an African Refugee Settlement. *Journal of Consulting and Clinical Psychology*, *72*(4), 579–587. https://doi.org/10.1037/0022-006X.72.4.579

Norton, L., & Sliep, Y. (2018). #WE SPEAK: exploring the experience of refugee youth through participatory research and poetry. *Journal of Youth Studies*, 1–18. https://doi.org/10.1080/13676261.2018.1548758

Onyut, L. P., Neuner, F., Schauer, E., Ertl, V., Odenwald, M., Schauer, M., & Elbert, T. (2005). Narrative Exposure Therapy as a treatment for child war survivors with posttraumatic

stress disorder: Two case reports and a pilot study in an African refugee settlement. *BMC Psychiatry*, *5*. https://doi.org/10.1186/1471-244X-5-7

Pfefferbaum, B., Newman, E., & Nelson, S. D. (2014). Mental Health Interventions for Children Exposed to Disasters and Terrorism. *Journal of Child and Adolescent Psychopharmacology*, *24*(1), 24–31. https://doi.org/10.1089/cap.2013.0061

Pfeiffer, E., Sachser, C., Rohlmann, F., & Goldbeck, L. (2018). Effectiveness of a trauma-focused group intervention for young refugees: a randomized controlled trial. *Journal of Child Psychology and Psychiatry*, *59*(11), 1171–1179. https://doi.org/10.1111/jcpp.12908

Reavell, J., & Fazil, Q. (2017). The epidemiology of PTSD and depression in refugee minors who have resettled in developed countries. *Journal of Mental Health*, *26*(1), 74–83. https://doi.org/10.1080/09638237.2016.1222065

Refugees, U. N. H. C. for. (n.d.). What is a refugee? Retrieved February 13, 2019, from UNHCR website: https://www.unhcr.org/what-is-a-refugee.html

Rousseau, C., Lacroix, L., Singh, A., Gauthier, M.-F., & Benoit, M. (2005). Creative Expression Workshops in School: Prevention Programs for Immigrant and Refugee Children. *The Canadian Child and Adolescent Psychiatry Review*, *14*(3), 77–80.

Ruf, M., Schauer, M., Neuner, F., Catani, C., Schauer, E., & Elbert, T. (2010). Narrative exposure therapy for 7- to 16-year-olds: A randomized controlled trial with traumatized refugee children. *Journal of Traumatic Stress*, *23*(4), 437–445. https://doi.org/10.1002/jts.20548

Sadeh, A., Hen-Gal, S., & Tikotzky, L. (2008). Young Children's Reactions to War-Related Stress: A Survey and Assessment of an Innovative Intervention. *PEDIATRICS*, *121*(1), 46–53. https://doi.org/10.1542/peds.2007-1348

Salloum, A., & Overstreet, S. (2008). Evaluation of Individual and Group Grief and Trauma Interventions for Children Post Disaster. *Journal of Clinical Child & Adolescent Psychology*, *37*(3), 495–507. https://doi.org/10.1080/15374410802148194

Schauer, E., Neuner, F., Elbert, T., Ertl, V., Onyut, L. P., Odenwald, M., & Schauer, M. (2004). *Narrative Exposure Therapy in Children: a Case Study*. *2*(1), 15.

Silove, D., Sinnerbrink, I., Field, A., Manicavasagar, V., & Steel, Z. (1997). Anxiety, depression and PTSD in asylum-seekers: Assocations with pre-migration trauma and post-migration stressors. *British Journal of Psychiatry*, *170*(04), 351–357. https://doi.org/10.1192/bjp.170.4.351

Singh, S., Sylvia, M. R., & Ridzi, F. (2015). Exploring the literacy practices of refugee families enrolled in a book distribution program and an intergenerational family literacy program. *Early Childhood Education Journal*, *43*(1), 37–45. https://doi.org/10.1007/s10643-013-0627-0

Snilstveit, B., Oliver, S., & Vojtkova, M. (2012). Narrative approaches to systematic review and synthesis of evidence for international development policy and practice. *Journal of Development Effectiveness*, *4*(3), 409–429. https://doi.org/10.1080/19439342.2012.710641

Strekalova-Hughes, E., & Wang, X. C. (2019). Perspectives of Children From Refugee Backgrounds on Their Family Storytelling as a Culturally Sustaining Practice. *Journal of Research in Childhood Education*, *33*(1), 6–21. https://doi.org/10.1080/02568543.2018.1531452

Summer, D. (1999). A critique of seven assumptions behind psychological trauma programmes in war-a€ ected areas. *Social Science*, 14.

