The Role Of Social Supports And Copying Strategies In Mediating The Impact Of Civil War On Libyan Children's Mental Health

Thesis submitted for the degree of

Doctor of Philosophy at the University of Leicester

by

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March 2020

Abstract

The Role Of Social Supports And Copying Strategies In Mediating The Impact Of Civil War On Libyan Children's Mental Health

Background: The vast majority of evidence is based on the high rates of mental health problems among refugee children and the risk factors involved; there is less evidence with regard to internally displaced and protective factors, particularly when simultaneously considering both individual and environmental factors.

Aims: The study sought to investigate: 1. the association between exposure to civil war trauma and mental health problems among displaced parents and children; and 2. whether coping strategies and perceived social support moderated this association.

Method: One hundred internally displaced children in Libya aged between 9 and 15 years and the same number of parents participated in the study, who completed measures of mental health problems (children: CRIES-8 and SDQ; parents: IES-22 and GHQ-12). Furthermore, the Gaza Traumatic Event Checklist, Coping Strategies and Perceived Social Support from Family and Peers questionnaires were completed by both parents and children. The research hypotheses were tested via multiple regression models. All questionnaires were subsequently subjected to exploratory factor analysis (EFA), following which the multiple regression testing was repeated according to the revised subscales.

Results: Internally displaced parents and their children reported high rates of post-traumatic stress and mental health problems, which were significantly associated with exposure to trauma. This association was moderated by parents using support-seeking and children using problem-solving strategies. Although several revised subscales emerged from the EFA, these did not alter the key findings of the regression models.

Conclusions: War conflict and resulting displacements have adverse effects on parents' and children's mental health. Libyan families appeared to rely on their own coping strategies rather than on support systems, which indicates that they were not reintegrated in their host communities. The findings have implications for policy, service provision and practice. Preventive and responsive interventions should be multi-modal and implemented throughout the course of families' displacement.

ACKNOWLEDGEMENTS

I would first like to thank my mentor, **Prof Panos Vostanis**, for offering both patience and guidance throughout this process. He has been extremely patient and has been a great motivation to me. I know that none of this would have been possible were it not for our weekly meetings and emails. I would like to thank **Prof John Maltby** for helping me understand exploratory factor analyses and explore my findings further. I would also like to thank **Dr Farag Shuweihdi** from the Department of Statistics School in Leeds University for being so helpful when I had any questions come up. I would also like to thank the Libyan children and their parents who participated in this study, because without their time and dedication, none of this would have been possible. Finally, I would like to thank my father, my mother, my wife, my children, sisters and my brothers for patiently listening when I grew frustrated with writing and for helping me to continue. Without all of you, this thesis would not have been possible.

DECLARATION

I declare that ‘’ The effect of civil war on Libyan displaced children’s mental health: role of coping strategies and social support ‘’ is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

General Introduction

Introduction

According to the United Nations High Commissioner for Refugees (2018), war has displaced approximately 68.5 million people worldwide, forcing them to seek sanctuary elsewhere, fifty per cent of whom are children. Additionally, 25.4 million of them are refugees and 40 million are classed as internally displaced persons, having not traversed any transnational borders (Internal Displacement Monitoring Centre, 2018), while 3.1 million were classed as asylum seekers. Interestingly, UNICEF (2018) found that in 2017 alone about 209,756 displaced children turned to the more affluent nations in an attempt to find refuge. However, the majority reside in temporary settlements in close proximity to their homeland, awaiting an end to the conflict (United Nations Development Programme, 2009).

Both the UNHCR (2008) and UNDP (2009) reported that most research conducted in countries of low–middle income commonly used the broad term 'refugee' to describe displaced children, and this has remained problematic in the more recent research literature (for example, Khawaja et al., 2008; Durà-Vilà et al., 2013; Trentacosta et al., 2016). The reasons are related to both the indiscriminate use of the term 'refugee', and in any actual research focussing more on relatively more settled populations (post-migration) rather than those in transition (pre- or during displacement or migration), the latter of whom are likely to have greater levels of basic and other needs.

War conflict can have a lasting impact on children in terms of lost opportunities and vulnerabilities, and can hinder them from achieving their full potential in life (Santa Barbara, 2006). Major risk factors include exposure to hostilities, living in a volatile environment, lack of safety and basic needs, loss of support and uncertainty over the future. These effects can be particularly pronounced during early childhood by affecting children's social, cognitive and emotional development (Masten, 2001). However, recent years have

also seen concerted efforts and emerging research in also identifying factors that protect refugees and displaced children in the face of such traumatic life experiences, and which can inform preventive and responsive intervention.

Since mid-2014 in Libya, more than 400,000 children have had to urgently leave their homes. More than 100,000 of them squat in schools and warehouses, or take refuge in camps across the country (UNICEF, 2011). Three million people throughout Libya have felt the effects of the recent insurgency. In 2018, the UN refugee agency found that around 1.3 million persons in Libya required humanitarian aid. Furthermore, though it has 217,002 displaced people and 278,559 persons who have returned to their cities, Libya has also 43,113 host's refugees and asylum seekers (UNHCR, 2018).

Additionally, in recent years a serious military conflict between two militias has erupted in the eastern part of Libya, largely in the Benghazi region, the second main city, located 1,000 km to the east of the capital, Tripoli. As a consequence of this conflict, the level of violence has increased and around 90,000 Benghazian citizens have fled to neighbouring cities such as El-Bayda, El-Marj and Tubrek. This, in turn, has negatively affected Libyan children in those cities and has led to the closure of 60 schools at different stages. Furthermore, in only the two major cities, Tripoli and Benghazi, approximately 270,000 children are estimated to have witnessed acts of extreme violence throughout the course of the insurgency (UNICEF, 2015).

The prolonged conflict raises concerns on how children's mental health is being affected and how services can address their complex needs. For example, Charlson et al. (2012) predicted that the 2011-2012 conflict would account for a large increase in severe mental health problems among the Libyan population, with up to 20% suffering from severe depression. However, even this gloomy prediction was based on a short conflict period, and Libya has since suffered further violence and faces an unknown future.

Furthermore, there are few facilities left in Libya for treating mental health problems, and the country has a culture of not seeking mental health support in general (Arie, 2011). Doctors warn of a 'lost generation' with severe mental health problems, and predict that rates of mental illness are likely to increase as teenagers become adults (Rhouma, Husain, Gire, and Chaudhry, 2016).

Therefore, the rationale to this study was to address both the emerging research priority of identifying protective factors for children exposed to war conflict and internal displacement, and to contribute to the improvement of the mental well-being of Libyan children. It was specifically designed to investigate the adverse effect of the Libyan war on children's mental health and the potential role of social support from primary groups such as family and peers, and individual skills such as coping strategies. The findings of such research will hopefully help to understand the mechanisms that can help moderate the detrimental effect of exposure to war conflict on children. This would enable those who require the most assistance to gain the attention of the appropriate authorities. It also means that health, welfare and immigration authorities and stakeholders would be able to access an evidence-base to improve policy, service development and interventions.

This thesis is structured in seven chapters. Chapter 1 critically presents the background context on war conflicts, displaced people and the concepts used in this study, and which are related to the Libyan situation. In Chapter 2, evidence for the association between exposure to war trauma and mental health problems among displaced children is considered. The methodological issues and procedure are justified and described in Chapter 3, i.e., research aims and hypotheses, underpinning paradigm, sampling framework, instruments, research and ethics procedure, and statistical analysis. Chapter 4 presents the findings on the predictors of parental mental health problems in relation to their vulnerability factors. Chapter 5 subsequently presents the finding on the effect of war on

children and the role of protective factors in moderating this association. Chapters 6 and 7 focus on the implementation of exploratory factor analysis (EFA) in the ten measures used in this study, as completed equally by parents and children. Chapter 8 discusses the key findings in relation to prior research, and their methodological and practical implications.

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Chapter One

Literature review 1:

Impact of war trauma on children's mental health

Introduction

On 17th February 2011, civil war erupted in Libya that remains active to date, and which has caused significant population displacement and its resulting difficulties. This chapter will, therefore, place the Libyan situation in the context of the global patterns of war conflict and displacement, and in that of existing research evidence into how these impact on children's well-being, particularly in terms of their mental health. In this review, I will focus on internally displaced children whenever possible, but will also include research that considers refugee children in low- and middle-income countries (LMIC), especially in the Middle East, because of the lack of any clear distinction in the use of these terms in the literature (Reed et al., 2012; Eruyar et al., 2018; Hodes and Vostanis, 2018).

1.2 Recent history of global population displacement

The period between 1940 and 1960, which covered the Second World War and the post-war era, witnessed the largest movement and displacement of individuals in the previous century, with a minimum of 81.6 million people displaced due to regime-based brutality and conflict. In Nazi Germany, forced labour led to the displacement of huge numbers of civilians. The Soviet Union's Josef Stalin became increasingly despotic, forcing millions of people to flee the USSR whilst also ejecting indigenous Germans who had settled there. The subsequent division of Europe and redrawing of the then existent national borders led to both population exchanges and forced migration. In order to deliver more effective assistance to individuals displaced by violence, the United Nations High Commission on Refugees was thus created in 1950.

Similar trends occurred in Asia and Africa, largely as a result of the withdrawal of western colonial powers. For example, the process of Indian Independence and the

country's 1947 partition resulted in the displacement of around 14 million individuals. This was followed in the 1950s by a prolonged period of wider decolonization for several decades across Asia and Africa, with further population upheaval. Angola, Nigeria, the Congo and Algeria all witnessed internecine conflict and anti-colonial struggles that led to the displacement of millions of people outside their borders, and which was exacerbated in subsequent years through ethnic-based violence as waged by military dictatorships (DePillis, Saluja, and Lu, 2015). A minimum of 46.5 million individuals were thus displaced for the above reasons between 1960 and 2000.

In the Horn of Africa and Afghanistan, there were further mass displacements of individuals as a consequence of the proxy conflicts waged by the Cold War powers in the 1970s and 1980s. Georgia and Tajikistan, as well as Azerbaijan and Armenia, all witnessed significant population movements following the disintegration of the Soviet Union, and the resulting nationalist and ethnic-based demands for independence in Eastern Europe. By contrast, vast numbers of Russians returned to their homeland from these countries. As a consequence of various wars and violence, for example the ongoing fall-out from the 2003 Iraq War, international displacement also began to rise from its unprecedented nadir in 2005, with a minimum of 22.9 million people having been displaced since 2000. Indicative of the sheer number of individuals having been disrupted as a result of various conflicts, the UNHCR estimated that over 60 million people were internally displaced in 2014 (DePillis et al., 2015).

1.3 Libyan civil war background

The capital city of Libya, Tripoli, became affected by the violence that erupted on 20th February 2011. This large-scale violence began as a revolt on 17th February in response

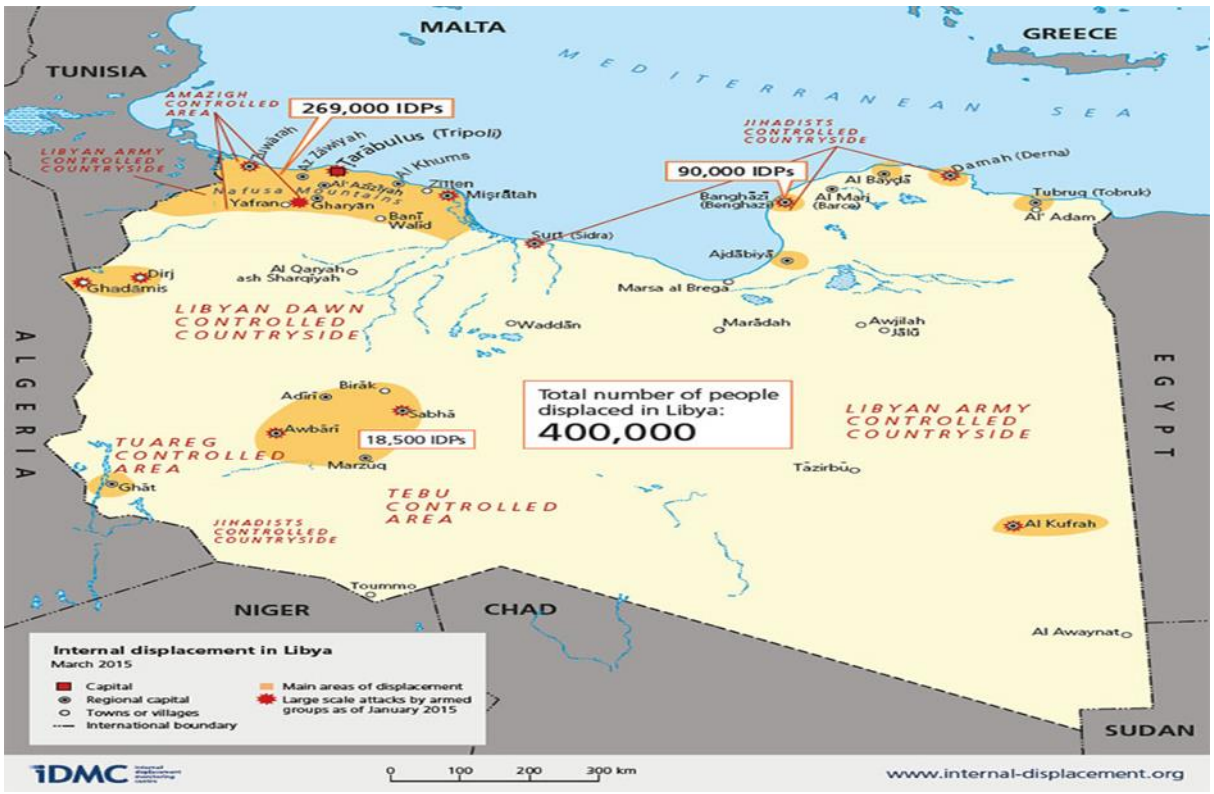
to the Arab Spring, i.e., violence which had spread across North Africa also becoming prominent in neighbouring Tunisia and Egypt. The eastern section of Libya, comprising, for example, the port city of Benghazi, was taken over by rebels. These 'rebels' included various opposition factions, as well as members of Gaddafi's military who had turned out to fight against him. The rebels seized control of the majority of Libya in early March 2011, although Tripoli and the surrounding area remained firmly in Gaddafi's control. As Elkatawneh (2013) detailed, Gaddafi's forces were able to combat insurgents in the region surrounding Benghazi; they also responded aggressively to rebels along the coast of Benghazi, which had become the predominant base for the opposition. A United Nations Security Council resolution created a 'no-fly zone' to come to the assistance of ordinary Libyans, stipulating that "all means necessary" could be used in this regard (Martinsen, 2016). This resolution was passed without any votes opposing it, although five countries abstained. This was the so-called Resolution 1973, coming into force on 17th March 2011.

The National Transitional Council usurped Libya's UN seat (Elkatawneh, 2013). This took place on 16th September 2011, with the General Assembly of the U.N. granting a request from the National Transitional Council to hold the seat of, and represent, Libya within this body. The International Federation for Human Rights ascertained that Gaddafi's Air Force had previously attacked civilians, making use of a so-called 'scorched earth' strategy. This meant that the United Nations Security Council made use of the second power approach (Martinsen, 2016). This option was reluctantly adopted with due consideration for the fact that the utilitarian approach had not prevented demonstrators from being murdered by Gaddafi.

UNICEF (2011) supplied figures which indicated that approximately one-third of the Libyan population during this period of conflict consisted of children under 18 years old. Since mid-2014, more than 400,000 children have had to leave their homes. More than

100,000 of them would ultimately be forced to squat in schools and warehouses, or take refuge in various camps across the country (UNICEF, 2011). Indeed, at that time nearly one-third of Libyan civilians required humanitarian aid. In addition to the earlier conflict, three million people throughout Libya have suffered from the effects of the recent insurgency. A subsequent report by UNICEF (2015) indicated that in the two major cities of Tripoli and Benghazi alone, 270,000 children witnessed acts of extreme violence throughout the course insurgency and were thus at risk of developing mental health problems. Figure 1.1 below shows the number of internally displaced civilians in various parts of Libya during 2015.

Figure 1. 1: Internal displacement trends in Libya



Source: Internal Displacement Monitoring Centre - IDMC (2015)

1.4 Statistics of internally displaced people (IDPs) in Libya

In July 2015, the total number of IDPs in Libya stood at a minimum of 434,000 according to the Internal Displacement Monitoring Centre (IDMC). Community bodies, the International Organization for Migration (IOM), the International Federation of the Red Cross (IFRC), as well as UN organizations such as the UN Support Mission in Libya (UNSMIL), the UNHCR and United Nations Office for the Co-ordination of Humanitarian Affairs (OCHA), all provided data to the IDMC. The Centre identified three major trends in the movement of IDPs. Firstly, due to the conflict in Awbari in the south of the country that had been ongoing since January 2014, by January 2015 around 18,500 individuals had fled and around 4,800 had subsequently been unable to return to their homes and were thus classed as IDPs. Secondly, due to fighting in the east of Libya from the middle of May

2014, IDPs from Tobruk, Derna and Benghazi amounted to 90,000 individuals, in addition to the 105,000 IDPs who had actually fled to Benghazi itself, according to the UNHCR. Thirdly, from the middle of July 2014, Tripoli and its surrounding areas had received the majority of the 269,000 individuals who had fled the conflict in the western regions of the country (IDMC, 2015). In total, just under half a million civilians (434,000) were classified as IDPs during this year (IDMC, 2015).

1.5.1 Definitions of key concepts

Refugee, asylum-seeking, internally displaced status, and trauma

A number of concepts are introduced throughout this review, which may have been defined in different ways by policy makers and researchers, for instance, or have otherwise just evolved over time. For this reason, the definitions that follow are intended to allow for clarity and consistency throughout the thesis.

Refugee

The UNHRC (2012) considers a refugee to be a person who has departed their home nation due to "persecution, war or violence". It stipulates that they are "too afraid" to return home. The Commission also states that they are subject to and/or at risk of persecution due to "race, religion, nationality, political opinion or membership in a particular social group". According to this definition, the principal reasons that refugees leave their countries are "war and ethnic, tribal and religious violence." This is not substantially different from an earlier definition adopted by the United Nations as that of a refugee being someone who has legitimately "well

founded fears" of persecution for the reasons mentioned above (UNHRC, 2012). The United Nations also consider the fact of a person no longer living in their home country, and not being able to return to it, as central to their definition. In contract, economic migrants voluntarily leave their countries of origin in the attempt to improve their life opportunities. Despite some overlap, and thus legal uncertainties in differentiating from refugees, this large group will not constitute the focus of the literature review or indeed the thesis.

Seeking asylum

Seeking asylum is usually the first step taken by people leaving their home country for the previously stated reasons. The UNHRC (2012) stipulates that classifying an individual as an asylum-seeker necessitates that they have a "well-founded fear" of being persecuted in their nation of origin. Obtaining asylum in another country involves international law declaring individuals to be refugees, and accordingly offering them material support and legal aid.

Refugees and asylum-seekers move along transnational boundaries; in contrast, people who are still in their country of birth are defined as 'displaced persons' (Hein, 1993). Social scientists such as Hein consider refugees to be people who renounce any involvement with their home countries and migrate to another in search of protection. Consequently, the term 'displacement' is used in this manner in this literature review. Internally displaced persons lie outside the remit of international law, and thus receive a number of concomitant aid packages. Put simply, internally displaced persons – also known as IDPs – have left their homes, yet, unlike refugees, have not also left their home nation. A UNHRC report (2012) highlighted the association between widespread civil war and the

dramatic rise of internally displaced persons. This corresponds to a shift in the nature of conflicts fought globally.