Summerfield, D. (2000). Childhood, War, Refugeedom and 'Trauma': Three Core Questions for Mental Health Professionals. *Transcultural Psychiatry*, *37*(3), 417–433. https://doi.org/10.1177/136346150003700308

Thabet, A. A., Vostanis, P., & Karim, K. (2005). Group crisis intervention for children during ongoing war conflict. *European Child & Adolescent Psychiatry*, *14*(5), 262–269. https://doi.org/10.1007/s00787-005-0466-7

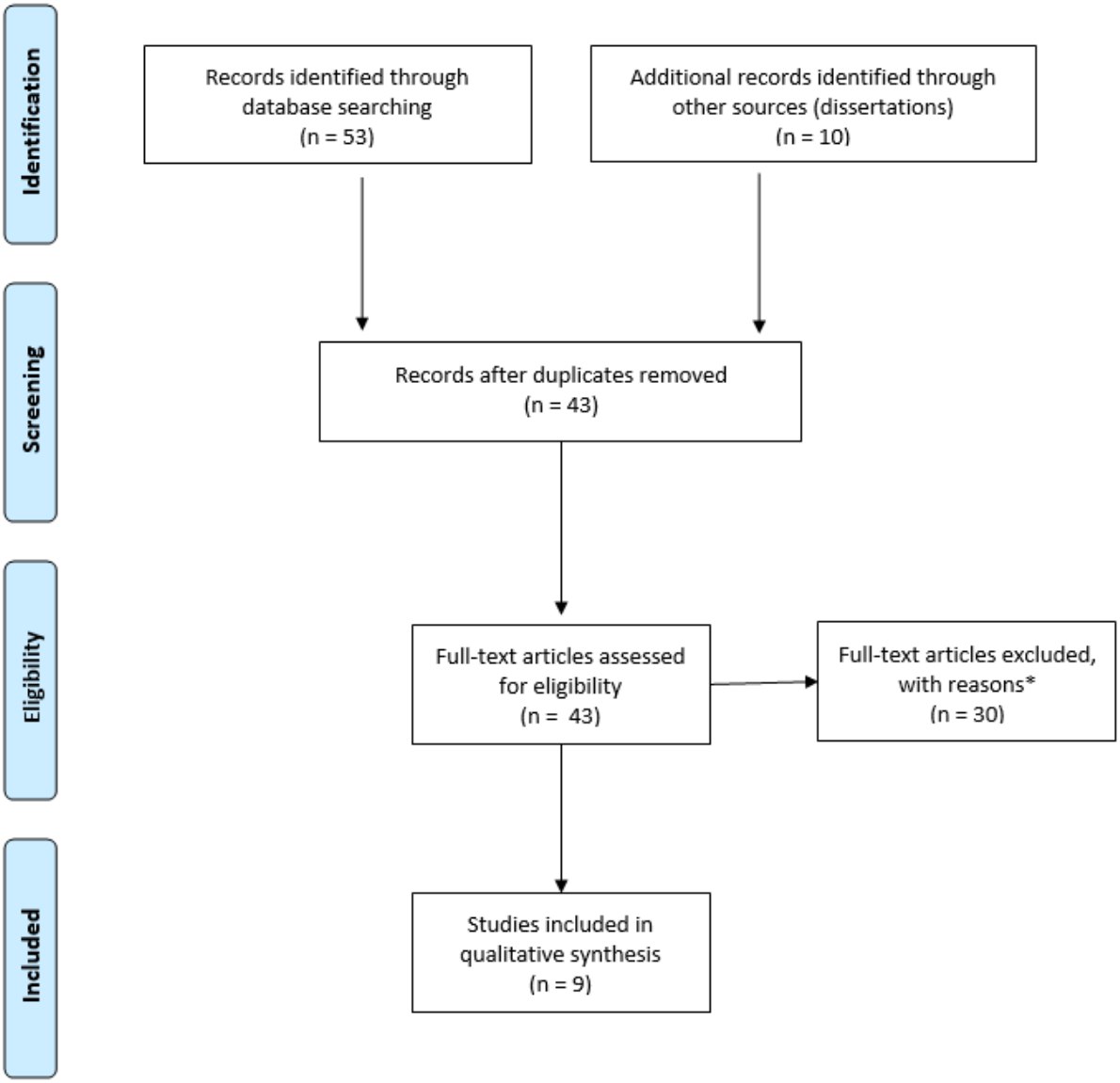
Valenzuela-Pérez, A., Couture, M., & Arias-Valenzuela, M. (2014). Exploring refugee children's psychological needs through storytelling: A case study of two Latino American children. *Journal of Latina/o Psychology*, *2*(3), 172–186. https://doi.org/10.1037/lat0000022