Trauma

The term ‘trauma’ is often overused in academic, clinical or public communication, designating any adverse event or experience which is challenging to overcome, as well as being distressing. Yet, to understand fully how children relate to traumatic circumstances, the full meaning of this concept must be conveyed. Copeland et al. (2007) highlighted how the scope of trauma has widened over the years in both research and clinical practice to also include those individuals who have been affected by merely witnessing (or being ‘onlookers’ to) an event, thus producing a highly negative and discernible reaction from those who were unfortunate enough to experience it directly. This was despite the fact that the earlier concept of ‘trauma’ only related to those who were the actual victims of an act of violence.

In relation to children, McNally (2003) defined trauma as any event that they do not have the emotional faculties to deal effectively with. This could include natural disasters, sexual and domestic violence, encountering violence, or armed conflict. McNally’s definition lies outside any typical circumstance that children might normally encounter in their daily lives, thus going beyond the threshold of what they can adaptively process. To address the need to distinguish between different types of traumatic events, and to understand the underpinning mechanisms involved, terms such as ‘multiple’ versus ‘single’, ‘complex’ and ‘recurrent’ trauma have been suggested in recent years. These definitions are important in the sense of indicating chronic and often inter-linked events such as abuse and neglect, domestic and community violence, or experiences during their migration. In addition to the impact of war trauma on children’s mental health, there are other factors related to war that

could influence or contribute to an increase in mental health problems amongst children. For example, children who suffer injuries, loss of family and social networks, sexual exploitation, or kidnapping are at high risk of suffering from post-traumatic stress disorders (PTSD) and other mental health conditions (UNICEF, 2019). Thus, war conflicts can have multiple and cumulative effects on children's mental health.

For this reason, the terms 'trauma', 'trauma exposure' and 'traumatic events' will be used throughout the thesis, as they closely mirror the profile of war-affected, refugee and displaced children. Evidence of their impact on children's well-being will be briefly summarized in the following section, which will itself be followed by a detailed review of how these can adversely affect their mental health.

Child

Policy, services and the majority of research studies define minors as including infants with ages ranging from birth, to primary school age children (usually 6-11 years) to adolescents under the age of 16 years. From a legal standpoint, this upper limit may vary depending on country; for example, an unaccompanied minor can be considered as anyone of an age of up to 18 years old (UNICEF, 2010). Even these broad age groups are relatively heterogenous, because of children's continuous development along different domains. For our purposes, the term 'child' will mainly be used throughout the thesis to represent the entire spectrum of ages noted above, although occasionally the terms 'infant', 'adolescent' or young person' may also be used in relation to specific developmental issues (Liefaard and Sloth-Nielsen, 2016).

1.5.2 Refugee policies

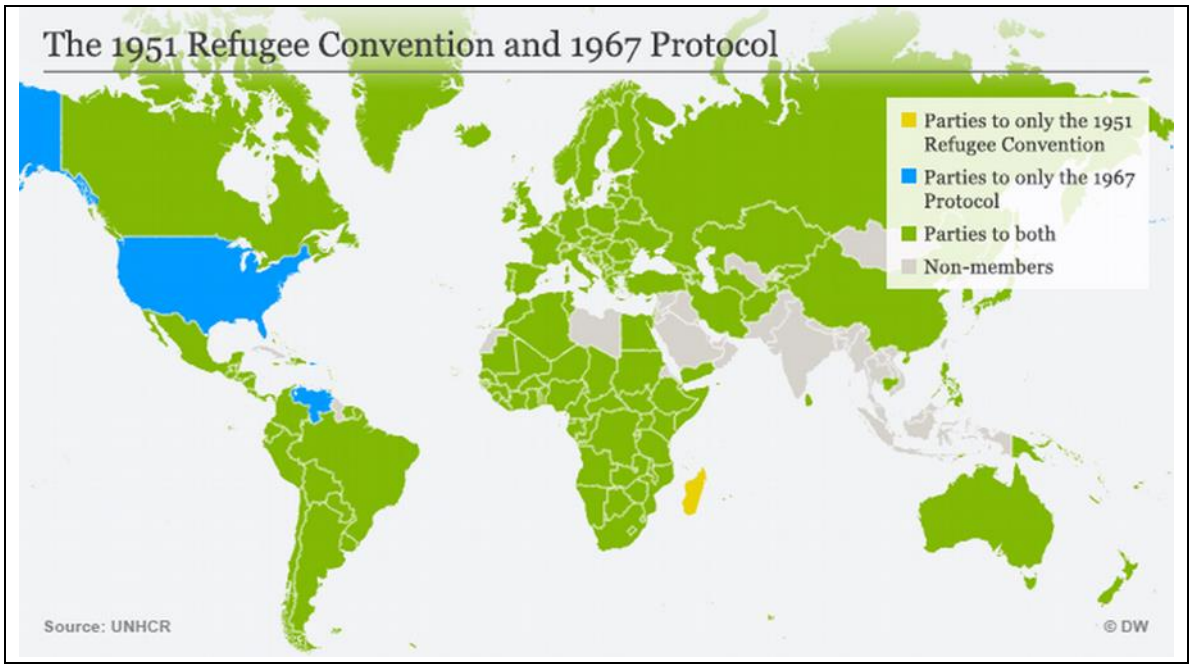
The earlier Conventions of 28th October 1933 and 10th February 1938, which had been established at the regional level to uphold minority rights, were superseded in 1951 by the Geneva Convention relating to the Status of Refugees. This Convention sought to implement an internationally recognized refugee law and was ratified by 26 European, Middle Eastern and North American countries, as well as by Australia. Since then, the implementation of basic rights at the global level has been based on the principles of the 1951 Convention, which include:

1. *Non-discrimination*: Discrimination against refugees on the basis of religion, political affiliation, gender, age, disability or sexuality is forbidden.
2. *Non-penalization*: Individuals cannot be punished for unlawful border crossing if they risk persecution in their country of origin.
3. *Non-refoulement*: Refugees cannot be forced to return to their country of origin without them stating their express wish to do so, owing to continued armed conflict and persecution.

These fundamental rights that refugees were accorded by the 1951 Convention were then further outlined in various different domains, including the judicial and educational system, employment, welfare, and document provision. In so doing, the Convention specified the main standards that host countries were required to enforce in addition to those required by sovereign law. However, despite its massive contribution to securing international rights for refugees, the 1951 Convention failed to grant support to refugees from non-European countries as it was only applicable to people recognised as refugees and fleeing events that happened prior to 1st January 1951. Consequently, the geographical and temporal restrictions of the 1951 Convention were tackled through the introduction of the 1967 Protocol (UN General Assembly, 1967). Both the Convention and the Protocol

are currently enforced at the global level, currently having 146 state signatories. These countries, however, do not include Libya, the countries of the Arab Gulf and certain countries in Asia (see Figure 1.2 below).

Figure 1. 2: Convention Relating to the Status of Refugees



Source: Natalie Muller (2016)

1.6 Consequences of armed conflict on children

In the past twenty years, armed conflict has resulted in the deaths of around five million children (UNICEF, 2009 and 2015). Vulnerability and a lack of protection generally result in children being the foremost victims of circumstances engendered by armed conflict. Such traumatic events can impact children's lives through high fatality rates; their physical health through injuries, acute and chronic illness, secondary disabilities, torture, and rape – the latter further resulting in sexually transmitted diseases and teenage pregnancies – and psychological trauma; forced displacement, coercion into fighting in armed conflicts, loss of parents and other support, lack of education and peer

networks, as well as social and cultural transformations (UNICEF, 2018). For example, injuries caused by the different weapons used in armed conflicts or post-conflict mines often result in children's deaths or permanent disabilities. The sexual abuse of children or their recruitment as soldiers during armed conflicts are recognised as war crimes by the Convention on the Rights of Children (Liefaard and Sloth-Nielsen, 2017). Moreover, armed conflict and violence displace countless numbers of people, with 5% of children being orphaned during the resettlement period associated with a typical, average conflict. Children who have been separated from their families are also more likely to lose their lives or be exploited. Throughout their migration, linguistic and cultural losses, as well as discrimination, are usually experienced by children (Çelik and Özpınar, 2017; UNICEF, 2018). All these events act as interlinked risk factors that may inflict psychological scars on large numbers of children. These considerations highlight the importance of comprehending how children's mental health is impacted by armed conflict in order to inform policy, services and practice as to how to help such children recover from and respond to traumatic events.

1.7 Mental health of children exposed to traumatic events related to war conflict and displacement

Exposure to a range of traumatic events, including war conflict, has significant adverse effects on children's mental health, as widely established in the literature of the last 25 years. Furthermore, in order to better understand the impact of exposure to war on Libyan displaced children, the current study has concentrated on Middle Eastern and developing (LMIC) countries, although this evidence is relatively limited and somewhat different to similar findings for Western countries (Reed et al., 2012; Eruyar et al., 2018; Hodes and Vostanis, 2018).

Furthermore, two primary classification systems, the Diagnostic and Statistical Manual of Mental Disorders (DSM–5) (APA, 2013) and the International Classification of Diseases (ICD-10) (World Health Organization [WHO], 1993) will be used to examine the aforementioned mental health problems, mainly including post-traumatic stress disorders (PTSD), depression, anxiety and conduct disorders. Established psychosocial correlates, as well as prevalence rates for overall mental health morbidity will be presented in this section, with a more detailed consideration of specific disorders given in subsequent sections.

Twenty previous studies were included in a systematic review undertaken by Rosshandler et al. (2016) where inclusion criteria encompassed adolescents exposed to conflict from 1990 to the present day over the course of the Palestinian and Israeli wars. The researchers adopted an ecological framework in which they considered PTSD in terms of different levels of psychosocial risk factors (young person, family, community and society). The researchers found an association between childhood psychopathology and exposure to violence, which was moderated by a paucity of economic resources, lower levels of personal coping skills, and impoverished familial and peer relationships. Some representative studies from recent conflicts and major findings will be considered below in more detail.

In a study during the Gulf War, following the bombardment of the Al Ameriyah shelter in 1991, children were interviewed six months, one and two years after this event (Dyregrov, Gjestad, and Raundalen, 2002). The study found that these children had long-term mental health symptoms that were inflicting substantial and ongoing distress. Children were found to be likely to experience extended bouts of depression, and concerns that they might lose their family or that their loved ones did not sympathize with their suffering. Children reported high rates of both avoidance symptoms and intrusive thoughts.

During the same period and conflict, Kostelny and Garbarino (1994) examined the psychological impact of conflict on Palestinian children residing in the West Bank. They studied a sample of 150 children aged 6-9 and 12-15 years, equally divided between areas of high and low political violence. Regardless of their geographical location, the study found higher rates of child mental health problems among children who had suffered an intifada-related injury or the incarceration of a family member. Symptoms were time-dependent, i.e., more apparent in children who had experienced violent trauma within the past six months than those who had experienced similar trauma at an earlier time.

Similar patterns were detected amongst children fleeing violence in the Middle East to Western countries, i.e., this impact was sustained well after these children's migration, although the latter possibly accentuated the original traumatic effect. For example, among 211 Iraqi refugee children enrolled in in a metropolitan US area, Trentacosta et al. (2016) found a dose-effect relationship between exposure to trauma and mental health problems. Furthermore, the consequences of exposing young people to conflict was considered through a systematic review by Slone and Mann (2016), who found a range of psychosomatic symptoms that were attributed to distress.

The more recent effects of torture and systematic violence upon the civilian population of Libya were studied by Fathi and Arfaoui (2014) in a large mixed methods study including 2,692 adult families. Although this review only considers children, the researcher reported this major study because of its direct relevance. Of those participating, 29% suffered from anxiety, with a similar proportion (30%) experiencing depression while, unlike previous studies, only 6% reported clinical symptoms of post-traumatic stress disorder (PTSD). Since many of those who took

part in the study were likely to be experiencing the acute or post-acute phase of trauma, it could be hypothesized that the incidence of post-traumatic symptoms is likely to escalate in the future, even once the unrest in Libya resolves itself. Furthermore, women and girls were particularly affected following their ordeals, with many reporting pain, depression, anxiety, restricted mobility, reduced self-care (for example washing, dressing and feeding themselves), and resuming normal everyday activities. A variety of sources of stress were attributed, with 63.6% citing political instability, 61.2% identifying the disintegration of the state, 56.6% naming immediate life insecurity, and 46.4% concerned about insecurity in the future.

These findings indicated that any prospective Libyan administration would have to confront an immense task in terms of improving the mental health of the nation and, in particular, addressing the damage inflicted by the conflict. Moreover, the longer the current crisis is sustained, the greater the occurrence of human rights abuses and torture is likely to be. Consequently, both the prevalence and incidence of psychological trauma will probably increase in a commensurate manner, thereby increasing the burden on the structure of society and on future Libyan governments' ability to meet national priorities (Fathi and Arfaoui, 2014).

Overall, war conflicts have been shown to have significant adverse effects on children through trauma and its resulting adversities, with a range of mental health problems emerging post-conflict that may continue into the long-term, ultimately leading to psychosocial impairment. As the majority of studies established PTSD as being the main type of mental health conditions, some consideration will be given to its origins, evidence-base and implications. In addition, there is a significant amount of evidence confirming that displaced children suffer from a range of comorbid mental health problems. Attanayake et al. (2009) and Jensen et al. (2015) noted that the most commonly established

form of psychopathology was PTSD, followed by emotional disorders such as depression and anxiety, and followed to a lesser extent by conduct disorders.

1.7.1 Post-traumatic stress disorder (PTSD)

Post-traumatic Stress Disorder (PTSD) was first defined in the USA by Kardiner (1941) as a combination of mental health symptoms presenting in traumatized individuals who go on reliving the traumatic situation, and who develop ongoing sensitivity to reminders of this experience. The majority of isolated traumatic events find their resolution within weeks or, in the worst case, after a few months (Dyregrov and Yule, 2006). This process of recovery is aided by healing over time, informal (family or school) support, or professional interventions. However, some children do not recover from certain traumas, usually those of a more complex nature, for several months or even longer.

Thus, as stated by the American Psychological Association (2013), PTSD is a form of psychiatric disorder that may occur in individuals with experience of, or having been witness to, a traumatic event that might include a violent personal assault such as rape, an act of terrorism, natural disaster, war/combat, or a serious accident. It is a complex disorder, with symptoms that can overlap with those of several other disorders such as generalized anxiety disorder or depression. Many researchers have noted that PTSD comorbidity could thus be a reflection of symptom overlap (Mitchell et al., 2017).

Table 1. 1 Diagnostic criteria for PTSD in DSM-5 and ICD-

Criteria	DSM-V	ICD-10
A	Direct or indirect* exposure to actual or menace of death, serious injury or sexual violence.	Short or long-term exposure to threatening and devastating events, which is likely to cause extensive distress in almost anybody.
B	Constant re-experience of traumatic events by flashbacks, nightmares, unwelcome thoughts, emotional distress or physical reactivity following traumatic reminders.	Recalling and living over the stressor constantly by flashbacks, vivid memories, iterative dreams, or distress following trauma-reminder situations.
C	Avoidance of trauma reminders or trauma-specific thoughts and emotions following exposure to trauma.	Avoidance of trauma reminders or trauma-related situations following exposure to trauma.
D	Having two of the following items: a) Lack of remembering core elements of the traumatic events. b) Extremely unfavourable conjectures about self or the world. c) Extreme blame of self and others for trauma occurrence. d) Negative affect or difficulty in experiencing positive affect. e) Decreased attraction to activities. f) Feelings of isolation.	Having either (1) or (2): 1. Lack of remembering some or all core elements of the traumatic events. 2. Persistent arousal symptoms represented by any two of: a) Sleep disturbance. b) Jitters or bursts of anger. c) Concentration difficulties. d) Hyper-vigilance. e) Excessive startle reaction.
E	Having two of following arousal symptoms: a) Irritability or aggression. b) Risky or destructive behaviour. c) Hyper-vigilance. d) Excessive startle response. e) Concentration difficulties. f) Sleeping difficulties.	Symptoms emerge following the traumatic event or within six months.
F	Symptoms proceed at least a month after the traumatic event.	
G	Symptoms cause impairment in functionality.	
H	Symptoms are free from medication, substance use and other illnesses.	

In order to diagnose PTSD, The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) includes the following four types of symptoms, and their effects, for both children and adults (APA, 2013):

• Intrusion: flashbacks, intrusive images and sensory impressions, dreams/nightmares.

• Avoidance: avoiding people, situations or circumstances resembling or associated with the event.

• Negative alterations in mood and cognitions: feeling alienated from others, constricted affect, diminished interest in significant activities, distorted negative beliefs about oneself or the world, and inability to remember key features of the traumatic event.

• Alterations in arousal or reactivity: hypervigilance to potential threat, exaggerated startle response, irritability, difficulty concentrating, and sleep problems.

While DSM-5 notes that PTSD is a form of anxiety response developed by 'some' people who witness, or are exposed to a life-threatening event (APA, 2013), ICD-10 (WHO, 1993) states that PTSD is a deferred reaction that 'most' people have following their exposure to life-threatening or stressful life events. Regardless of minor differences, over the years these two definitions have converged. Table 1.1 presents the specific diagnostic criteria for PTSD. Despite DSM-V and ICD-10 having diverse clustering systems, they mostly include similar types of symptoms, including alterations in cognitions, hyperarousal, avoidance, and intrusion. DSM-V, in Criterion D, provides further details on symptoms concerning negative alterations in cognitions and mood; and, in Criterion E, it includes risky and destructive behaviour to further elaborate on hyperarousal symptoms. ICD-10, however, has combined these clusters in its Criterion D.

While DSM-V adds avoidance of trauma-related thoughts and feelings to expand on the definitions concerning avoidance situations, ICD-10 provides definitions of more general avoidance situations, including trauma-related events. Furthermore, DSM-V states that the symptoms' duration is of one month minimum, whereas ICD-10 notes that the time necessary between the occurrence of traumatic events and the onset of the symptoms is of six months.

A number of researchers contend that post-traumatic stress disorder may emerge from such lengthy traumatic episodes (Dyregrov and Yule, 2006; Hizli, Taskintuna, Isikli, Kilic, and Zileli, 2009). According to the American Psychiatric Association (2000), children manifest high levels of distress during the first stages of the trauma; if this exposure (traumatization) then continues, then a child may manifest symptoms of post-traumatic stress disorder. PTSD thus involves responses which stretch out far beyond the distressing experience itself, hence manifesting themselves through thoughts, feelings and physical complaints.

Throughout the world, under-age individuals are subjected to various types of trauma. Research has revealed that 45.6% of refugee children from Syria who had resettled in Lebanon and Jordan suffered from post-traumatic stress disorder (PTSD), with the associated heightened risk of comorbidity with other emotional problems; older refugee children and teenagers were particularly vulnerable. There are extensive reports of how damaging loss and trauma are to refugees' mental health and adaptive functioning. Maladjustment has been shown by epidemiological surveys to be widespread among refugee children, and this has been correlated with a high prevalence of PTSD (Reavell and Fazil, 2017). Furthermore, in their systematic review, Bronstein and Montgomery (2011) found that 19-54% and 3-30% of refugee children suffered from PTSD and depression,

respectively, while the proportion of the occurrence of emotional and behavioural problems varied considerably.

Different studies have obtained different results regarding the extent of the prevalence of PTSD, according to how severe it is, how long it lasts, and what caused it (Spinazzola et al., 2017). Kilpatrick et al. (2003) applied DSM-IV criteria to evaluate a national household probability sample comprising 4,023 teenagers, revealing that 3.7% of the male and 6.7% of the female individuals suffered from PTSD. Meanwhile, Romero et al. (2009) studied 446 children, ages 7 to 17 years. Reported that 21% of children who had been subjected to physical or sexual abuse had PTSD. Furthermore, Charlson et al. (2012) found that, out of an overall population of 1,236,600, severe PTSD stemming from acute political terror and trauma affected 12.4% of individuals sampled in Libya (n=123,200), while severe depression had been developed by 19.8% of individuals (n = 228,100). Moreover, in half of these cases, PTSD occurred alongside severe depression (Charlson et al., 2012).

Unlike other mental health conditions, overall PTSD has been found to transcend cultural barriers. For example, young people in parts of Africa were the subject of research into the proximity to civil war and violence in terms of effects on the robustness of mental health constructs. Twenty studies from four Africa countries (South Africa, Sierra Leone, Gambia and Rwanda) were reviewed by Foster and Brooks-Gunn (2015). The outcomes revealed an association and consistency between young people reporting symptoms of PTSD and depression, and behaving aggressively.

There is consistency in both the individual high prevalence and comorbidity between PTSD and depression, although the mechanisms appear to be different. While exposure to trauma directly predicts PTSD symptoms, depression and anxiety appear to be influenced more by current socioeconomic adversity or recent life events such as living in refugee camps (Thabet, Abed, and Vostanis, 2004). Recent studies have also noted that

the rise in atrocities taking place across the world, as well as the effects of war, are related to the increasing occurrence of PTSD among displaced children. However, there is a research gap in terms of the adequate understanding of the diverse and differential effects of previous experiences and present living situations, which may act as predisposing, precipitating and maintaining factors for the onset and persistence of PTSD symptoms.

It should be acknowledged that emerging evidence may have been influenced by the dominant economic and cultural circumstances in different countries. PTSD has been found to be more prevalent in LMICs compared to HICs, which probably mirrors the multitude of war-related and resulting disadvantages facing refugees and displaced children, thus the urgent need for interventions (Yatham et al., 2018). Indeed, the overall prevalence of mental problems in lower-income populations has been determined to be nearly double that in higher-income populations, as reported by research conducted in Brazil, India and Zimbabwe (Patel et al., 1999). Furthermore, LMICs experienced 88% of armed conflicts in 2007 (Harbom et al., 2008), exposing children to associated traumatic events such as witnessing or suffering violence, loss of a relative, and/or proximity to bombing or gunfire (Benjet, 2010). Similarly, as indicated by Mace et al. (2014), underaged individuals in LMICs are particularly vulnerable to PTSD, since this disorder is more prevalent in LMICs than in HICs, where in the latter it has been measured as being only 5%. In addition, mental health problems, including PTSD, are more likely to affect children (Murthy and Lakshminarayana, 2006) due to lack of protection, loss of primary caregivers, forced migration, exposure to deeply disturbing and distressing events, exploitation, and resettlement in unknown cultural contexts with difficult social and economic conditions (Bogic et al., 2015).

Nevertheless, studies investigating refugee populations frequently result in contradictory outcomes due to discrepancies in the methodological approaches adopted.

For instance, research addressing the psychiatric conditions manifested by refugees following armed conflicts has shown that clinical and methodological factors are the main reasons for the significant variation found in the prevalence of depression (2.3–80%), PTSD (4.4–86%), and unspecified anxiety disorder (20.3–88%) (Bogic et al., 2015). Furthermore, there is a lack of standardization in the measures used for the evaluation of PTSD symptoms among underage refugees. Self-reports are preferred by studies with older children and teenagers (Birleson, 1981; Beck et al., 1996), because they facilitate the measurement of PTSD symptoms in sizable samples of highly mobile individuals from different cultures, despite their lack of corroboration with adult informants and in-depth diagnosis through structured interviews. Moreover, different PTSD rating scales have been used in the literature. In addition, the incongruities in the prevalence of PTSD might be due to sampling differences in relation to their characteristics (experiences, context and migration phase) and size. Hence, it can be concluded that the measured prevalence of PTSD is influenced to some greater or lesser extent by the investigative methods applied, as well as cultural and economic factors.

1.7.2 Depression

Depression is a common mental health issue that is presented in the general population and primary health care, and is often referred to as major depressive disorder or clinical depression to distinguish from symptoms that are mild in severity. In younger life, its onset generally occurs during adolescence rather than childhood due to a range of aetiologically linked factors (biological, hormonal and cognitive) during this developmental stage. Young people suffering from depression tend to persistently feel hopeless, sad, and lose interest in activities that they previously enjoyed for a period of at least two weeks (Hughes et al., 2019). Besides these

cognitive and affective symptoms, depression may be expressed through psychosomatic complaints such as chronic unexplained pain.

As stated by DSM-5, depression can be diagnosed if the individual experiences five or more of the following symptoms over a two-week period, with at least one symptom being depressed mood or loss of interest or pleasure. These criteria apply to both children and adults (APA, 2013), as shown in Table 1.2. In contrast, ICD-10 includes degrees of depression from mild (presenting four symptoms) to moderate (presenting five to six symptoms) to severe (including seven or more symptoms).

Table 1. 2 Diagnostic criteria for depressive episodes as described by DSM-5 and ICD-10

DSM-V	ICD-10
Depressed mood and/or loss of interest or pleasure in life activities for at least two weeks; and at least five of the following symptoms that cause clinically significant impairment in social, work, or other important areas of functioning almost every day: 1. Depressed mood most of the day. 2. Diminished interest or pleasure in all or most activities. 3. Significant unintentional weight loss or gain. 4.|Insomnia or sleeping too much. 5. Agitation or psychomotor retardation noticed by others. 6. Fatigue or loss of energy. 7. Feelings of worthlessness or excessive guilt. 8. Diminished ability to think or concentrate, or indecisiveness. 9. Recurrent thoughts of death.	The individual usually suffers from depressed mood, loss of interest and enjoyment, and reduced energy leading to increased fatigability and diminished activity. Marked tiredness after only slight effort is common. Other common symptoms are: (a) Reduced concentration and attention. (b) Reduced self-esteem and self-confidence. (c) Ideas of guilt and unworthiness (even in a mild type of episode). (d) Bleak and pessimistic views of the future. (e) Ideas or acts of self-harm or suicide. (f) Disturbed sleep. (g) Diminished appetite.

The World Health Organization, as well as the National Institute of Mental Health, present surprising statistics that indicate depression is a critical global problem (World Health

Organization, 2012). According to the American Psychiatric Association (2013), depression is not only a widespread mental disorder but also the most common chronic medical condition after hypertension in the US. Depression is the second-most prevalent mental health disorder among refugee children, which frequently occurs alongside PTSD (Thabet et al., 2004); it has been shown to affect around 43% of children with experience of traumatic armed conflict events, as an average of available evidence (Attanayake et al., 2009).

In a recent study conducted with 61 children in a refugee camp in Gaza, the researchers explored the development of mental health problems amongst children who had been exposed to community violence. They found that more than 1 in 5 children (22.2%) reported symptoms of depression of clinical significance, with a significant association between exposure to trauma, PTSD and symptoms of anxiety (Thabet and Thabet, 2018). Furthermore, Özer et al. (2016) reported that the diagnostic symptoms of depression were exhibited by 44.3% of 311 underage Syrians in a refugee camp in Turkey. Similarly, Elbedour et al. (2007) indicated that 40% of underage refugees from Palestine had moderated severe depression, while Papageorgiou et al. (2000) had previously found that 47% of refugee children from Bosnia displayed signs of depression of varying severity.

One study reported that depression affected around 19.8% of Libyan families sampled who had experienced war trauma, which deserves mentioning despite its focus on adults, since studies on Libyan children, particularly in the post-war period, are scarce (Charlson et al., 2012). Meanwhile, a review of 72 studies explored post-disaster symptoms of depression among children. Of these studies, 27 (38%) indicated how prevalent post-disaster depression was among children, which varied between 2% and 69%. Moreover, Lindert et al. (2009) conducted a systematic review on 35 studies that revealed that 44% of 24,051 refugees and displaced children suffered from depression. Furthermore, Doocy et

al. (2013) and Llosa et al. (2014) also indicated that major depression was highly prevalent among underage individuals from Arab countries who had resettled in other Arab countries. Similarly, research reported that depression was diagnosed in 28.8% of 1,144 adult psychiatric patients in a refugee camp in the Lebanese city of Beirut (Bastin et al., 2013). By contrast, very few studies to date have investigated the impact of the war crisis in Libya on the mental health of displaced Libyan children.

1.7.3 Anxiety disorders

Anxiety is defined as a heightened negative emotional state coupled with fear about the potential occurrence of a negative event (Mathews et al., 2016). Evans et al. (2005) defined the term 'anxiety' as that of multiple physiological and mental phenomena that involve an individual being fearful of an actual situation or consciously worrying about a undesirable future event.

Table 2.3 presents Generalised Anxiety Disorder (GAD) symptoms as stipulated in DSM-V and ICD-10. It is important to note that, even when a child's symptoms fail to meet the diagnostic criteria for GAD, much like PTSD and depression, they may still experience upsetting symptoms such as disturbed sleep that adversely impact their everyday lives and functioning. The DSM-5 GAD criteria are the same for both children and adults (APA, 2013).

Table 1. 3 Diagnostic criteria for Generalized Anxiety Disorder in DSM-V and ICD-10

DSM-V	ICD-10
Note: Only one item is required in children. 1. Restlessness or feeling keyed up or on edge. 2. Being easily fatigued. 3. Difficulty concentrating or mind going blank. 4. Irritability. 5. Muscle tension. 6. Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep).	The sufferer must have primary symptoms of anxiety most days for at least several weeks at a time, and usually for several months. These symptoms should usually involve elements of: (a) Apprehension (worries about future misfortunes, feeling "on edge", difficulty in concentrating) (b) Motor tension (restlessness, fidgeting, tension, headaches, trembling, inability to relax); and (c) Autonomic overactivity (lightheadedness, sweating, tachycardia or tachypnoea, epigastric discomfort, dizziness, dry mouth). In children, a frequent need for reassurance and recurrent somatic complaints may be prominent. The transient appearance (for a few days at a time) of other symptoms, particularly depression, does not rule out generalized anxiety disorder as a main diagnosis, but the sufferer must not meet the full criteria for depressive episode, phobic anxiety, panic or obsessive-compulsive disorder.

Although the literature on anxiety amongst refugee children is scarce compared to that for adults, a number of studies have found that children are likely to internalise recurrent traumatic experiences and express them through anxiety-like symptoms. This has been established for war-related and community violence (Saigh 1989; Zeidner et al., 1993; Jabbar et al., 2014; Thabet and Thabet, 2018). In a study conducted in North and East Gaza, the researchers collected data from 200 households, and established clinically significant anxiety (33.9%) and other mental health problems (42.7%) amongst children, based on parents' reports (Thabet et al., 2008).

A similar study, but one that was based on both children's and parents' self-reports in areas of Gaza, conducted by Thabet and colleagues demonstrated a prevalence of anxiety amongst the children of 21.9%. These were also predicted by trauma exposure (Thabet et al., 2016).

Researchers such as Maršanić et al. (2014) and Thabet et al. (2016) thus studied children who had experienced war trauma, and established an association between exposure to war and the development of anxiety. In addition, it is common for generalized anxiety disorders in children to occur alongside another anxiety or mental disorders. According to Rapee et al. (2009), the criteria for at least two anxiety conditions are fulfilled by a minimum of one-third of underage individuals with anxiety disorders. Varying between 30% and 75%, the co-occurrence of anxiety conditions in children is usually accompanied by more severe symptoms of anxiety (Costello and Osborne, 2005).

Different prevalences in the range of 15-95%, with a mean of about 27%, have been reported by different studies of refugees (Elbedour et al., 2007; Goldin et al., 2008; Attanayake et al., 2009). Similar methodological reasons as for PTSD and depression can explain this variation, largely related to sampling and measurement procedures. For example, in an early study on 237 9-13 year-old children from the Gaza Strip, Thabet and Vostanis (1998) found that 21.5% of the children suffered from anxiety problems, which became more accentuated with age, the female gender, underpinning negative cognitions, and living in urban refugee camps. Thus, the characteristics of participating refugee children, their experiences and life circumstances, as well as the way in which anxiety symptoms were reported, have influenced the detected prevalences.

1.7.4 Conduct disorders

The definition of conduct disorders tends to be broad and relatively vague in terms of distinguishing between 'normal' and 'abnormal' behaviours; it is also important to consider the cultural and social context of such behaviours. Conduct disorders thus concern children displaying significant impairment in their daily interactions at home and/or at school which have an impact both on themselves and their environment, and - usually in adolescents - chronic antisocial behaviour patterns. The more serious antisocial behaviours can be recurrent and severe, and include stealing, lying, and verbal and physical aggression (Webster-Stratton and Herbert, 1994).

ICD-10 defines conduct disorders as "repetitive and persistent patterns of antisocial, aggressive, or defiant conduct" (World Health Organization, 1988), while DSM-V refers to a persistent behavioural pattern that violates other individuals' basic rights, as well as the major age-appropriate social norms or rules (American Psychiatric Association, 1994). Typically, children aged 5–18 years old diagnosed with conduct disorder manifest a continuous pattern of defiant and hostile behaviours over one year or more (APA, 2013). For a child to fulfil a DSM-V diagnosis, at least three of the 15 criteria below must apply. However, DSM-V also requires criteria relating to behaviours that result in 'clinically significant impairment in social, academic, or social functioning' (Table 1.3).

Table 1. 4 Diagnostic criteria for conduct disorder (CD) in DSM-V and ICD-10

DSM-5	ICD-10
Aggression to people and animals	
1. Bullies, threatens or intimidates. 2. Initiates physical fights. 3. Uses weapons that can cause serious physical harm. 4. Physical cruelty to people. 5. Physical cruelty to animals. 6. Stealing while confronting a victim (e.g., mugging, purse snatching). 7. Forcing someone into sexual activity.	1. Often lies or breaks promises to obtain goods or favours. 2. Initiates physical fights (other than with siblings). 3. Uses weapons that can cause serious physical harm. 4. Often stays out after dark, despite parental prohibition (beginning before 13 years of age). 5. Physical cruelty to other people. 6. Physical cruelty to animals.
Destruction of property	
8. Engaging in fire setting, with the intention of causing serious damage. 9. Deliberately destroying others' property.	7. Deliberately destroying others' property. 8. Setting fires deliberately.
Deceitfulness or theft	
10. Breaking into others' properties or cars. 11. Lying to obtain goods or favours or to avoid obligations. 12. Stealing without confronting a victim (e.g., shoplifting).	9. Stealing without confronting the victim, either within the home or outside (e.g., shoplifting, burglary, forgery).
Serious violations of rules	
13. Staying out at night, beginning before an age of 13 years, despite parental prohibitions. 14. Running away from home overnight at least twice, or once without returning for a lengthy period. 15. Truanting from school, beginning before the age of 13 years.	10. Truanting from school, beginning before the age of 13 years. 11. Running away from home at least twice or once for more than a single night (this does not include leaving to avoid physical or sexual abuse). 12. Committing a crime involving a victim (e.g., extortion, mugging). 13. Forcing someone into sexual activity. 14. Bullying (including intimidation, tormenting, or molestation). 15. Breaking into others' properties or cars.

Unlike the emotional presentations discussed earlier, conduct-related problems associated with traumatic armed conflict events have not previously been extensively investigated. The findings obtained by the existing research imply that conduct problems are related to the indirect implications of impaired parenting, community violence and disadvantage, rather than being directly caused by trauma. For instance, Eruyar et al. (2018) conducted a cross-sectional study in Turkey with 263 pairs of refugee children and parents from Syria to determine the impacts of trauma on children's mental states, and the extent to which these impacts was underpinned by factors associated with the parents. The results showed that, after controlling for trauma-related variables, children's conduct problems were largely shaped by parental psychopathology and parenting capacity.

Nevertheless, it is well established that conduct problems are more likely to occur in children refugees. Eight studies, including a total of 2,766 refugee children, were systematically reviewed, revealing that externalizing problems were reported, on average, in about 13% of children, rising to 20% in unaccompanied children who had been exposed to more risk factors (Bean et al., 2006). Conduct problems are more likely to be exhibited by teenaged refugees exposed to family and community stressors after resettlement. In their attempt to understand the reasons behind this pattern, Caudill and Ferguson (2016) conducted a qualitative study with young people from Somalia. They found that these young refugees had a greater probability of becoming involved with gangs and becoming less sensitive to violence if they experienced stressors such as loss of relatives, police brutality and discrimination, and long-term destitution. Such findings indicate that family- and community-related factors may interact with previous experiences, and this interaction between 'past' and 'here and now' factors results in conduct problems.

This complex relationship between war trauma and conduct problems in refugee children was explored in a review by Foster et al. (2015), which also indicated that children who had been exposed to war conflict and subsequent violence were more likely to display conduct problems. This mechanism appeared consistent across all selected areas and studies. The results of the review study did, however, suggest that these impacts can be minimized through familial support and a positive school environment. In addition, a study conducted during the same period explored the impact of political violence and conflict on 8-14-year-old Israeli Jewish and Arabic children (Landau et al., 2015). The resultant findings also highlighted the dynamic relationship between exposure to political, community and familial violence and their effects on children's behaviour, rather than the linear association with exposure to trauma found in the case of PTSD. These findings thus indicate the importance of multi-modal interventions that address family and community risk factors, instead of targeting the child alone (Ellis et al., 2013).

To date, there is relatively limited knowledge about the specific effects of such risk factors, and consequently how they might be addressed by interventions. This is particularly important as conduct problems include a range of heterogenous behaviours related to different factors such as impaired social learning, insecure attachment and emotional dysregulation, or developmental deficits (Kurki et al., 2017; England-Mason et al., 2018; Kien et al., 2018). Maršanić et al. (2014) further explored the role of family functioning and parent-child attachment in the development of conduct problems among 244 children of Croatian war veterans. The groups were evenly divided into children of veterans diagnosed with PTSD and children of veterans without a PTSD diagnosis. The findings suggested that the children of veterans with PTSD demonstrated higher rates of conduct problems compared to the children of

veterans without PTSD, with the greater parental and familial difficulties also noted amongst the PTSD group acting as moderating factors in this mechanism. This indicates that future research should measure specific family and parental factors, such as attachment relationships and parenting skills, as these would have different implications for the development of interventions, namely parental training or attachment-focussed programmes, respectively (Eruyar et al., 2018).

1.8 Summary

As a consequence of the Libyan conflict, the level of violence has increased, with ultimately around 90,000 Benghazian citizens having fled to neighbouring cities in recent years. This, in turn, has negatively affected Libyan children in those cities. Therefore, consideration should be given to protecting and improving children's well-being in the face of the ongoing violent conflict surrounding them. As discussed in this chapter, previous studies have shown that armed conflict has an adverse and often prolonged impact on children across the world as they are faced with fear, danger, physical harm, exploitation, violence, and loss of loved ones. Children are forced to move into refugee or displaced person camps where they are subjected to further traumatization. Moreover, parents cannot provide nurturing and emotional attention to their children, as they are generally affected by trauma themselves and are struggling to survive, thus compromising their parenting capacity. Armed groups take over or damage schools and playgrounds, thus further depriving children of their support networks. Such circumstances thus negatively affect children's mental health through direct and indirect pathways. On the other hand, it is well documented that many children who have also been subjected to such experiences may suffer distress but do not display symptoms that indicate the onset of mental health problems.