Veronese, G., Cavazzoni, F., & Antenucci, S. (2018). Narrating hope and resistance: A critical analysis of sources of agency among Palestinian children living under military violence. *Child: Care, Health and Development*, *44*(6), 863–870. https://doi.org/10.1111/cch.12608

Watters, C. (2001). Emerging paradigms in the mental health care of refugees. *Social Science & Medicine*, *52*(11), 1709–1718. https://doi.org/10.1016/S0277-9536(00)00284-7

Appendix 1

Figure 1: Diagram of Identified Literature (adapted from PRISMA 2009)



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

***** The exclusionary criteria are on page 12.

Table 1: Summary of Study Population and Intervention Components

Study	Refugee Population(s) and Context	Intervention Components
Catani et al. (2009)	8-14-year-old children (31 total participants) from Sri Lanka (Village of Manadkadu in Vadamarachichi region of Northern Sri Lanka) Population suffered tsunami and civil war within the North East	Administered KIDNET and Meditation-Relaxation techniques for six, 60-90minute sessions for two weeks. • KIDNET – children-focused Narrative Exposure Therapy (NET). Sessions have children create drawing and timelines of their life events to depict and construct personal narratives and redefine their emotions associated with traumatic events (see Onyut et al. 2005 for details) • Meditation-Relaxation Techniques – provided breathing and mantra chanting skills for children to raise awareness of bodily reactions to traumatic events and contact painful feelings, images, and thoughts from past without avoidance strategies that exacerbate PTSD symptoms. o Ice Cream Body Relaxation – a technique where the children imagine their bodies as ice cream – cold and hardened due to stress and traumatic experiences. Then, through breathing, mantras, and muscle relaxation, they begin to "melt" away their stresses and emotions associated with the traumatic experiences.
Gupta and Zimmer (2008)	8-17-year-old children (306 total participants) from Sierra Leone Participants randomly selected from base camp for refugees fleeing Revolutionary United Front Rebel Attack in 1999	Rapid-Ed Intervention took place for eight, 60minute sessions for four weeks. • Based on General Stress Theory and Trauma Healing Modules to reduce child's emotional distress and PTSD symptoms • Components: o Small group discussions on war-related stories o Drawing pictures of worst memories and sharing pictures in small group discussions o Write essays of experiences o Role-play, sing/perform traditional dances, play instruments o Participate in recreational activities four days per week for 20 minutes/session
Kalantari et al. (2012)	12-18-year-old children (88 total participants) from Afghanistan (Qom, a religious city near University of Isfahan in Iran) Recruited bereaved Afghani students with improper housing and healthcare access. All students spoke Farsi as their first language.	Writing for Recovery was administered for three consecutive days with two, 15minute sessions per day. • The two sessions per day were divided by a 15minute break in between. • The children were provided a series of unstructured to more structured writing prompts to reflect on their inner most feelings and traumatic events to providing advice for others who may be in similar situations as themselves. Last writing task asks students to imagine themselves 10 years from now and look back at their current experiences.