Therefore, it is also important to understand the protective function of a range of factors in the face of adversity which can act as ‘buffers’ to trauma exposure, and which should also inform the development of responsive and preventive intervention programmes. The following chapter will thus critically examine the roles of different risk (vulnerability) and protective (resilience) factors in children exposed to war conflict and subsequent displacement.

Chapter Two

The Role of Risk and Protective Factors Following Children's Exposure to War Trauma

2.1 Introduction

The aim of this chapter is to provide an integrated presentation of the existing evidence on the roles of both risk and protective factors following children's exposure to war trauma and displacement in relation to the development, and subsequent continuation of mental health problems. This body of research is based on different conflicts over the last two decades, particularly those in the Middle East (Kostelny and Garbarino, 1994; Slone and Mann, 2016; Thabet et al., 2004; Trentacosta et al., 2016). However, the exact status of children is often not clear, i.e., whether they largely remained within their communities or were displaced within their country, which is the primary focus of this thesis; or, of those who moved to other countries, whether they had sought or been granted asylum by the time of the research. Consequently, particular attention was paid to studies with internally displaced children whenever possible, or alternatively to refugee children in the broader sense applied in the previous chapter.

Similarly, the review mainly focussed on Middle Eastern countries such as Palestine, Iraq, Lebanon, Libya, Syria and Israel, as well as neighbouring African countries such as Somalia and Sudan. Research from this region is relatively limited in the literature, as has been acknowledged by reviews on refugee children's mental health (Reed et al., 2012; Eruyar et al., 2018; Hodes and Vostanis, 2018). Such reviews have approached the structure of complex and often interlinked factors through different frameworks, increasingly by adopting the ecological systems model (Bronfenbrenner, 1979). This will be discussed below and was also considered appropriate for this review because of the dynamic relationship between child, family and community-related factors.

2.2 Overview and definitions of risk and protective factors

In early research, protective factors were defined as either the inverse of risk factors (Hawkins et al., 1992), or as their mere absence (Costa et al., 1999). However, emerging findings suggested that protective factors may also occur independently of risk factors (Farrington and Loeber, 2000). For example, it was found that several factors, for example, supportive peer relationships appeared to offer a protective function against the development of mental health problems (Almquist et al., 1990; Montgomery, 2008), though the opposite did not necessarily hold true. Du Bois et al., (2002) and Shahar and Henrich (2016) thus showed that a lack of peer support did not increase the risk. Consequently, while positive outcomes associated with protective factors can counteract negative risk-related consequences, there is lack of clarity to date as to the nature of their relationship with corresponding risk variables. It has also been gradually acknowledged that factors such as parenting capacity or family functioning could be protective in certain contexts, but may pose a risk to the child's well-being in other circumstances (Bokszczanin, 2008; Banks and Weems, 2014; Hapke, 2015; Shahar and Henrich, 2016; Slone and Mann, 2016; Diab et al., 2018).

An increasing number of studies from the last two decades have examined different risk and protective factors in various communities that moderated the adverse effects of war on children (Cowan et al., 1996; Liu, 1996; Dickstein et al., 2012; Peltonen et al., 2014; Khamis, 2015; Fayyad et al., 2016; Shahar and Henrich, 2016; Smokowski et al., 2016). These were influenced by early research in the general population, particularly by Garmezy (1985), on the impact of different stressors on children's development. Such a study by Coie et al. (1993) found that risk factors to the child and their environment adversely impacted their optimal growth by creating, or exacerbating, some kind of 'problem condition'. Grizenko and Fishe (1992) stated that these risk factors could often predict

which children would manifest stress-related problems, even at a sub-clinical threshold. Initial studies included risk factors such as the child's temperament and their relationships with their families and peer groups. Increasingly though multiple risk factors across all social levels were concurrently measured, which was an important theoretical shift in recent research on the impacts of war (Miller and Jordans, 2016). Crucially, these studies began to show the interlinkage across risk or protective factors and social levels.

Concepts and their definitions have changed in policy, practice and research during this same period. While the main body of early research was largely focussed on risk and vulnerability, there has been increasing debates and changes in recent years to researchers' approaches to protective factors and, as discussed below, the increasingly influential concept of resilience. General (2001) stated that protective factors could provide a 'cushion' or 'buffer' for people in adverse environments, thus helping to negate the effects of the aforementioned risk factors to some extent. Cowan et al. (1996) proposed that, in contrast with risk factors, protective factors negated unwanted and poor outcomes. In addition, having conducted further in-depth studies, Luthar (2015) advanced the notion that risk- and protective factors are key elements in the construction of resilience. Essentially, the author suggested that resilience develops in response to, or as a result of, exposure to difficult life circumstances. Therefore, protective factors serve to foster and develop such capacity. Taking these major theoretical changes and their influence on research into consideration, it is important to adopt and justify why a particular conceptual framework is most suitable to the population under study.

2.3 Conceptual framework

The risk- and protective factors associated with a range of child mental health problems have been categorized and analysed using various different methods. The ecological systems framework, which was initially formulated by Bronfenbrenner (1979), was applied in this literature review. This can contextualize and integrate evidence related to childhood trauma by being cognisant of the various dynamic and interactive environmental levels which can impact upon a child (Bronfenbrenner, 2005). In applying this framework, a number of studies with refugee children (e.g., Kohrt, 2013) recognised the importance of exploring risk and protective factors in terms of their impact on the individual children concerned, as well as on their families and peers. Crucially, these multi-level principles have been adopted in the development of interventions and services for refugees and other vulnerable groups.

Rosshandler et al., (2016) explained how, in order to determine the impacts that stem from internecine conflict, a social ecological model considers person-specific and microsystem factors (e.g., peers, families and schools), in relation to trauma management approaches. Children's social and interpersonal skills, as well as their intellectual and mental capacities, are often greatly impacted upon by their microsystems, which also provide intimate domestic or peer support networks. Such networks should thus constitute the focus of improving coping strategies due to their centrality to a child's life and development.

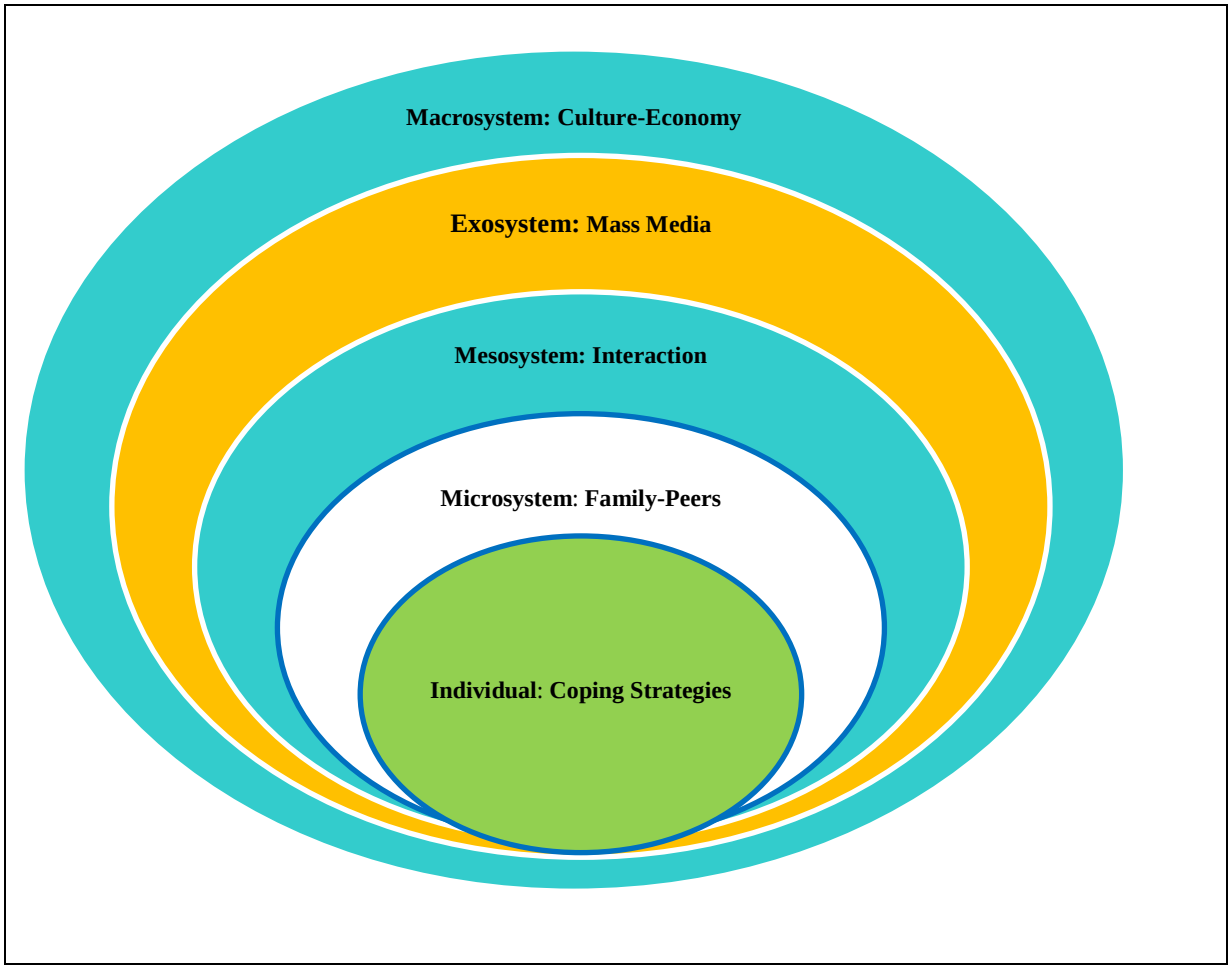
Over the last two decades, authors from Kazak and Rostain (1989) to Miller and Jordans (2016) have outlined a model in which five concentric circles of social settings surround children. Aspects such as the economy and cultural factors comprise the *Macrosystem*. Local politics and mass media or neighbours are examples of the *Exosystem*.

The connections between two *Microsystems* comprise the *Mesosystem*; peers and family or school form the *Microsystem*, while gender and age are individual factors.

As a result, an ever-increasing number of refugee studies are now underpinned by Bronfenbrenner's (1979) ecological systems framework as this takes broader environmental determinants into consideration within the field of child development and mental health. This approach recognises that developmental processes in children, including the maintenance of their mental well-being, occur within the context of a microenvironment which is influenced and shaped by the bonds children establish with their parents, family and friends.

Furthermore, macrosystems comprising community-based, social and cultural values interact with other elements at the micro-level. Therefore, in light of the linear relationship that exists between the effects of exposure to trauma on children's mental health, it is vital to acquire a greater understanding of the interconnectivity between the various ecological levels. This assists in the identification of the determinants which can enhance vulnerability, or, conversely, act as protective factors. It also provides the basis on which to ensure that appropriate supports and services are developed and, indeed, are made available to this target population. Figure 2.1 below illustrates the ecological systems involved.

Figure 2. 1 Socioeconomic Systems



Whilst acknowledging this interconnectedness between factors operating within each system, evidence related to the role of the most commonly established risk and protective factors is presented below. In addition, Table 2.1 summarizes the key methodological issues and findings. As some studies have addressed more than one level of the socioeconomic framework, these are briefly repeated in the appropriate sections. The aim of this table is to highlight the key factors at each level before these are discussed in more detail below. Also, a number of major studies or reviews were included from the generic literature to complement studies into the target group of refugee children, where the evidence was not extensive enough.

Table 2. 1 Summary of key findings relating to risk and protective factors structured according to the socioecological model

Authors	Sample	Key findings
	INDIVIDUAL FACTORS	
	Age	
Fitzpatrick (1993)	221 low-income African-American aged 7-14 years old who had been exposed to violence.	Older children were more vulnerable to the detrimental influences of violence than younger children.
Kostelny and Garbarino (1994)	40 Palestinian children aged 5-8 and 12-15 years old (equal-sized groups) from the West Bank.	Older children demonstrated more adaptive ability than younger children.
Macksoud and Aber (1996)	224 Lebanese children aged 10-16 years old.	The older a child was, the more likely they were to have experienced multiple traumas, but also demonstrated more adaptive behaviours than their younger counterparts.
Mels et al. (2010)	819 refugee and displaced children from Eastern Congo aged 13-21 years old.	Younger children were more at risk of developing PTSD.
	Gender	
Kostelny and Garbarino (1994)	40 Palestinian children aged 5-8 and 12-15 years old (equal-sized groups) in the West Bank.	Palestinian girls reported more interpersonal and behavioural problems than boys.
Macksoud and Aber (1996)	224 Lebanese children aged 10-16 years old.	Girls were found to have experienced less exposure to trauma than boys, but were nevertheless found to exhibit more emotional problems.
Misic (1999)	431 children exposed to violence from grades 8-12 in British Columbia.	Social support was not found to have a significant impact on male children's internalizing symptoms following exposure to violence. In contrast, social support was found to alleviate symptoms of depression amongst female children.
Thabet and Vostanis (2014)	462 children aged 7-18 years old in the Gaza Strip.	Females reported more depressive symptoms than males.

Thabet et al. (2015)	374 children aged 6-16 years old exposed to war trauma in Gaza.	There were no gender differences in terms of development of PTSD.
Fayyad et al. (2016)	710 adolescents in grades 7-12 from 20 schools in Lebanon.	Boys exhibited higher levels of resilience than girls.
Stark and Landis (2016)	Meta-analysis of 22 studies on children exposed to violence.	Boys reported higher levels of physical harm than girls.
	Self-esteem	
Sujoldžić et al. (2006)	15 refugee children from Bosnia and Herzegovina, aged 15 -18 years old.	Adolescents who manifested high self-esteem had fewer depressive and anxiety symptoms.
Slone and Mann (2016)	Systematic review of 35 studies, including 4,365 children exposed to war conflict.	Stressors were dealt with better by children who had positive self-images.
	Coping strategies	
Weisenberg et al. (1993)	492 Israel children, 74% of Middle-Eastern and 26% of Western origin	Among 7th and 10th graders, emotion-focussed strategies were associated with children's well-being, while problem-focussed strategies were associated with child mental health problems. Younger children who were in 5 graders were used problem focused more than emotion-focused strategies to deal with difficult situations.
Fields and Prinz (1997)	Review of 36 studies on relationship between coping strategies and child adjustment.	Support-seeking was associated with lower levels of internalizing and externalizing problems.
Khamis (2015)	205 Palestinian children aged 9-16 years old.	Children who were more able to solve problems developed more adaptive behaviours than those who relied on emotion-focussed strategies.
Braun-Lewensohn, (2015)	Israeli children aged 14-18 years old and exposed to missile attacks.	Using a comprehensive model is the best method with which to understanding children who experienced violent trauma. Furthermore, cultural differences are important when study children's coping strategy.
Soysa and Azar (2016)	120 children exposed to war in Sri Lanka.	Avoidance coping strategies were associated with child-reported PTSD symptoms.

Fayyad et al. (2016)	710 adolescents in grades 7-12 from 20 schools in Lebanon.	Boys were found to use more problem-solving strategies than girls.

FAMILY FACTORS

Parent-child attachment relationship

Thabet et al. (2009)	412 children aged 12–16 years in the Gaza Strip.	PTSD symptoms were inversely associated with parental support.
van Ee et al. (2016)	68 asylum-seeking and refugee parents in the Netherlands, and a child between 18–42 months old.	Parental PTSD was linked to insecure and disorganised attachment styles.
Dalgaard et al. (2016)	30 Middle Eastern refugee parents and their children aged 4-9 years old living in Denmark.	Insecure parental attachment style was associated with children externalizing problems. In contrast, secure attachment was related to modulated disclosure, i.e., parents' ability to appropriately discuss trauma with their children.
Eruyar et al. (2018)	263 Syrian refugee children in Turkey.	Insecure attachment style was associated with children's emotional and behavioural problems.

Parental mental health

Smith and Kudler (1989)	81 Vietnam veterans with PTSD and their children.	No association between parental and child mental health problems.
Rousseau et al. (1998)	156 refugee children living in Canada from Grades 3-6.	Association between depression in parents and emotional problems in their offspring.
Wolmer et al. (2000)	51 Israeli children aged 6-8 years old during the Gulf war.	Association between maternal psychopathology and children's PTSD.
Smith (2001)	339 children aged 9-14 years old exposed to war-related violence in Bosnia.	Association between parental and child mental well-being.
Weijers et al. (2018)	272 refugee parents from different countries (Dutch, Morocco, Surinam, Turkey, and other Western and non-Western countries) and their children aged 6–20 years old.	Reduced parenting stress was associated with improved child problem behaviour.

Parental and family support

Zeidner et al. (1993)	170 Israeli school children exposed to the Gulf War.	Children with greater access to support systems appeared to be more willing to speak about the conflict.
Tol et al. (2013)	Systematic review of studies on mental health of conflict-affected children.	A well-adjusted family life, free from force and abuse, mitigated the effects of traumatic situations on children.

Lambert et al. (2014)	Review of 34 articles and eight dissertations, with data on 12,118 parent–child dyads exposed to war trauma.	Exposure to war trauma may affect parenting capacity, which may in turn adversely impact on child mental well-being.
Trentacosta et al. (2016)	211 Iraqi refugee children and young people aged 8-22 years old and living in the US.	Stronger family relationships were related to lower levels of depressive symptoms.
Diab et al. (2018)	303 Palestinian children, average age of 10.94 years old.	Child mental health problems were associated with low family and peer support.
Thabet, A. A. et al. (2008)	100 Palestinian families, with 197 children and 200 parents. Children aged 9–18 years old.	Parental support was associated with children's mental health symptoms.

SCHOOL FACTORS

School attainment

Kanji and Cameron (2010)	7 Afghan refugees aged 13-17 years old and living in Canada.	Protective factors included being a positive member of society, achieving ambitions and goals, meeting new friends, and developing close relationships.

COMMUNITY FACTORS

Peer relationships

Berthold (2000)	144 Khmer refugee children in US high schools.	Lower levels of social support by peers were experienced by children with higher levels of mental health problems.
Montgomery (2008)	131 refugee children aged 8-9 years old from Middle Eastern countries living in Denmark.	Having Danish friends protected children from developing mental health problems.
Shahar et al. (2016)	362 Israeli adolescents aged 12-16 years old exposed to missile attacks.	Unlike family support, no mitigation through social support by friends was found between exposure to trauma and child mental health problems.
Rosshandler et al. (2016)	Review of 89 papers on risk and protective factors for PTSD.	Impaired family and peer relationships and negative coping strategies were associated with child mental health problems.

Neighbourhoods and social supports

Khawaja et al. (2008)	23 Sudanese refugee adults residing in Australia.	Social support provided by communities, families and others, offers protection against harmful effects of persecution and violence.

Gupta (2008)	315 displaced children aged 8–18 years old, enrolled in Grafton and Trade Centre camps.	Social support played a significant moderating role between trauma exposure and child mental health problems.
Stark and Landis (2016)	Meta-analysis of 22 studies on children exposed to community violence.	Nine of these studies demonstrated a relationship between exposure to community violence and child mental health problems.
Shahar and Henrich (2016)	362 Israeli adolescents aged 12-16 years old exposed to missile attacks.	Adolescents who viewed themselves as socially supported were found to function better.
	Socioeconomic status	
Ziv and Israeli (1973)	103 children with an average age of 10, living in violent neighbourhoods and 90 control children in Israel.	No significant differences on mental health problems between the two groups.
Simich et al. (2006)	220 Sudanese refugee adults and their children living in seven cities in Canada.	Children who were suffering economic hardship were more likely to experience mental health problems such as depression, loss of sleep or unhappiness.
Mels et al. (2010)	819 adolescents aged 13 to 21 years old in the Democratic Republic of Congo.	Displaced children who experienced food shortage, malnutrition and inadequate healthcare, were more vulnerable to these additional stressors.
Thabet et al. (2011)	780 children aged 9-18 years old in labour in the Gaza Strip.	Association between child mental health problems and socio-economic determinants such as working long hours and not having access to health care.
	SOCIETAL FACTORS	
	Exposure to trauma	
Chimienti et al. (1989)	1,039 Lebanese children aged 3-9 years.	There was a significant relationship between war trauma and aggression.
Kostelny and Garbarino (1994)	40 children and their mothers from the West Bank; 20 aged 5-8, and 20 aged 12-15 years old.	A relationship was noted between child mental health problems and exposure to Palestinian Intifada, specifically imprisonment of a family member. Moreover, younger children were affected more than older children.
Raundalen (2002)	214 Iraqi children aged 6-18 years old from the Gulf war.	Exposure to traumatic events was associated with sadness and remaining fearful of losing their family.
Durà-Vilà et al. (2013)	102 young refugees in primary and secondary schools in Westminster, London.	Refugee children were more likely to suffer from mental health problems if exposed to war trauma, particularly losing their families.
Maršanić et al. (2014)	Adolescents in Croatia aged 12–18 years.	Exposure to war was associated with anxiety, depression and PTSD symptoms.

Jabbar et al. (2014)	120 Syrian refugee children aged 7-12 years old; two control groups of same age and size from Ramtha and Amman.	Adverse impacts of war and conflict on the children of Syria.
Peltonen et al. (2014)	482 Palestinian children aged 10-13 years old in Gaza.	Among Palestinian children, 27% were defined as traumatized, and 20% as vulnerable.
Foster et al. (2015)	Review of 20 studies in four African countries (South Africa, Sierra Leone, Gambia and Rwanda).	Children who had been exposed to violence and war were more likely to display symptoms of aggression, depression and PTSD.
Landau et al. (2015)	Jewish and Arab children in Israel, each of 450 dyads with three age cohorts (8, 11 and 14 years old).	Positive correlation between exposure to political conflict and children's aggressive behaviour.
Trentacosta, et al. (2016)	211 Iraqi refugees aged 8-22 years old who had moved to the US.	Exposure to trauma was associated with mental health problems.
Chimienti et al. (1989)	1,039 Lebanese children aged 3-9 years.	There was a significant relationship between war trauma and aggression.
Kostelny and Garbarino (1994)	40 children and their mothers from the West Bank; 20 aged 5-8, and 20 aged 12-15 years old.	A relationship was noted between child mental health problems and exposure to Palestinian Intifada, specifically imprisonment of a family member. Moreover, younger children were affected more than older children.

2.4. Individual factors

The evidence on the roles of age, gender, self-esteem, temperament, physical illness, and coping strategies in relation to the mental health of war-affected and refugee children is considered in more detail below.

2.4.1 Age

Although the role of age has been widely studied in relation to the mental health of children exposed to war trauma, the emergent findings have been inconclusive. These findings range from supporting the view that older age can be a risk factor (Fitzpatrick, 1993; Macksoud and Abe, 1996; Karam, 2014; Masten et al., 2015) to establishing no age-related risk (Bell and Jenkins, 1993; Mels et al., 2010), or conversely that younger children are more at risk (Slone and Mann, 2016).

Several explanations have been put forward for the most common finding, namely that the likelihood of developing mental health problems increases with age. Teenagers are more likely to play an active role during political conflict through demonstrations and other types of activism, which increases the probability of both witnessing violence and suffering directly through arrests, beatings or torture (Fitzpatrick, 1993). This was highlighted in research carried out by Thabet et al. (2004) whereby trauma exposure was proportionate to age, as evidenced by the participation of youths in political demonstrations during the conflict in Palestine. Other reasons are related to the onset of certain disorders, mainly depression, during adolescence (Green et al, 2005). Although the aetiology of depression and other disorders is not clear, the biochemical, hormonal and cognitive determinants identified are all believed to be age-related, namely that they peak during adolescence.

The opposite finding – as reported by a smaller number of studies – that younger children are more likely to be affected has been attributed to various reasons, as well as to different types of psychopathology. In an early study, Bell and Jenkins (1993) proposed that younger children express their distress through aggression, rather than articulating it as adolescents do, because of their less well-developed cognitive capacity. For similar reasons, younger children can be more limited in their ability to develop adaptive resilience strategies. Because of their lack of independence, they can also be affected to a greater

extent by poor mental health in their parents as a response to war (Mels, Derluyn, Broekaert, and Rosseel, 2010).

Interestingly, age is a factor that, in different contexts, can act as both a risk and a protective factor. For example, in an early study with Palestinian children, Macksoud and Abe (1996) measured exposure to conflict, PTSD and other mental health symptoms, as well as adaptive functioning, through both questionnaires and structured interviews. The older a child was, the more likely they were to have experienced multiple traumas, although these may have been purely the outcome of having been exposed to conflict for longer periods. However, older children also demonstrated more adaptive behaviours than their younger counterparts, which may have reflected their experience, social and cognitive capacity, and resulting coping strategies. Thus, the impact of age is possibly dependent on its interaction with other risk and protective factors.

2.4.2 Gender

The role of gender also shows inconsistent patterns, though to a lesser degree. In the majority of the research conducted, for example, by Berthold (2000) and Morgos et al. (2008), gender has been associated with specific mental health problems or disorders, thus reflecting the generic literature on mental health. Some studies, however, have not elicited any gender differences in the face of war trauma (Angel et al., 2001; Thabet et al., 2015).

Overall, emotional problems such as anxiety and depression, particularly during adolescence, are more prevalent among girls (Kostelny and Garbarino, 1994; Taiwan and Liu, 1996). This does not seem to apply to PTSD, however, which is the main condition with either no apparent gender impact or inconsistent findings in this regard (Thabet et al., 2015). In contrast, boys typically display more externalizing behaviours (Dapo and

Kolenovic-Dapo, 2000; Mels et al., 2010). These patterns largely apply to both generic studies, which use community or clinical samples, and to war-affected children.

Furthermore, psychopathological mechanisms and their connection to conflict have been evidenced to be influenced by gender. When these processes were investigated in more depth, the majority of studies revealed some sensitivity or shielding from stressors according to gender. In an early and influential investigation of teenagers in Taiwan, Liu (1996) considered the sources of anxiety stemming from the opposite gender, peers, families, individuals and schools, in relation to how support from family and peers can impact on these sources. For each of these sources, Liu revealed that avoidance or emotional management strategies were used to a lesser extent than instrumental management strategies. The latter were used by both genders to the same extent when responding to the five sources of anxiety. However, males' use of problem-solving strategies was more marked than for females. For these reasons, gender effects can be better understood in conjunction with theories and evidence into the role of different coping strategies, as discussed below.

Other studies examined gender difference in relation to protective factors or resulting resilience in the face of war conflict. Peltonen et al. (2014) found that 33% of the 482 Palestinian school-age children in their study were defined as 'resilient' as, although they had been exposed to high war trauma exposure, they had not developed mental health problems; a further 20% were categorized as 'spared', who did not have mental health problems either, but following only low exposure to war trauma. Of the remainder, 27% were designated as being 'traumatized', namely those who had experienced high exposure and reported mental health problems, and the remaining 20% were defined as 'vulnerable' because they had developed mental health problems following low exposure. Children in the resilient group, in particular, displayed large numbers of friendships in contrast to those

described as traumatized and vulnerable, indicating that boys' resilience was particularly underpinned by high-quality friendships, at least within their cultural context. However, Butcher et al. (2015) found that free estimation techniques for gender-based structural paths resulted in the variables within the hypothesized associations being weaker for males than females. This pattern was not replicated in all studies, however; for example, in that by Thabet et al. (2018) that considered a further sample of 449 Palestinian children exposed to war trauma.

Sociocultural factors appear to interact with both exposure and gender in terms of affecting children's mental health. Kostelny and Garbarino (1994) found that Palestinian girls reported a larger number of mental health problems than boys. However, when they only included children who had been exposed at least twice to violence, boys reported higher mental health scores. As already discussed in relation to teenagers when compared with younger children, boys were more likely to actively participate in demonstrations, thus face the cumulative impact of more and severe traumatic events (Fayyad et al., 2016). They may also be more prone to externalizing this exposure, in contrast with girls who suffer more indirect exposure but are more likely to internalize their distress (Macksoud and Aber, 1996). In general, there is no agreement as to whether male or female children are selectively affected. However, the role of gender remains important, both developmentally and culturally, in formulating children's mental health needs and in designing appropriate interventions. In turn, both age and gender are interlinked with cognitive and psychological processes such as self-esteem, which can act as mediators in the face of war trauma.

2.4.3 Self-esteem

Whilst the literature explores various factors associated with the mental health of children exposed to war and conflict, relatively few studies have addressed the impact of self-esteem on this relationship. There is some evidence in the literature that children's mental health may be indirectly influenced by self-esteem via the factors associated with it, which can either serve to minimize or increase children's risk of developing mental health problems as a result of war-related trauma (Fazel et al., 2012; Al-Shawi and Lafta, 2015; Orth and Robins, 2016).

This concept can be described as one's perception of how they feel about themselves. Low self-esteem infers a low opinion of oneself, which is a commonly established feature among victims of physical and sexual abuse (Baumeister et al., 1996). If the opposite is the case, the young person concerned has a buoyant and positive self-image. A number of researchers have argued that self-esteem cannot be held to objective standards, and that it is a subjective characteristic in its entirety (e.g., Orth and Robins, 2016).

Baumeister et al. (2003) suggested caution in oversimplifying the independent effects of self-esteem or related concepts such as self-worth in isolation from other psychological factors. For example, Sujoldžić et al. (2006) found that Bosnian refugee children who attended school had high self-esteem and few depressive and anxiety symptoms, which indicated the importance of the interaction between self-esteem and psychopathology. More sophisticated research designs thus increasingly investigated the role of self-esteem through multi-factorial modelling. One consistent finding has been that negative aspects of everyday life are more likely to be highlighted by young people with low self-esteem, and that this extends to their ability to deal with stressors (Orth and Robins, 2016).

The capacity to assimilate, adapt and settle in new environments with confidence is, therefore, strongly connected with *both* the quality of the events experienced by the child *and* the qualities of their environment (AlShawi and Lafta, 2015). In this study, respondents with a greater sense of self-esteem were less likely to become depressed. Adopting a vulnerability model of trauma consequently requires an understanding of a number of individual, as well as external processes. Current knowledge has been particularly influenced by research into children's coping styles and strategies in response to stressors. Based on previous studies, self-esteem can be viewed as one component of mental well-being and adjustment, in contrast with low self-esteem which is linked with child maladaptation.

2.4.4 Temperament

While few studies to date have specifically focussed on the impact of temperament on the mental health of refugee children, those that have been undertaken suggest that it is an important consideration. Temperament refers to an individual's emotional disposition, and it can also encompass mood-related aspects such as variation in the intensity and quality of one's emotional state, as well as their usual level, rate and responsiveness to emotional stimulation. A number of theories and underpinning classifications have been suggested.

Thomas and Chess (1977) were the first to develop such an influential theory, which suggested that temperament indicates an overall overarching style concerning a child's responses instead of their motivation to respond in specific ways. Thus, they categorized children into three groups according to their unique temperament types, such as being easy, slow to warm up, or difficult. According to Thomas and Chess (1977), easy children were positively adaptable, mild, approachable, and regular in their responses. Slow to warm up

children had moderately negative moods, low activity levels, low adaptability, and were prone to social withdrawal. Difficult children were described as negative, irregular, intense, also withdrawing, and with low adaptability. The authors further stated that it is important to distinguish between temperament and abilities, and personality (largely used for adults over the age of 18), and motivation; also, that temperament tends to be a response to an external stimulus, expectation, demand, or opportunity, and can be regarded as the child's attribute that affects their environment.

For example, Rutter and Garmezy (1983), among others, identified that some children display greater resilience in the face of adversity than others. Despite little research being available to date to inform us of the moderating role temperament can play in children's responses to challenging situations since the early studies by Rutter (1983), some temperament-related qualities, which could be genetic or biological in nature, may serve as protective factors. Derryberry and Rothbart (1984) cited two such examples, namely adaptability and mood, which can perform a regulatory function. They suggested that children who exhibited positive moods and were more amenable to change appeared less susceptible to stress reactions.

Structural analysis was subsequently used to develop taxonomies of personality and temperament, which led to various models according to the number of core traits determined (e.g., Tellegen, 1985; Watson and Clark, 1993). As noted by Markon et al. (2005), however, some of these models can be hierarchically arranged and are not mutually exclusive. Markon et al. (2005) suggested two super-factors for classifying temperament, alpha and beta, wherein alpha includes disinhibition as well as negative emotionality (NE), with anger, fear, and sadness forming the lower-order facets of NE. The beta factor refers to positive emotionality (PE).

Despite early interest in temperament styles in child development research, in more recent years this factor has not been extensively examined in relation to child mental health problems, and among refugees and other conflict-affected groups. Challenges to assessing children's temperament traits may be one of the major reasons behind the lack of evidence on how child temperament is connected to mental health symptoms. Although self-reports tend to be held as the benchmark for adult personality studies (however, also see Furr and Funder (2007), and Durbin et al. (2009), for examples of observational research on adult personality), there has been no consensus on an appropriate methodology by which to conduct research into child temperament. A large number of studies into child temperament have relied on parent reports. These have certain benefits, such as being affordable and eliciting parents' exposure to their children's behaviour in various settings (Rothbart et al., 2001; Rothbart and Bates, 2006). On the other hand, parents' reports of child temperament can include parental bias as a result of the impact of these behaviours (Durbin et al., 2007; Hayden et al, 2010).

Other approaches have been used sparingly, especially with refugee and war-affected children, but offer interesting potential for future research. For example, using a narrative analysis methodology, Cortes and Buchanan (2007) recruited six Colombian child soldiers who, having engaged in armed combat, did not display symptoms typically associated with trauma. This study specifically sought to establish the strategies and resources this cohort drew upon to moderate the impact of war trauma, thus remaining resilient in the face of extreme adversity. Their findings identified positive affects (or mood) as the distinct characteristics that explained these children's ability to surmount enormous difficulties. Certain temperament traits thus seem to be associated with child adjustment, usually through their interaction with other protective factors, and that consequently help children to become more resilient.

2.4.5 Physical illness and symptoms

A wide range of physical health conditions can be experienced as a result of exposure to war trauma. For example, UNICEF (2015) reported that war-related events such as terrorist attacks, landmine explosions, bombing and armed combat have resulted in the deaths of approximately five million children over the previous two decades, with more than ten million also suffering severe injuries resulting in long-term disabilities. As Adjukovic and Adjukovic (1998) noted, such injuries not only lead to significant pain and time spent in hospital, but also to associated psychological trauma that severely impacts children's development and ability to function in daily life.

From a physiological perspective, symptoms can manifest as physical pain or discomfort. In addition, this type of traumatic experience can stimulate the nervous system. If these symptoms and physiological processes continue over an extended period, they can lead to somatic symptoms, i.e., physical presentations without an organic explanation, which are thus attributed to psychological causes. These include muscular tension, breathlessness and different types of pain (mainly headaches or abdominal pain).

An earlier study by Geltman et al. (2008) examined the health outcomes of 304 unaccompanied minors who were living in the US who were originally from Sudan. They found that somatic symptomatology resulted in children's high uptake of physical rather than mental health services, although a high proportion of those with PTSD did make use of counselling resources. Similarly, Bettancourt et al. (2012) studied 60 war-affected refugee children in Boston, US. They used clinical assessments to determine various somatic and mental symptoms, and found that 26.8 % of the children displayed somatization as opposed to 30.4 % displaying PTSD, 26.8 % displaying general anxiety, 21.4 % displaying traumatic grief, and 21.4 % displaying behavioural problems, and with extensive comorbidity between these presentations.

Based on these findings regarding the close association or comorbidity between PTSD and somatic symptoms, some researchers suggested that somatization and life-functioning difficulties should be added to the five existing PTSD criteria for refugees (Oldsen, 2005). Others attributed the findings to overlap and comorbidity between somatic, emotional and neurodevelopmental symptoms (Thabet et al., 2011). Another plausible explanation, which has important implications for engagement with services, assessment and treatment, is the cultural context of refugee groups who, unlike Western populations, are more likely to express and communicate their distress in a physical, rather than a verbal, manner.

It is well established that mental health problems defined by using Western diagnostic criteria are often not similarly conceptualized in other cultural contexts. These societies or communities often explain mental health symptoms (at least partially) in terms of physical, spiritual or supernatural causes (Tamburino et al., 2018). Examples include Chinese neurasthenia, Caribbean voodoo, or French '*crise-de-foie*', which refers to the general exhaustion that may result from liver problems. Somatization can thus be regarded as a method of expressing distress in a socially, as well as a culturally acceptable manner (Kirmayer and Young, 1998; Ryder et al., 2008). Hence, it is important, as raised by Hinton et al. (2013), to evaluate both the nature and understanding of physical presentations among refugee children and their parents.

2.4.6 Coping strategies

The promotion of coping strategies has increasingly been integrated into various types of psychosocial interventions in recent years through the influence of positive psychology. Earlier work carried out in this area by Folkman and Lazarus (1985) highlighted the value of creating greater awareness of how individuals can successfully manage the wide range of potential challenges they have to contend with. Indeed, 'coping'

is a purposeful attempt to maintain stable emotions, cognitive faculties, behaviours and physiology, when an individual faces stress (Krok, 2008). Despite the large body of research, there is no consensus on how children's coping strategies can best be conceptualized and differentiated. Several theories and definitions have been proposed to this effect (Compas, 1998). These diverse theories have also resulted in the development of a range of measures (Aldwin, 2007).

Lazarus and Folkman (1984) developed the most influential and widely used framework. The authors differentiated between problem-focussed coping strategies, which include changing circumstances by taking action, generating solutions, and seeking information, and emotion-focussed coping strategies, which include expressing emotions, seeking support from others, and avoiding the stressor. Billings and Moos (1981) and Ebata and Moos (1991) developed another model that classified strategies into engagement (approach or active) coping that referred to responses that focussed on the stress source, such as problem-solving and disengagement (avoidance or passive coping), that referred to responses that were not focussed on the stressor. Although there have been many studies adopting such broad classifications among children, several researchers also noted that it is not possible to use two general categories to effectively convey children's coping strategies, as such psychological processes are complex. Hence, Compas et al. (2001) and Skinner et al. (2003) recommended the use of methods that are both theory- and data-driven, usually through confirmatory factor analysis.

Based on these recommendations, Ayers (1992) and Ayers et al. (1996) suggested an empirically supported model that classifies children's coping styles into the following four types, each of which are conceptually distinct:

(a) Active coping: problem-focussed approaches, through which children attempt to directly modify the problem or how they respond to the problem.

(b) Avoidance coping: cognitive strategies that include behavioural components, i.e., thinking of and being exposed to the stressor.

(c) Distraction coping: behavioural strategies that include using an activity to distract the child from the stressor, so that it encourages a physical release of emotions.