Onyut et al. (2005)	13-17-year-old children (6 total participants) from Somali ethnic origins located in the Nakivale refugee settlement in Uganda	KIDNET conducted as one-on-one sessions for four to six sessions for 1-2hours per session. • Session 1: Patient prompted to draw any picture that comes to mind • Session 2: Child was given rope, stones, and flowers to create a timeline of their lives. The child aligns the stones and flowers on the rope to depict certain events. Stones signify traumatic or negative experiences, and flowers depict positive events. Then drew out timeline and added titles for each event, both positive and negative. • Session 3 – 5: Participant was asked to verbally relay a detailed autobiography of their lifeline utilizing the timeline created from stones and flowers. The therapist documents and prompts child to relay details of their emotions and behavioral reactions from each event. The autobiographical narrative was revised and modified throughout each session until the document was complete with the correct and detailed recounts of events and emotions. • Session 6: The sessions end with an extension of their narratives to include their hopes and aspirations of the future through the use of the flowers representing positive events. The drawings were included into the drawing of the timeline and the final narrative document. Then the patient is prompted to draw one final picture of anything they wanted to compare with the first drawing from the first session.
Pfeiffer et al. (2018)	13-21-year-olds (99 total participants) majority from Afghanistan (others from: Syria, Gambia, Somalia, Iran, Eritrea, Senegal, Iraq, Ethiopia, Pakistan, Angola, Nigeria or Ivory Costa, Ghana, Guinea, Guinea-Bissau or Kurdistana). Participants had moderate to severe PTSD symptoms. Study took place in Southern Germany and participants had lived in Germany for at least 6 months and have basic command of the German language	Mein Weg was administered for six, 90minute sessions per week. • Session 1: Provide introduction to psychoeducation, relaxation, PTSD, and breathing exercises. • Session 2: Discuss psychoeducation and practice breathing in groups. Then, individually write Narrative 1 about “my life in my home country” and “my way to Germany”. After writing narratives, the students discuss in groups. • Session 3: The students revise Narrative 1, then write Narrative 2 about “my worst experience”. Again, after writing the narratives, the students discuss in groups. • Session 4: The students re-read Narratives 1 and 2. Then write Narrative 3 called “In Germany – In Safety” to re-establish a sense of safety in Germany away from their home country. Then, the students discuss in groups • Session 5: The students revise and re-read Narratives 1-3, then individually write a letter to a fellow unaccompanied refugee minor who is about to migrate. The students integrate their own resources and advice. After, the students discuss and share in groups • Session 6: Sessions end with a graduation where the students look forward into their future, undergo relapse-prevention, and self-efficacy improvement.

Rousseau et al. (2005)	7-13-year-old refugee and immigrant children (138 total participants) majority from South America, Africa, and Asia attending elementary school in Montreal, Canada	Creative Expression Workshops were integrated into regular school days and implemented by transcultural child psychiatry team for 12 weekly 60minute sessions throughout two school semesters. • Activity 1: Students read myths, tales, and legends from different cultures to promote appreciation of various cultures. The stories were picked by facilitators. • Activity 2: Children told story of a character, Dominic, who has been on a migration journey. Dominic was presented via interactive computer software. The story included details of the character's past, the migration, arrival to the host country, and the future. The child would indicate via computer software if they acted or felt like Dominic. • Activity 3: Memory Patchwork – children bring own myths and tales from their families and community that relates to their homeland, historical accounts, or family stories. This bridges the gap between home and school and facilitates parent-child interaction.
Ruf et al. (2010)	Average 11.5-year-old children (26 total participants) from Turkey, Syria, Russia, Georgia, and Germany. The participants experienced an average of 4 to 5 traumatic events The study was conducted at the Research-Outpatient Clinic for Refugees - University of Konstanz, Germany	Tested efficacy of KIDNET procedures according to Onyut et al. (2005). The intervention utilized trained therapists to employ empathetic understanding, active listening, congruency, and unconditional positive regard. The narrative exposure was intended to be more supportive than directing or guiding.
Sadeh et al. (2008)	2-7-year-old young children living with their families at the Nitzanim camp in south Israel. Families fled from war between Israeli Defense Forces and Hezbollah in Northern Israel and Southern Lebanon in 2006.	Huggy-Puppy Intervention was conducted two days before the end of the war and was carried out for 3 weeks. • Standard Educational Intervention – parent education on how to return to routine life after the war and how to address their children's fears. Parents taught not to overexpose their children to scary sights and events. Given after initial recruitment interview and provided written summaries of guidelines. • Huggy-Puppy – small cocker spaniel dog with long legs and straps to place the doll in a hugging position around a child's torso. o Trained facilitators tells groups of children the story of Huggy the Puppy: *This is my friend Huggy. Huggy is usually a very happy puppy. Right now, he looks a little sad and scared. Can you guess why he might be sad?" After the child replies, the story continues. "He is sad because he is very far away from his home and he does not have any good friends. He likes to be hugged a lot but he has no one to take care of him. Do you think you can be his good buddy, take care of him, hug him a lot, and take him to bed with you when you go to sleep?* o Once the child agrees, the doll is given to the child, then the facilitator demonstrates how to hug and be hugged by the doll. Each child is reminded about their responsibility to care for the doll.

Thabet et al. (2005)	9-15-year-old children (154 total participants) from six different refugee camps in Gaza Strip, a narrow zone between Israel and Egypt. The intervention was conducted during ongoing war conflict in North Gaza, Mid Zone, Khan Younis, and Rafah with children who self-reported moderate to severe PTSD reactions.	Group Crisis Intervention was conducted with two intervention groups, and one control group. • Group 1: Crisis Intervention – conducted in 7 weekly sessions (adjusted depending on conflict). The child psychiatrists and professional facilitators prompted the children to free draw, talk about their traumatic events and feelings through writing, storytelling, games, and role-playing. • Group 2: Teacher Education – taught four training sessions to teachers at the refugee camps to learn the meaning of trauma, the consequences, and how to deal with behavioral problems due to impacts of trauma. • Group 3: No intervention – those in this group was provided the opportunity to participate in intervention after follow-up assessment.

Table 2: Summary of Intervention Outcome Measures and Results

Study	Outcome Measurements	Results
Catani et al. (2009)	UCLA PTSD Index for DSM-IV (UPID) measured PTSD diagnosis with five additional questions for: • Social relationships, family life, and general life satisfaction • Tsunami experience • Somatic complaints in past 4 weeks Post-test conducted by blind counselors 4-5weeks after last treatment session. Follow-up conducted via interviews 6months after treatment	Significantly reduced PTSD symptoms and impairment in functioning at one-month post-test and remained stable over time via UPID scores. At 6month follow-up, 81% recovery rates in KIDNET group and 71% recovery rate in Meditation-Relaxation Techniques group
Gupta and Zimmer (2008)	Pre-Test – Non-validated questionnaire in Creole through 50-75minute interviews • Part 1: Basic demographics • Part 2: Exposure to war events (34 items) • Part 3: Impact of Events Scale (intrusive images, avoidance of reminders, arousal symptoms and other PTSD symptoms on 4point scale) • Part 4: Eight pilot items on child's world view and future perspectives Post-Test – Non-validated questionnaire in Creole through 20-30minute interviews • Part 1: Demographics • Part 2: Subjective assessment of children's feelings before and after intervention • Part 3: revised Impact of Events Scale to assess prevalence and intensity of PTSD symptoms after intervention Univariate state through Epi-Info; Bi & Multivariate analysis through SAS – T-tests used to assess differences between pre and post-tests	Pre-test – 95% though of event even when they didn't want to, 71% had recurrent pictures about worst life event and increased arousal symptoms. 72% had nightmares about the violence they witnessed and 74% worried they would not survive into adulthood. Positive-dose response between high exposure to war-events and higher avoidance. Post-test – 63% reduction in intrusive images. 73.4% stated they felt "better" after sharing their bad memories about the war. 95% reported better concentration in school, and 96% reported diminished nightmares/bad dreams.