(d) Support-seeking coping: actively asking for support from peers, family or other adults when faced with stress.

Ayers and colleagues used confirmatory factor analysis to determine that, compared to the two-factor models, their four-factor model was more accurate in terms of identifying the structures of children's coping strategies. This could be because the two-factor models were designed for adults, rather than children, the former of whom may have more fully developed coping styles. For this reason, the present study adopted the four-factor model of problem-solving, avoidance, distraction, and support-seeking coping strategies.

Another broad area of coping strategies relates to religion and spirituality. For example, according to Koenig et al. (1998), religious coping occurs when general religious behaviour and beliefs are translated into response styles that allow individuals to cope with the adversity in their lives. Religious practices, such as attending services, watching religious television programmes or praying several times a week, may not be considered to be religious coping unless they are translated into adaptive strategies that enable people to deal with negative life events. Pargament (1990) defines this link in terms of religious coping being concerned with the specific relationship between the outcomes of life events and a person's religious practice.

The same research group (Pargament et al., 1998) proposed that mental health is directly impacted by two specific types and patterns of religious coping, namely positive and negative coping. A positive religious coping pattern comprises various elements, including seeking forgiveness and spiritual support, benevolent religious reappraisal, collaborative religious coping, and the notion of purification. On the other hand, negative religious coping adopts a more threatening view of the world and is centred on the idea of the punishing power of God, spiritual and religious discontent, and demonic reappraisal (Pargament et al., 1998).

Compared to the generic child mental health literature, relatively few studies have explored the relationship between different coping strategies and child mental health in the context of refugees. The transferability of findings has also been constrained by the range of frameworks and measures used. Jones and Kafetsios (2005) noted that research conducted in Bosnia, Palestine and other countries impacted by war and conflict suggest that the development of mental health problems amongst refugees and displaced people may be influenced by their attempts to understand their experiences of war, whilst also attempting to process a moral and social understanding.

Overall, most studies used the Lazarus two-factor model of problem- and emotion-focussed strategies, with the majority showing the protective effect of problem-solving responses. By contrast, the majority of such studies in conflict or post-conflict contexts found a significant association between emotion-focussed coping strategies and PTSD or other mental health problems (Kocijan-Hercigonja et al., 1998; Dickstein et al., 2012; Khamis, 2015; Soysa and Azar, 2016; Undheim et al., 2016). For example, in examining the longer-term effects of war on children in the Gaza Strip, Khamis (2015) recruited 205 children aged 9 to 16 years old. The authors found that approximately 30% of the Palestinian children caught up in the conflict reported PTSD symptoms of clinical

significance, with high comorbidity with other emotional presentations. In this study, problem-focussed coping strategies retained inverse associations with neuroticism and PTSD symptoms, whereas emotion-focussed coping was positively associated with both measures.

This pattern was replicated by Braun-Lewensohn et al. (2015) with a sample of 913 Israeli children aged between 12 and 18 years old. Problem-solving strategies were most commonly used and were associated with child adjustment. In contrast, emotion-focussed strategies were associated with PTSD and other mental health problems. This profile, however, was incongruent with an earlier study by Weisenberg et al, (1993), also conducted in Israel with a sample of 492 children, who found that emotion-focussed strategies were associated with child well-being, while problem-focussed responses were linked with child mental health problems.

Some of the conflicting findings may be attributed to the different tools used to measure children's coping strategies, including questionnaires, self-reporting, observations, and semi-structured interviews. Another limitation is that the majority of these tools were created to assess adults rather than children. These instruments often lacked any evaluation of their psychometric properties, as well as cultural and developmental adaptation (Compas, 1998; Fransen, 2015).

Other studies used different coping frameworks that examined the joint role of religion and support-seeking. For example, in a study conducted by Sujoldžić et al. (2006) with a sample of displaced teenagers in Bosnia, the researchers measured self-reported commitment to faith and engagement with religious activities within the community. They found that the likelihood of suffering from both depression and anxiety was reduced through greater dedication to and engagement with religion. The study by Kocijan-

Hercigonja et al. (1998) involved children exposed to war conflict in Croatia. The type and frequency of coping strategies was significantly related to psychosocial adjustment, with those participants who used emotion-focussed coping strategies demonstrating better psychosocial outcomes. Another important finding of this study was that refugee children were more affected mentally and were less likely to use adaptive coping strategies than two comparison groups of displaced and non-displaced children. The authors explained this finding as being due to refugee children coming from rural areas where they used coping strategies such as walking in nature or having domestic animals as pets, and accordingly managed better in their new environments than children and families originating from urban areas.

Despite their differing conclusions, these studies all reveal that conflict and post-conflict situations are both characterized by a plethora of emotion-focussed and problem-solving-focussed strategies. Overall, the available evidence strongly suggests that emotion-focussed coping responses result in more negative psychosocial outcomes. More recent studies have attempted to establish the mechanisms that underpin these associations. Self-efficacy has been identified as one such moderating factor. Children lacking suitable coping skills, as well as the capacity to evaluate their skills in addressing complex situations, are at higher risk of displaying internalizing difficulties (Compas et al., 2001). In contrast, children who have confidence in their abilities often regard stressful situations as challenges rather than threats and are thus more likely to experience positive outcomes.

Crucially, coping strategies do not operate in isolation from environmental factors, but instead the two are interlinked. As will be discussed in a following section, in the absence of parental support, children have to cope by themselves and are less likely to develop adaptive coping skills (Murdaca, 2008; Williamson et al., 2017). Consequently, the literature suggests that children applying problem-solving and social support-seeking

strategies within family and wider support systems have a better chance of building resilience following war and other types of trauma (Bokszczanin, 2008; Shahar and Henrich, 2016). These dynamically related family and community factors are considered below.

2.5 School factors

2.5.1 School attainment

School offers a safe haven outside the family unit and the community. For some children, this may be their only place of physical and emotional safety. According to Oldfield et al. (2016), school is one of the key settings in which children can be provided with continuity of care, and, in so doing, it fulfils an important function in childhood development within existing contemporary social structures. For example, teachers play a crucial role in determining the extent to which children can experience this sense of security. Within an education context, children are exposed to nurturing and other positive influences, thus begin to model themselves on adaptive behaviours such as care and forgiveness, and to develop adaptive coping strategies. Such qualities can often be largely absent during wartime or in communities with a high incidence of criminal activities (Veronese et al., 2017). The positive feedback and expectations conveyed by adults in positions of authority, such as teachers, can become a self-fulling prophesy, thus building self-belief among children. Other well-established school-related protective factors represent opportunities to benefit from the previously discussed friendships and interpersonal supports, learning, and achieving one's potential, and hence to developing the self-efficacy and confidence that can be generated across other life situations (UNICEF, 2019).

Refugee children and their teachers are, however, also faced with a number of challenges. Refugee and displaced children often do not have access to a means of

education, especially during periods of migration. In 2017, 25.4 million refugees were recorded globally, with 19.9 million of those receiving protection and humanitarian support as mandated by the Office of the United Nations High Commissioner for Refugees (UNHCR). Children accounted for just over half of all refugees (52% or 10.3 million), of whom 7.4 million were of school-going age (UNHCR, 2018). Despite this, only 61% of this cohort were receiving an education of some nature. This fell significantly short of the global figure, which stands at 92%. Common reasons for this include: a lack of sufficient school places, especially in low-income countries and conflict-affected communities; children's movement during migration; uncertainty over their futures; cultural and language barriers; and limited available places in the host country, even in well-resourced systems.

When refugee children are able to access education, its multiple positive effects have been demonstrated by several studies (UNICEF, 2019). In a study of Afghan refugee children living in Canada, participants reported that they found school helpful in terms of being positive members of society, achieving their ambitions and goals, meeting new friends, and developing close relationships (Kanji and Cameron, 2010).

Conversely, when refugee children face difficulties at their new schools such as discrimination and exclusion, these can compound their already fragile mental health. In a study conducted in Croatia, the severity of depression among school-age refugee children was found to be linked to problems at school and the inability to cope with displacement, with each of these factors impacting more on depressive symptoms than the previous exposure to trauma (Ajdukovic and Ajdukovic, 1998). These findings supported the mechanisms discussed in the previous chapter, in that PTSD symptoms are usually predicted by war trauma exposure, while depressive and, to lesser extent anxiety symptoms are often predicted by current adversities.

2.6 Parent and family-related factors

Parental support comprises a wide range of elements including care, warmth and nurturing. These are essential both for the child and the optimal functioning of the family system (Barber, 2008). Different theories have contributed to our understanding of these parental components, with attachment theory being of most influence, both for children in the general population and those exposed to trauma.

2.6.1 Parent-child attachment relationship

Bowlby (1973) asserted that, by the time children become toddlers, they have already developed a perception of the world around them and how it operates, how they fit into it, and how their primary caregivers interact with events that arise within it. Bowlby argued that for children to develop a solid sense of confidence, they must perceive themselves as being safe with their primary caregivers by developing a secure relationship with them. Several researchers built on attachment theory by investigating its implications for different life contexts. Hamilton et al. (2000) further argued that it is this secure attachment that creates healthy, emotionally, mentally and behaviourally stable adults.

The focus of such research gradually shifted to children who had difficult upbringings and who thus suffered disrupted attachment relationships, such as children who had experienced abuse, neglect and other types of trauma. Stauffer (2009) proposed that traumatic events encountered during childhood can severely disrupt a child's attachment to his or her primary caregiver, and consequently disrupt their ability to function emotionally, socially, cognitively and physiologically. Subsequent studies showed that children have the capacity to form attachment relationships with multiple caregivers

(Banks and Weems, 2014; Slone and Mann, 2016), which has important implications for children without one or both of their biological parents, such as unaccompanied minors.

Furthermore, if children do not establish secure attachment relationships with their caregivers or other important adults, a negative cycle can be established that results in further rejections and attachment disruption, which further leads to adverse psychosocial outcomes, predominantly emotional dysregulation and aggression (Loeber and Farrington, 2001). For example, as Rutter (1985) noted, considerable insight has been gained into the link between children's mental health and attachment patterns. Several researchers such as Cooper, Shaver and Collins (1998), Morris et al, (2007) and Abraham and Kerns (2013), asserted that secure attachment is associated with stable perceptions of the world, others and the self, good interpersonal relationships and social skills, effective problem-solving abilities, emotional self-regulation, and the ability to properly process input and information. Consequently, Masten and Coatsworth (1998) argued that secure attachment is vital to children's long-term development and ability to adapt to life's challenges.

Other researchers explored the impact of different types of disrupted attachment styles, namely the insecure, avoidant, disinhibited and disorganized types. For example, Lyons-Roth (1996) and Allen et al. (2007) linked insecure attachment to emotional dysregulation and aggressive behaviour, whilst Brumariu and Kerns (2010) also highlighted the connection between insecure attachment and anxiety, depression and other emotional problems. The impact of disorganized attachment has also been explored in the literature, with researchers such as Carlson et al. (2009) linking it to the development of borderline personality disorders in adult life. Carlson (1998) linked it to dissociative disorders, and Leschied et al. (2005) to conduct disorders, which can also precipitate borderline personality disorders. The findings of these studies indicate that a range of serious mental health presentations and disorders in young life and adulthood are common

amongst individuals who have suffered abuse and neglect, and were subsequently placed in public care as children.

Although there has been limited research into the role of attachment relationships in refugee children, there has been increasing interest in recent years, as indeed with other vulnerable groups, that has focussed predominantly on children in foster and residential care or those who have been adopted. Parental loss and disrupted attachment can thus partly explain the higher rates of mental health problems among unaccompanied minors compared with refugee children living with their parents. These are also accounted for by the higher likelihood of exploitation and retraumatization within this group (Huemer and Vostanis, 2010; Kien et al., 2018). Within refugee families, war conflict and displacement have also been found to disrupt attachment relationships and emotional communication (Eruyar et al., 2018; Weijers et al., 2018). Additionally, refugee children are a particularly vulnerable group due to their exposure to repeated and various forms of trauma, such as parental mental illness, injury, separation or death (Waters et al., 2000). This places child refugees at greater risk of developing insecure or maladaptive attachment patterns, which further increases their risk of developing social, emotional, cognitive and physiological difficulties.

This argument is supported by the findings of van Ee et al. (2016), who found that parental PTSD was linked to insecure and disorganized attachment in a study of 68 refugee parents and their infants. In another study, as conducted by Dalgaard et al. (2016) with refugee parents from the Middle East, attachment style and externalization of symptoms were found to be negatively correlated. Conversely, secure attachment was found to be related to modulated disclosure, i.e., parents' abilities to appropriately discuss trauma with their children. Based on the results of these studies, positive and healthy development appears to be more likely when children and parents are securely attached, with secure

attachment minimizing the risk of detrimental development patterns in children. The results also indicated that children and adults who have experienced trauma are more likely to demonstrate good adjustment, better social skills and higher self-esteem when they belong to a securely attached family unit.

2.6.2. Parenting styles

In addition to attachment theory, the social learning model, as based on Bandura and Walters' modelling (1963) and Patterson's coercion theory (1982), has hugely influenced the understanding of parenting styles and mechanisms leading to children's behavioural (conduct) problems; it has consequently informed the development of universal and targeted parenting interventions. This approach states that children learn to (mis)behave based on their interaction with important role models, in particular their parents. The modelling of behaviour is based on how parents positively or negatively reinforce their children's behaviour. Positive reinforcement, such as attention, praise and rewards, encourage children's pro-social behaviour and its sustainability (Wahler, 1976). In contrast, negative reinforcers such as verbal or physical punishment maintain, or even accentuate children's aggression (Durkin, 1995; Scott, 2002). In other words, it is possible for parents to both positively and negatively reinforce their children's behaviour.

Consequently, some researchers divided parenting styles into the dimensions of warmth and control. A body of research also led to the influential classification according to three types of authoritative, authoritarian and permissive parenting (Baumrind, 1970, p. 104). Parents who use an authoritative style may be considered demanding and controlling, yet they are rational, warm and prepared to listen to their children; parents who adopt an authoritarian approach, by contrast, are seen as controlling but exhibit less warmth. Meanwhile, the permissive parenting style is relatively warm, but is also non-demanding

and non-controlling. Baumrind's descriptions are derived from the two dimensions mentioned previously. Maccoby and Martin (1983) subsequently added a fourth parenting style, that of being rejecting or uninvolved/neglectful (which is low-warmth and non-controlling), but also recategorized the other three parenting styles as being demanding/undemanding as appropriate.

Many studies have demonstrated the association between negative parenting styles (mainly characterized by rejection, lack of warmth and authoritarian attitudes) and behavioural problems in children, with continuities of antisocial behaviour into adult life (Morris et al., 2007; Jouriles et al., 2009). In contrast, only few studies have focussed on refugee children (Gewirtz et al., 2008; Williams, 2010). In these few studies, a similar relationship to generic studies has been observed between negative parenting practices such as rejection (Ajdukovic, 1998) and severe discipline (Khamis, 2005), and the development of child mental health problems. Moreover, Qouta et al. (2008) found an association between punitive parenting and parent- and teacher-rated aggression among 640 Palestinian children, while supportive parenting practices, including negotiating skills, moderated the impact of war-related trauma on aggression. This pattern has, however, not been consistent. For example, Aitcheson et al. (2017) were unable to replicate the relationship between negative rearing practices and the mental health of 335 Palestinian adolescents living in refugee camps.

Overall, though, evidence indicates that the underlying mechanism is the adverse effect of conflict on parenting capacity through unemployment, loss of networks and their own ill mental health; this in turn affects children's well-being (Lambert et al., 2014). Furthermore, it is generally agreed in the literature that warm and authoritative positive parenting styles play a protective role in terms of children's mental health. Milevsky et al. (2007) and Eruyar et al. (2018) argued that negative or maladaptive parenting styles

(authoritarian, rejecting or over-protective) were strongly associated with behavioural problems but not with PTSD, which was instead predicted by war trauma.

These findings are corroborated by research based on children's perspectives. Berthold (2000) drew upon a sample of 144 Khmer parent-adolescent pairs. Having controlled for the impact of trauma, young people who perceived that they were being provided with adequate parental care were less likely to report symptoms of depression or post-traumatic stress disorder compared to those who received lower parental support. Furthermore, Bokszczanin (2008) and Shahar and Henrich (2016) found that children who viewed themselves as being supported by their parents were able to function better after a disaster. Thus, not just actual parental and social support, but also children's perceptions of being supported and cared for, played a protective role. Even after variables related to demographics and trauma exposure had been taken into account, children who did not believe that they were adequately supported by their parents were at higher risk of manifesting mental health problems such as post-traumatic stress disorder.

2.6.3. Family support

The above parenting factors are often associated with other family functions which are also negated following conflict and displacement (Reed et al, 2012). Hasanović et al. (2005) found that children who had had a parent killed during the war, and thus the resulting change in the family composition and grief of the remaining parent (usually the mother) were more likely to experience post-traumatic stress disorder. Sujoldžić et al. (2006) reported an association between impaired family relationships and depression in refugee children.

Family support was found to play an important role, even when the severity of the trauma experienced was low (Trentacosta, McLear, Ziadni, Lumley, and Arfken, 2016). Some studies were not able to replicate this finding, and explained this discrepancy from the perspective that the parent or family unit was also affected by war trauma and the resulting adversities (McCloskey et al., 1995). In turn, all previously discussed factors are often moderated by parental mental illness, which will be discussed in more detail in the following section (van Loon et al., 2014). It is important to highlight the fact of this association being bidirectional, in that children's challenging behaviour places additional strain on both parental mental well-being and parenting capacity. For instance, Williamson et al. (2017) investigated the role of parental support for children exposed to trauma. The results indicated that parents did not have sufficient understanding or experience in how to deal with children who suffered from mental health problems. Additionally, parents often avoided talking with children about trauma, which further increased their anxiety. Likewise, Pfefferbaum et al. (2015) indicated that parental stress, maladaptive parental coping and lack of social support could be associated with child mental health problems. Throughout the literature, parental mental ill health thus emerges as a key risk factor.

2.6.4 Parental mental health

A large number of studies in the general population, clinical settings, high risk groups, and across cultures have demonstrated the link between mental health problems in parents and their children (Smith, 2004; Slone and Mann, 2006; Vostanis et al., 2006; Wilson et al., 2010; Smith et al., 2018). An early seminal study by Rutter and Brown (1966) asserted that the direct effects of maternal ill mental health could include neglect, hostility and abuse. Smith (2004) found that children of mothers suffering from depression had a greater tendency towards disrupted relationships, delayed development, and emotional and

behavioural problems from an early age. He attributed their findings to a combination of genetic predisposition, environmental influences, and the interaction between inherent and environmental factors.

It is noteworthy that parental mental health is one of the more highly represented areas of research into the role of parental factors in refugee populations. Previous findings indicate that children may face relatively little risk from milder violence when mothers have good mental health, although this risk increases when children are exposed to more severe violence and/or their mothers' mental health has been adversely affected (Spell et al., 2008; Weijers et al., 2018). In a similar manner to the generic literature, a number of refugee studies found parental mental health problems predicted different mental health problems in their children, most notably PTSD (Smith and Kudler, 1989; Rousseau et al., 1998; Wilson et al., 2010; Smith et al., 2018).