Kalantari et al. (2012)	Traumatic Grief Inventory for Children (TGIC) – 23 item, self-report questionnaire where higher scores indicate more severe grief. Translation, back translation, and committee approach used for translation of Farsi. Same measurement tool used for pre and post-test and 6month follow-up.	Experimental group showed significant decrease in average TGIC score from pre and post-tests. Control group showed increase in average TGIC score from pre and post-tests 6month follow up was impossible because children left school for 3month holiday and children encountered additional socioeconomic stressors during summer holiday that may impact the final outcome.
Onyut et al. (2005)	Screening for PTSD and Co-morbid depression: Posttraumatic Diagnostic Scale and Hopkins Symptom Checklist – diagnoses were validated through Composite International Diagnostic Interview (CIDI) Post-test conducted 4weeks after last treatment session, and follow-up conducted at 9months.	Each of the 6 patients, with clinically significant depression and PTSD before the study, showed a significant decrease in symptoms across time through a mixed model analysis ($F(2,5)=15.45$, $p<0.01$). After nine months, four of the six patients no longer met the criteria for PTSD and the remaining two had borderline scores.
Pfeiffer et al. (2018)	Primary Outcome: Child and Adolescent Trauma Screen (CATS)– self-report of the severity of PTSD symptoms Secondary Outcome: Patient Health Questionnaire (PHQ) – self-report of patient's frequency of depression symptoms Child Post-Traumatic Cognitions Inventory – short version Proxy CATS – patient PTSD symptom measure via caregiver perception	Intention-to-treat analysis showed Mein Weg was superior to Usual Care (Control) group regarding symptoms improvement for self-reported PTSD (Mein Weg: $d = .61$, UC: $d = .15$) and depression (Mein Weg: $d = .63$, UC: $d = -.06$) utilizing CATS and PHQ, respectively. However, no significant improvements found from Child Pos-Traumatic Cognitions Inventory or Proxy CATS.
Rousseau et al. (2005)	Teacher's Report Form (TRF) – teacher's report of child's internalizing and externalizing symptoms (pre and posttest) Piers-Harris Children's Self-Concept Scale (CSCS) – administered by interviewers to assess children's self-esteem (popularity and happiness and satisfaction)	The post-test TRF provided mixed evidence. Experimental group with integrated classes had a significant difference for internalizing symptoms than the control group. However, the mean level of symptoms was equal almost equal between Experimental and Control groups of regular classes. Experimental (workshop-integrated) group reported significantly decreased mean level of mental health symptoms and higher mean levels of feelings of self-esteem based on post - CSCS

Ruf et al. (2010)	UCLA PTSD Index for DSM-IV (validated in German) with additional eight questions for everyday function in school with family and friends – to test clinical significance Raven's Progressive Matrices – test for reasoning in visual modality Mini International Neuropsychiatric Interview for Children and Adolescents – screening tool for comorbid mental health disorders Post-tests conducted at 4weeks posttreatment, follow-ups conducted at 6months and 12months.	KIDNET group showed clinically and statistically significant reductions in symptoms than Waitlist (Control) group. Severity of PTSD symptoms based on UPID resulted in 60% decrease with 1.9 effect size ($t(11)=4.20$, $p=0.001$), with no significant change in Waitlist group. Significant improvement in avoidance, intrusion, hyperarousal, and functional impairment amongst KIDNET group. Nonverbal cognitive functioning was statistically significant for the Raven's Progressive Matrices with one-tailed test assumptions. After 6months posttreatment, only 17% of children presented with PTSD. Differences in comorbid disorders at 6month follow-up did not reach significance. Sustainable improvement in three measurements at 12month follow-up.
Sadeh et al. (2008)	Stress Reaction Check List (SRCL) – Parent-reported child's stress reactions and PTSD manifestations based on DSM-IV Follow-up Parent Interview – 3 weeks after start of intervention utilizing SRCL and five additional questions	Pre-treatment: children presented with severe forms of separation anxiety, and higher exposure levels were associated with higher numbers of severe reactions. Post-treatment: Significant decrease of encopresis and enuresis from baseline to follow-up. Stronger attachment to Huggy, the doll, were associated with lower values of SRCL at follow-up.
Thabet et al. (2005)	Child Post Traumatic Stress Reaction Index (CPTSD-RI) – 20 item self-report to assess intrusion, avoidance, and arousal (PTSD symptoms) – validated to use with Arab culture Children's Depression Inventory (CDI) – standardized self-report of depression since previous two weeks. Post-test conducted 3months after intervention	No statistical significance between experimental and control groups for PTSD symptoms and depressions based on CPTSD-RI or CDI, respectively.

Appendix 2

Preliminary Proposal for Magination Press

Synopsis. Outbreaks of war and political unrest around the world have left children and their families vulnerable to traumatic and stressful experiences. These experiences have resulted in high levels of depression, anxiety and PTSD symptoms among refugee children (Fazel et al., 2012; Reavell & Fazil, 2017). Unresolved mental health issues in young developing children may manifest into maladaptive behaviors later on into adulthood (Fazel, 2002). More specifically, a recent cross-sectional study in Turkey identified that among Syrian refugee children, 22% were diagnosed with major depressive disorder, 31.7% with anxiety disorders, and 22% with PTSD (Çeri, Nasıroğlu, Ceri, & Çetin, 2018). Unfortunately, mental health interventions for refugee children have not been effective because Westernized approaches have led to barriers in service utilization, stigma, and language (Lustig et al., 2003). However, more recent studies have identified story-based interventions as a more culturally appropriate methodology in which to play to the strengths and resilience of refugee children. These methodologies involve storytelling or autobiographical approaches. *Storytelling* involves a trained facilitator reading or telling a story of a main character who experiences similar traumatic events and emotions as the refugee children. *Autobiographical* approaches involve a facilitator supporting an individual or groups of refugee children to help construct a detailed narrative of their traumatic experiences and emotions. These methodologies help to reconstruct traumatic displacement experiences and help refugee children at risk for mental health issues.

The overall aim of this children's book is to provide a story-based, storytelling intervention specifically for Syrian refugee children afflicted by depression, anxiety, and PTSD symptoms. The book will be a presented as a picture book, with illustrations drawn by local Syrian artists depicting

locations and environments, such as, a traditional Syrian school, home, and birthday celebrations involving candies like raha.

Brief Story Plot. Abu has finally turned five years old. At his birthday party, he was gifted an entire box full of raha, his favorite candy. However, the gifted raha had a magical spell casted upon it. After each bite of raha, his mood would suddenly change from happy to sad, then to angry, and back and forth. Abu also has frequent nightmares and gets scared of loud noises. At first, he doesn't know how to deal with his ever-changing emotions and fears. Until he confides in his trusted school teacher. The teacher then teaches Abu about breathing techniques and helps Abu to practice every day (التكرار يعلّم الحمار., *it-tikraar yi3allim il-humaar* - Repetition can teach even a donkey). So that Abu is able to regulate his ever-changing emotions while still enjoying his favorite candy. The skills highlighted in this story introduces regulation of emotions, breathing techniques, and consistent practice of mental health coping strategies.

Audience. This current systematic narrative synthesis revealed that children's books may serve as a promising story-based mental health intervention for children seven years and younger. Across nine systematically identified story-based interventions, *storytelling* allowed young refugee children (younger than 7 years old) to identify with the emotions and experiences of the main character of the story to work through their own emotions from traumatic experiences. Older refugee children (between 8-17 years old) benefited more from intervention components facilitating autobiographical narratives, group discussions and self-reflections. Especially with language barriers and developmental milestones, younger children may have difficulties explaining and discussing their traumatic experiences and emotional status (Dosman et al., 2012). Thus, utilizing characters who have gone through similar traumatic experiences and feel similarly to the children helps the children identify themselves with the character to ultimately problem-

solve and learn from their traumatic experiences (Miller & Billings, 1994). More specifically, by three and four years of age, children begin to understand sequential narratives, complex sentences, report past events, and create imaginary roles (Dosman et al., 2012). Thus, *storytelling* plays to the strengths and abilities of the children younger than 7 years old in accordance with their developmental stages. Because this book is catered to younger children, the plot line will be largely conveyed through pictures rather than words and will be read to the children by a facilitator or parent. Recent research have captured that children's book interventions additionally teach reading literacy to both parents and children, while helping children bridge connections between their native cultures and the United States (Lincoln et al., 2016; Singh et al., 2015; Strekalova-Hughes & Wang, 2019).

This proposed children's book is aimed for Syrian refugee children resettled in the United States and will be published in Arabic and English. With the growing number of Syrian refugees resettling in the United States, and the prevalence of mental health conditions among those resettled in the States, mental health needs to be prioritized for child refugees to prevent negative manifestations of mental health conditions later on into adulthood (Çeri et al., 2018; Lustig et al., 2003).

Market. The original market for this children's book is to local, non-governmental organizations that help Syrian families resettle in the United States. The book will be disseminated to newly resettled Syrian families. Additionally, the APA's *Magination Press* includes a wide range children's books across multiple topical areas and age groups. The books published from *Magination Press* have an overarching aim of educating and providing resources for topics, such as gun control, anxiety, and potty training, for parents, therapists, and social workers. However, among the published books at *Magination Press*, there is a lack of children's books for refugee

children. Thus, incorporating children's books specific to the experiences of refugee children may be a great education tool for therapists, teachers, parents, and social workers, or other professions working with refugee children.