As proposed by Smith (2004), a body of research has since emerged to attribute a proportion of this impact to hereditary factors (National Institute of Health, 2018). Hoexter et al. (2012) studied dopamine-transporting genes in two groups of participants who had experienced traumatic events, with the first group being diagnosed with PTSD and the second group not fulfilling criteria for this diagnosis. The researchers found that higher levels of the target genes were present in the first group, hence indicating a genetic component in the development of PTSD after exposure to trauma. A genetic influence on the development of anxiety and depression has also been explored in previous studies. However, further research is needed to better understand the genetic vulnerability of refugee children developing these conditions.

Several studies explored the specific types of mental health problems in refugee parents and their children in more detail. A Canadian study found a correlation between depression in parents and a range of emotional problems in their offspring (Rousseau,

Drapeau, and Corin, 1998). Comparable results were generated by Smith (2001), who explored the effects of trauma on Bosnian children and mothers, concluding that both mothers and children had high levels of PTSD and, to a lesser degree, anxiety and depressive symptoms. In a study following a Scud missile attack in Israel, Wolmer et al. (2000) found a significant association between parents' and children's PTSD symptoms. As discussed in the previous section, this association was compounded by the absence of nurturing parenting and support (Thabet et al., 2009). For this reason, parental ill mental health can largely explain the development of behavioural, rather than emotional problems (Eruyar et al, 2018).

Despite this large body of evidence on the significance of the association between parental and child mental health, this finding has not been universally replicated (Harkness, 1991). For example, Davidson et al. (1989) studied 108 parents who had been exposed to war trauma and suffered from PTSD but were unable to establish an association with their children's well-being. The authors attributed this unusual finding to their use of a family history method, which was considered insensitive to diagnosis, instead of directly interviewing the participating families.

It is recognised that the association between the mental health status of parents and children is complex because of different mechanisms involved, especially when dealing with refugee populations who may have encountered different types of trauma. It is, for example, well established that refugee parents and children may have a detrimental impact on each other in the aftermath of trauma, with each having to process the experiences they have encountered whilst still continuing to interact as a family unit. This hypothesis was explored by Scheeringa and Zeanah (2001), who proposed three mechanisms for the manifestation of PTSD symptoms. Traumatized parents often become emotionally unavailable to their children because the children's symptoms trigger their own experiences

of trauma. Such traumatized parents may also be so fearful of their children experiencing further trauma that they limit their growth by being controlling or over-protective. Finally, children's trauma can resurface due to their parents unintentionally, albeit excessively, questioning them about their previous exposure. According to this model, children can develop mental health problems as a result of the negative impact that trauma exposure and parental ill mental health can have on parenting capacity, which results in reduced emotional support and boundaries to the child. All these processes are compounded by community-related factors both during and after the displacement or migration period.

2.7 Community factors

Community constitutes the third level of the ecological systems theory. A significant amount of research has been dedicated to investigating the role of communities on children who have experienced conflict (Khawaja et al., 2008; Butcher et al., 2015). The factors involved include socioeconomic disadvantage and unemployment, poor housing and overcrowding, unsafe neighbourhoods, loss of peer relationships and networks, social exclusion and discrimination, and lack of school attainment. These factors are often interlinked, and are discussed below in more detail, particularly where evidence is available for refugee children.

2.7.1 Socioeconomic status

Both parents and children are affected by the financial hardships experienced after being displaced from their homes due to war and subsequent displacement (Bonanno et al., 2007). Simich et al. (2006) highlighted the difficulties that refugees were forced to contend with, having to abandon their homes and belongings, as well as lose their incomes and livelihoods. Further challenges that refugees face include language and cultural barriers,

lack of employment opportunities, and transferability of skills. Porter and Haslam (2005) argued that households which enjoyed a higher income in their home countries might be more vulnerable to the development of mental ill health than lower-income refugee families due to the additional shock of adjusting to a new financial situation and standards of living.

Several mechanisms have been put forward to explain the association between income reduction and susceptibility to mental health problems (Reiss, 2013). A common process is through increasing parental stress, which in turn diminishes parenting capacity (Heptinstall et al., 2004). Thabet et al. (2011) highlighted the added strain and responsibility placed on younger refugees when they are forced to financially support their families by working illegally. These vulnerabilities were prevalent among displaced teenagers in the Democratic Republic of the Congo, who also experienced food shortages, malnutrition and inadequate healthcare, all of which acted as additional stressors (Mels et al., 2010). Malnutrition is a common and enduring consequence following conflict. Likewise, in Croatia, Grguric and Hirsl-Hecej (1993) found that 33% of children presented with symptoms of nutritional deficiency, which increased to 50% if they had been displaced for longer than six months.

Leshem et al. (2016) established that families in poor socioeconomic situations were not more prone to developing mental health problems when in isolation, but rather in relation to risk factors such as overcrowding, unemployment and parental mental illness. Financial security may also lead to increased arguments between parents, which has a well-evidenced negative influence on the child's well-being (Bokszczanin, 2008; Comer et al., 2010). Since financial resources are vital in order to overcome the difficulties encountered after a catastrophe, those families and children that are well positioned in this regard are thus better equipped to do so. This was demonstrated by Bøe et al. (2012), who found that children's mental states were strongly linked to their families' access to financial resources.

This protective function can be enhanced by parents' employability, which is partly related to their previous education status (Bøe et al., 2012; Reiss, 2013).

2.7.2 Unsafe neighbourhoods and adjustment barriers

A number of studies have established the correlations between unsafe neighbourhoods and community violence with offending behaviours and mental health problems among children, particularly in teenagers (Meltzer et al., 2007). Butcher et al. (2015) found that neighbourhoods characterized by high levels of exposure to violence were significantly correlated with youth experiencing symptoms of post-traumatic stress. These symptoms were shown to moderate the impact of exposure to violence on social relationships, i.e., the more traumatized youths were more likely to have peer and social adjustment difficulties, which led to accentuation of their offending behaviours. The connection between experiencing neighbourhood violence, depression or post-traumatic stress disorder (PTSD) and social support were also investigated by Paxton et al. (2004) among male African-American adolescents from low-income inner-city families. This study established that both depression and PTSD were predicted by the experience of community violence. The associated body of evidence was considered in a review by Stark and Landis (2016), who found that exposure to community violence was significantly associated with a range of mental health problems, thus demonstrating similar mechanisms with war conflict. The additional factor for displaced and refugee children is that they often live, whether temporarily or permanently, in poor and unsafe neighbourhoods, which thus compounds their vulnerability.

2.7.3 Social networks

Social networks include communities, groups or individuals that serve as a channel for social support (Hupcey 1998). A social network comprises two important elements, namely environmental factors such as family, neighbourhood and school safety, and available methods of support such as building friendships with their peers. While the size of one's social network might appear to be an important consideration, Sarason et al. (1990) argued that there is little evidence to suggest that a wider network signifies greater opportunities for receiving quality support. Relatives, peers, neighbours and educators have all been acknowledged as crucial foundations to social networks. In an important study with young Sudanese refugees, Khawaja et al. (2008) used comparable strategies throughout the three migration stages. During transit and post-migration, social networks were found to help these young people to feel that they belonged to a community, and to improve their access to housing and other material needs. In addition to the social support provided by communities in addition to that provided by families, this finding indicates the protection that even temporary social support can offer against the harmful effects of persecution and violence that refugees typically face.

Similar to studies with adults, Cohen and Willis (1985) found that mental health problems were more prevalent amongst children who had restricted access to social networks. Furthermore, one study, informed by ecological theory, involved 303 Palestinian children aged between 10-13 years old (Diab et al., 2018). Its findings revealed an association between child mental health problems and low-quality family and peer relationships. The disruption or collapse of social networks is, therefore, often associated with other risk factors that have already been discussed such as socioeconomic disadvantage, family conflict and impaired parenting (Bonanno et al., 2010).

Likewise, Fabricius et al. (2012) argued that a lack of social networks increases the possibility of family destabilization in the form of parental break-up, and hence adversely impacts children's mental well-being. Such a scenario is particularly likely among refugee families attempting to adapt to life after a catastrophic event and their subsequent displacement. In addition, Farhood et al. (1993) found that a decrease in social networking opportunities was a stronger predictor of adolescent depression than experiencing war conflict. Thus, when families and children manage to either sustain previous social networks or build new ones in their host community or country, these can mitigate the effects of trauma on children (Tol et al., 2013).

2.7.4 Peer relationships

Peers exert positive influences on optimal growth, in particular during adolescence. This protective function can have long-term and enduring effects by equipping young people with the ability to form and sustain relationships during adulthood (Witvliet et al., 2010). Ojanen et al. (2010) highlighted the important role friends play in a child's social development. Friendships provide support in managing various stress-provoking situations and, once established, this protective function can continue throughout the life cycle. In contrast, the absence of available and trustworthy friendships often has negative consequences. Therefore, 'friendship' is a complex concept in that it not only represents a physical presence but also incorporates emotional, social and coping components that can all strengthen a child's resilience when faced with challenges.

MacKinnon-Lewis et al. (1999) and Troop-Gordon and Ladd (2005) determined that a child's prospective peer connections are largely influenced by their previous peer experiences. Peers may be viewed negatively, as harsh, untrustworthy and malicious, or positively, as in providing encouragement, integrity and approachability. Consequently, a

child's wider social interactions and outlook are shaped by their peer relationships. Rejection by the peer group can be influenced by a child's negative self-perception and of their own capacity to form friendships. Quiggle et al. (1992) proposed that such perceptions were influenced by both the child's temperament and their previous life experiences, such as family rejection.

Nevertheless, the evidence relating to the role of peer relationships in relation to war and other trauma exposure is not conclusive. Shahar et al. (2016) did not find these factors to exert a similar mitigation of trauma as that established for family support. Instead, access to friends has been shown to have an additional influence on children's adjustment in the face of adversity (Almqvist et al., 1990; Du Bois et al., 2002). Other studies have, however, found a protective effect associated with peer support in its own right from developing PTSD and depression (Berthold, 2000). An interesting study was conducted in Denmark with refugee children from Middle Eastern countries. The findings indicated that refugee children who had established friendships with Danish peers had better mental well-being than those with fewer or no indigenous friends (Montgomery, 2008). This finding could indicate better integration in the host society. Overall, these complex mechanisms can also be understood for war-exposed children within the socioecological theory, i.e., in conjunction with other protective factors such as schooling where peer relationships predominantly take place (integration), rather than in isolation. In the following section, school attainment and other school-related factors are thus discussed in more detail.

2.7 Summary

War conflict has a significant detrimental and potentially long-lasting effects on children's mental health, and a number of factors increase children's vulnerability to developing mental health problems. This evidence notwithstanding, it has also been found

that many children subjected to such experiences do not go on to exhibit psychopathology. This suggests that protective factors also play a role in moderating the adverse impact of experiencing and witnessing brutality and the adversities subsequent to displacement. A number of such protective factors have been established in the literature, at the individual, family and community levels. The increasing influence of the socioecological systems theory indicates the importance of examining the role of these factors together, rather than in isolation, as they are often dynamically linked.

As already discussed in this chapter, a number of studies have previously investigated the relationships between family or community support and psychosocial functioning, though with limited research into the role of peer relationships. Overall, most studies examined one or more risk or protective factors, but not all domains (individual, family and peer level) in conjunction with each other. In order to better understand the consequences of armed conflict for children, as well as potential vulnerabilities and mitigation of such consequences, the social ecological framework can be particularly illuminating.

The vast majority of evidence is based on children seeking asylum or having been granted refugee status in other countries, but with limited research into internally displaced children who may potentially have different needs when sharing certain sociocultural characteristics with their host communities. The rationale behind this study was, therefore, to address these two gaps in the literature by exploring the concurrent role of individual, family and community factors in moderating internally displaced children's and parents' exposure to trauma.

To the best of the researcher's awareness, there are no studies to date that have examined the effects of war and exposure traumatic events on children's mental health and

the role of protective factors in moderating these effects in the context of Libya. The findings will hopefully inform the development of appropriate interventions, services and policy as tailored to these children's and families' mental health needs. Therefore, this study focused on internally displaced children and the role of multi-level protective factors, particularly when simultaneously considering both individual and environmental factors as proposed by socioecological theory.

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Chapter 3

Methodology

3.1 Introduction

This chapter is structured as follows. The research aims, hypotheses, the underpinning paradigm, sampling framework, instruments, research and ethics procedures, and statistical analysis are described and justified below.

3.2 Research aims and hypotheses

The aims of this study are to investigate:

a) The association between exposure to civil war trauma and mental health problems among Libyan children and their parents.

b) The role of coping strategies, perceived family and peer support (three levels of the ecological systems framework) in moderating the association between civil war trauma and parental mental health problems.

c) The role of coping strategies, perceived family and peer support in moderating the association between civil war trauma and child mental health problems.

d) The contribution of parental factors to the previous model of moderators of child mental health problems.

These research aims led to the formulation of three research hypotheses:

1. Exposure to civil war-related traumatic events is associated with a higher severity of mental health symptoms among parents and their children.

2. Both these associations are moderated by individual adaptive problem-solving coping strategies, and perceived family and peer support.

3. Parental factors make an additional contribution to the child mental health model.

3.3 Research paradigm

The research paradigm refers to a set of fundamental principles and perspectives that inform the proposed study by representing the philosophical underpinnings of the field. Therefore, as stated by Jonker and Pennink (2010), the research paradigm contributes a thinking model that influences the research. Phenomena are thus investigated through theoretically informed assumptions and perspectives (Guba and Lincoln, 1994). These perspectives have a direct influence on the knowledge sought by the research, as well as on how researchers interpret their findings (Morgan, 2007).

Tashakkori and Teddlie (2004) suggested that post-positivist and positivist research focus on quantitative data and objective interpretations and statistical/numerical measurements in order to produce reliable and generalizable findings that allow us to gain scientific insight into worldly phenomena. The present study adopts such a positivist paradigm to explore the role of factors that can protect children from the adverse impacts of civil war in Libya.

3.4 Research design

The present study adopts a quantitative cross-sectional design.

3.5. Sample size

The desired effect must be contemplated when calculating the required sample size in order to detect outcomes with a relatively strong confidence in their generalizability. Kelley and Preacher (2012) defined ‘effect size’ as the measure of the ‘power’ of an occurrence. While it may appear that the population size is the main factor in establishing a sample size, Hill (1998) asserts that a truly acceptable methodology for determining an appropriate sample size is still elusive.

To negate disproportionate and arbitrary effects, large samples are necessary (Isaac and Michael, 1971). This is due to the fact that a number of variables which could be randomly interrelated need to be considered, and their confounding effect should be minimized through the creation of sub-samples within the total collected sample. This allows these variables to be placed into new groups for further within- and between-group analyses; otherwise, the risk of overlooking or altering disparities occurs when there is a multitude of irregularities and individualities within a target population.

Krejcie and Morgan (1970) state that Table 3.1 below should be viewed as a template to eliciting the opinions of 650 people. A sample size of N = 242 would be necessary in this particular example. The table is valid for populations of fixed sizes, and can, therefore, be used to establish the sample size required to analyse the total 400 displaced Libyans across the two cities. In this case, according to the table, 196 participants would be required to attain sufficient power (Krejcie and Morgan, 1970).

Table 3. 1 Required sample size, given a finite population, where N = population size and S = sample size (Krejcie and Morgan, 1970)

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

To determine the sample size for a study where *m* is the quantity of independent variables, the following equation has been suggested by Green (1991): $N > 50 + 8m$. Thus, for a sample with seven independent variables, according to Green's (1991) equation, 106 participants are required: $N > 50+8(7) = 106$. It has also been suggested that 5-15 participants per independent variable would be required for a regression analysis model

(Clark-Carter, 1997). Therefore, a minimum of 35 and a maximum of 105 participants would be needed for the study, with 105 being chosen for regression analysis purposes.

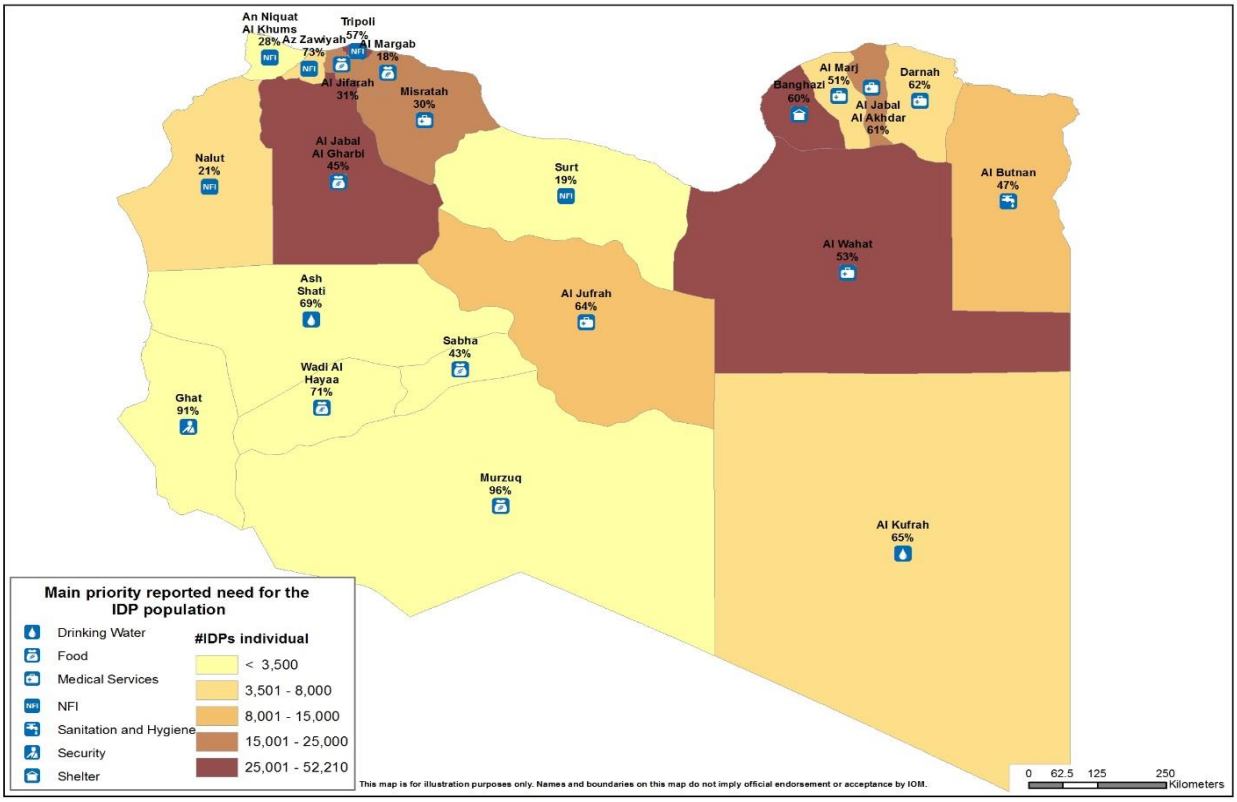
Taking all the above theories and evidence into consideration, it was decided that the number of participants required to provide a suitable sample in the context of this research would be 100 children and 100 of their parents, or 200 participants in tool, to ensure oversampling for the largest of the above estimates.

The sample thus consisted of 100 children who attended schools during periods of war in Benghazi (2016) and their families who had escaped to the neighbouring cities of Al-Marj and Al-Bayda. Furthermore, children's ages ranged between 9 and 15 years old. Of those, 50% children were female and 50% male. In terms of measures, children and parents completed five questionnaires each on the same constructs. Three of these (i.e., measuring war trauma, coping strategies and social supports) were identified in the literature as adaptations of the same core instruments. A number of factors were taken into consideration in the selection of measures such as their psychometric properties, cross-cultural application (especially in Arab countries), length, and design so as not to cause distress to participants.

3.5.1 Sample

The sample consisted of 100 children and 100 of their parents who had experienced civil war in Libya. They were selected from two cities, i.e., from among those who had fled from Benghazi to Al-Bayda and Al-Marj. Al-Bayda, also called Al Jabal and Al Akhdar, is located 200 km east of Benghazi and has a population of around 300,000 people. Al-Marj is located 100 km east of Benghazi, with a population of 200,000 people (Figure 3.1).

Figure 3. 1 Displaced Libyan population



Source: International Organization for Migration, (2017)

There are 35 primary schools in Al-Marj and 45 in Al-Bayda. The number of internally displaced children within each school, depending on the location, varies between two and 20. The schools with the highest proportion of children displaced from the Benghazi area were approached, i.e., five schools in each city, or a total of ten schools. The participants were the first five boys and first five girls who were on the school register list. It is acknowledged that this was a non-randomized sampling framework, which may have introduced a degree of selection bias, for example, when families had more than one child who fulfilled the selection criteria, the second child was excluded from the study. This approach was selected in order to ascertain equal numbers of each gender as participants

in this study, as gender was considered an important variable from the literature on the impact of war trauma on children and their emergent psychopathology (Seema, 2018).

Children were aged between 9 and 15 years old, with a mean age=12.05 and SD=1.708 SD. Furthermore, boys had a mean age of 12.02 and SD=1.513; and girls a mean age of 12.02 with SD=1.340. Although this is a relatively wide age range, the researcher was interested in including both older children and adolescents in order to investigate potentially different mechanisms. Previous studies in this field also included a similarly wide age range, such as in Louisiana by Banks and Weems (2014), with a sample aged between 7-18 years old, Khamis (2015) in the Gaza Strip with an age range of 9-16 years old, and Soysa and Azar (2016) in Sri Lanka with children aged between 9-16 years old. The rationale for including children of at least nine years old was for the members of the sample to have sufficient cognitive capacity to complete the self-report questionnaire (Goldstein et al., 1997).

In total, 393 families whose children fulfilled the selection criteria were gradually approached through the head teachers until a sample of 100 children and 100 parents was reached (see Section 3.5.1 below). Of those, 116 parents provided written informed consent, 197 did not respond, and 80 refused to participate in this study. Subsequently, the researcher excluded a further 16 children and their parents because of insufficient data, such as when he found a blank sheet. Thus, the final number of participants were 100 displaced children and 100 their parents or primary caregivers. Of the participating parents or caregivers, 95 were mothers and five were aunts, as these children lived with their extended families. The reason of the majority of participants being females may have been because fathers were busy in providing for the families' the basic needs or still being involved in the conflict, or not engaging with the study as in other research. This recruitment limitation may have introduced a degree of bias in the findings.

3.6 Instruments

The research instruments were selected according to a number of criteria:

- Measure the constructs which are central to the research aims.
- Measure as similar a set of constructs as possible for parents and children.
- Have acceptable psychometric properties.
- Have previously been used, in as far as possible, in Arab populations.

Therefore, seven instruments were selected to investigate the research hypotheses (Table 3.2).

Table 3. 2: Research instruments

	Instrument	Completed by
1	12-item General Health Questionnaire (Goldberg and Williams, 1988) (Appendix J).	Parent
2	Impact of Events Scale-Revised (IES-R) (Weisss and Marmar, 1997) (Appendix I).	Parent
3	Strengths and Difficulties Questionnaire (SDQ) – (Goodman, 1997) (Appendix H).	Child
4	Children Impact of Events Scale (CRIES-8) (Horowitz et al., 1979) (Appendix G).	Child
5	Gaza Traumatic Event Checklist (Thabet and Thabet, 2016) (Appendix F).	Both
6	Perceived Social Support by Friends and Family (Procidano and Heller, 1983) (Appendix L).	Both
7	Children's Coping Strategies Checklist-Revised (CCSC-R1) (Ayers and Sandler, 1999) (Appendix K).	Both

All these instruments are described in detail below in terms of their development, subscales and items, scoring system, cut-off scores where available, validity and reliability, and whether they have previously been used in Arab countries.

3.6.1 Instruments completed by parents

3.6.1.1 12-item General Health Questionnaire (Goldberg and Williams, 1988)

The General Health Questionnaire was created by Goldberg (1970). Since its original development, it has been widely used as a measure of adult non-specific psychiatric morbidity in both epidemiological and clinical research. Initially, the questionnaire included 60 questions. Further shortened versions included 12, 20, 28 or 30 questions. This makes the GHQ more accessible and easier to use, as the shorter versions can be completed far more quickly than the original. Participants score their responses to each question on a Likert scale between 0 and 3, where 0 means 'less than usual' and 3 means 'much more than usual'. The 12-question version of the GHQ gives a maximum overall score of 36 and a has cut-off score of 11/12 (Martin and Newell, 2005). Furthermore, it includes four subscales related to common mental health problems (depression, anxiety, somatic and social dysfunction) (Toyabe et al., 2007; Ye, 2009).

Several studies have tested its validity against clinical interviews or other established instruments. For example, in order to investigate the association between the 12-item GHQ scores and scores on the Global Quality of Life Questionnaire, responses from 748 18-25 year-olds were compared. A significant negative correlation was established (r = -0.56, $p < 0.0001$), which indicated that respondents who felt distressed had reduced life satisfaction and quality of life (Montazeri et al, 2003). A study by Schmitz et al. (1999) found a correlation of 0.64 between the 12-item GHQ and the Symptom Checklist (SCL-90-R) in primary care patients, and concluded that both questionnaires were able to help identify patient symptoms. Other studies have investigated its reliability, mostly through Cronbach's α coefficient for internal consistency. Scores have usually been high, typically around 0.87, as estimated by Montazeri et al. (2003). In this study, the GHQ Cronbach's score in this study was 0.693. This has been translated into Arabic and has been

used in various Arab countries such as in the Gaza Strip and the United Arab Emirates (El-Rufaie and Daradkeh, 1996; Thabet et al., 2001; WHO, 2002).

3.6.1.2 Impact of Events Scale-Revised (IES-R - Weisss and Marmar, 1997)

The Impact of Events Scale was originally designed by Horowitz et al. (1979) to asses posttraumatic stress symptoms after exposure to trauma. This was revised by Weiss and Marmar, (1997) to include 22 items on a scale ranging from 0 to 4. In the IES-R, 0 means 'not at all' and 4 means 'extremely' (Appendix I). The questions fit into three subscales of PTSD symptoms: re-experiencing, avoidance or numbing, and hyperarousal. Scores range between 0–88, and a cut-off of 33 has been found to predict a likely diagnosis of PTSD (Creamer et al., 2003).

In terms of internal consistency, as a whole, the IES-R has received high scores in terms of Cronbach's α, for example as high as 0.96 in Christiansen and Marren (2012), which suggests that internal consistency is high. The internal consistency for each subscale has also been found to be high, for example α = 0.87-0.94 for re-experiencing, α = 0.84-0.87 for avoidance and α = 0.79-0.91 for hyperarousal (Weiss and Marmar, 1997; Creamer et al, 2003). The test-retest reliability is also high, with re-experiencing, avoidance and hyperarousal scoring r = 0.54-0.94, r = 0.51-0.89 and r = 0.59-0.92, respectively (Weiss and Marmar, 1997).

The IES-R has a high correlation with other PTSD instruments, thus supporting its validity, for example 0.84 with the PTSD Checklist-Civilian Version (Weathers et al, 1993; Creamer et al., 2003). Internal consistency in this comparative research was also high at α = 0.90. Furthermore, IES-R Cronbach's score in this study was 0.86. As with the other instruments selected in this study, the IES-R has previously been translated into Arabic. It

has been used in Syrian refugee camps in Southern Turkey, and with participants between 20-89 years old with Arabic-speaking participants in Western countries such as Australia (Davey et al., 2015).

3.6.2 Instruments completed by children

3.6.2.1 Strengths and Difficulties Questionnaire (SDQ – Goodman, 1997)

Goodman (1997) designed different versions of the SDQ, as one of the most widely used measures of child psychiatric morbidity, as reported by different informants. The self-report was developed for children and young people aged between 11 and 16 years old (see Appendix H). However, a number of studies have also shown that it can be used reliably with children as young as nine years old (Riso et al., 2010; Mieloo et al., 2012; Bøe et al, 2016).

Although the SDQ was not designed as a measure of specific mental health problems, Goodman (1997; 2001) included four subscales of common presentations (conduct, emotional, hyperactivity and peer problems) and one subscale of strengths (prosocial behaviours), each consisting of five items. Responses are scored on a scale from 0 to 2, where 0 means 'not true', 1 means 'somewhat true' and 2 means 'certainly true'. These scores are then summed for each subscale and a total difficulties score, up to a maximum score of 40. This score can then be placed within one of three category bands, indicating its potential clinical significance. A score of between 0-13 is defined as being within the normal range, 14-16 within the borderline range, and a score of 17-40 within the abnormal or clinical range, the latter indicating that the child would benefit from a mental health assessment with a view to receiving an intervention. These score categories were estimated from a large epidemiological study, according to which 80% of children would

fall into the normal range, and 10% into the borderline and abnormal ranges, respectively (Goodman, 1997; Riso et al., 2010). These categories are universal and are not dependent on age or gender.

A number of studies have supported the validity and reliability of the Strengths and Difficulties Questionnaire. An early study was based on the screening of 5 to 15 year-olds, 467 of whom lived in the community and 232 attended an out-patient psychiatric clinic (Goodman, 1999). A strong correlation of r = 0.74 was found in predicting a clinical diagnosis when compared with a standardized interview. In another early study by Goodman and Scott (1999), the SDQ was compared with the Child Behaviour Checklist (CBCL - Achenbach, 1991), which was most-frequently used rating scale at the time. This involved asking mothers of 132 4-7 year-olds to complete both the CBCL and the SDQ. Their total scores were strongly correlated and were both sensitive in terms of predicting which children had psychiatric patients. The SDQ had the additional advantage of brevity compared to the CBCL's 113 items, was thus cost-effective, and was gradually established as the most commonly utilized instrument. This was aided by its cross-cultural application and validation. Furthermore, the SDQ Cronbach's score in this study was 0.772. This has been translated into Arabic and used in countries such as Yemen, Gaza, and Turkey with Syrian refugee children (Thabet et al, 2000; Thabet et al, 2008; Alsayed and Wildes, 2018; Eruyar et al., 2018). Different language versions of the SDQ, including Arabic, can be found on its website: http://www.sdqinfo.com.

3.6.2.2 Children's Impact of Events Scale CRIES-8 (Horowitz et al., 1979)

As already discussed, Horowitz et al. (1979) initially created the Impact of Events Scale (IES) to measure PTSD symptoms in adults. As the IES was not designed with

children in mind an adapted version, CRIES, was subsequently developed for children facing similar traumatic events, but with their developmental differences taken into consideration. CRIES consisted of 15 questions which were split into the dimensions of intrusion, avoidance and emotional numbing. This was used in a variety of research with children aged eight years old and older. Despite its value as a measure of PTSD severity and outcome, for example with young survivors of a shipwreck (Yule et al, 1994) and children traumatized by the Croatian war (Dyregrov et al, 1996), the fact that it was possible for children to misunderstand some its questions has been emphasized. As a result, a structure similar to the IES was created and eight revised questions were posed to participants instead, thus leading to the development of the CRIES-8 (Horowitz et al, 1979; Perrin et al, 2005 - Appendix G).

Its reliability has been established by many studies across different cultures, all with essentially consistent findings. A very high Cronbach's α score of 0.98 in terms of the total internal consistency, 0.78 for intrusion, and 0.82 for avoidance were established. Deeba et al. (2014) evaluated its psychometric properties among children aged between 9-17 years old who had been exposed to trauma due to natural disasters in Bangladesh, in which a Cronbach's α of 0.74 for internal consistency was established. Furthermore, CRIES the Cronbach's score in this study was 0.674. This has been translated into various languages, including Arabic (Smith, 2001; Thabet et al., 2008; Davey et al., 2015). Additionally, it was recently used with Syrian refugee children resident in Turkey (Eruyar et al., 2018).

3.6.3 Instruments completed by both child and parent

3.6.3.1 Gaza Traumatic Event Checklist (Thabet and Thabet, 2016)

Several questionnaires have been reported in the literature that can be used to assess the impact of war trauma on both parents and their children. Unfortunately, none has been

used consistently, as researchers have developed new measures for different conflict situations. These tools include the 25-item and 45-item assessments compiled by Macksoud (1988 and 1992, respectively) on childhood war trauma, and the 14-item assessment by Husain and Holcomb (1994) on war experiences. Nevertheless, the questionnaire by Husain and Holcomb has yet to be made public, and all other questionnaires lack any satisfactory psychometric evaluation.

As a result, none of the above were used for the purposes of this research, with the 23-item Gaza War Traumatic Event Checklist being opted for instead (see Appendix F). The questions were completed by both children and their parents (Thabet et al., 2008) and covered three domains which encompassed situations characteristic of the war in Gaza, which share similarities with the context of the Libyan civil war. With the exception of question 23, we deleted the phosphorus bomb item, because it was not used in the Libyan war (i.e. the item 'exposure to burns by bombs and phosphorous bombs' was revised to 'exposure to burn by bombs'). The first domain relates to hearing about war-related traumatic events (questions 1-4 refer to hearing about the death of friends or relatives). The second domain concerns first-hand accounts of war trauma (questions 5-13 relate to first-hand accounts of people being killed or buildings being destroyed). The third and final domain deals with personal experiences (questions 14–23 relate to any direct experiences of aggression, beatings, brutality and physical force being used during wartime). 'Yes' (1) or 'No' (0) responses are provided for each question, and a total score is calculated. According to Thabet and Thabet (2016), and using Cronbach's alpha, the dependability of the checklist was determined to be 0.92 with a split half of 0.86. Furthermore, the Gaza War Traumatic Event Checklist Cronbach's scores in this study were 0.798 for parents and 0.756 for children. The total score has been shown to have a dose-effect relationship with PTSD symptoms by several studies (e.g., Thabet et al., 2000; Thabet et al, 2004).

3.6.3.2 Perceived Social Support from Friends and Family (Procidano and Heller, 1983).

The Perceived Social Support from Friends and Family includes the Friends (SSfr) and Family subscales (SSfa), each consisting of 20 items about feelings and experiences of receiving different types of support from peers and family members (see Appendix L). This has been used to measure family and social relationships. Each item has three possible responses ('Yes', 'No', and 'I don't know'), with 'Yes' being assigned 1 point, indicating support; 'No' or 0 points, indicating no support; and '99' indicating a missing answer. Thus, each scale has a range from 0 to 20, with higher scores indicating greater perceived support. This instrument is generally used with children, adolescents and young adults (La Greca et al., 1995; Greco, 2004). The Perceived Social Support from Friends and Family has been used in different cultures (e.g., in English, Chinese and Taiwanese populations), and consistently shows high reliability and internal consistency (Liu, 1996). Internal consistency has been estimated to lie in the range 0.88-91 for the family and 0.84-0.90 for the friends subscales. The reliability alpha has been found to lie between 0.77-0.86 for the family, and between 0.75-0.81 for the friends subscale (Procidano and Heller, 1983). Furthermore, the Cronbach's scores in this study were: SSfa 0.644 for parents and 0.817 for children; and SSfr 0.725 for parents and 0.830 for children. This has been translated and used in the Arabic language in Jordan (Hamdan-Mansour and Dawani, 2008).

3.6.3.3 Coping Strategies Checklist-Revised

The self-report Children's Coping Strategies Checklist-Revised (CCSC-R1) (Ayers and Sandler, 1999) measures the coping strategies used by both children and adults. It covers 54 items and four subscales of problem-solving, distraction, avoidance and support-seeking strategies. All items begin with "When you had problems in the past month" (e.g.,

"You reminded yourself that you knew what to do", "You tried to stay away from the problem", "You watched TV.", "You imagined how you would like things to be", "You let other people know you felt"), in which children choose between one of four responses that best describes their reactions to everyday problems (i.e., Never = 1, Sometimes = 2, Often = 3, Always = 4). Responses for each item are averaged to form subscale scores, which are then averaged again to form scale scores, with higher scores indicating more frequent use of the particular associated coping strategy (see Appendix K).

Furthermore, CCSC-R1 is a revised version of the original CCSC and which includes the addition of nine items, as hypothesized to fall under two new subscales (Ayers et al., 1996). Its reliability and validity are highly satisfactory. The validity of problem-solving has been established as 0.80, avoidance as 0.64, distraction as 0.79 and support-seeking strategies as 0.89 for the associated Cronbach's alpha (Ayers and Sandler, 1999). This has been translated and used in the Arabic language with 300 children who were suffering thalassemia in Egypt. The validity and reliability of CCSC-R1 have been assessed and found to be excellent. For example, the reliability of the Arabic version was r = 0.84. (Zaghloal, 2011; Ahmed et al., 2018). Furthermore, the Cronbach's scores in this study were: problem-solving 0.941 for parents and 0.711 for children, avoidance as 0.717 for parents and 0.67 for children, distraction 0.675 for parents and 0.87 for children, and support-seeking strategies as 0.761 for parents and 0.824 for children.

3.7 Research procedure

Official permission was initially granted by the Libyan Ministry of Higher Education and Scientific Research to approach and collect data from Libyan schools located in two cities, Al-Bayda and Al-Marj (see Appendix A). Students (pupils) of Libyan primary schools are usually aged between 9 and 15 years old. The headteachers of these

primary schools were given information letters and consent forms, which were distributed to all families who fulfilled the selection criteria (see Appendices C and D), i.e., children aged 9-15 years old when attending the school between 1/11/2016 to 30/11/2016, and who had moved from the Benghazi area during the previous five years since the onset of war in 2011. After parents had provided written informed consent and children had given their verbal assent, families were approached to determine convenient times to complete the questionnaires. These were not arranged to occur during school time in order to respect the anonymity and confidentiality of the participants with regards to other children in the school.

3.8 Ethics issues

It is vitally important that the ethical implications of a study are considered for both adults and children. Due to an increase in research into and interest in human rights, research has become more common in developing countries, meaning that research ethics is being increasingly taken into consideration in this socio-cultural context (Hoagwood et al., 2014), thus leading researchers to further think through the ethical implications of research with adults and, particularly, young participants (Hyder et al., 2004; Bredenoord et al., 2017). In terms of research ethics, there are important implications for studies involving children. Punch (2002) suggested that this is because adults are autonomous beings who have the cognitive capacity to make their own choices, meaning that they are able to make informed decisions about whether they want to be involved in research and how they would like to respond to it. It is argued that this is not the case for children, as they may lack the ability to give informed consent despite being individuals with their own thoughts and feelings. Because of these differences, regulations are increasingly being put in place to ensure that children are protected from harm while still respecting their right to

a voice (Keddie, 2000). Research should always be fully explained to both adults and children in ways that they can understand and, if research involves children who are too young to give their informed consent, it should instead be formally obtained from their parents or guardians, although it is considered good practice to also give the child the opportunity to decline to take part by describing what the study involves in developmentally appropriate words (Keddie, 2000; Christensen and Prout, 2002).

Such concerns should be counterbalanced with the increasing awareness that children's voices should be heard and respected so that they influence the services they receive, hence the importance of involving them in research. The right to make informed choices, and the principles of non-interference, respect, dignity and autonomy among all children were proposed by the United Nations Convention on the Rights of the Child (UNCRC, 1989), which in 1991 received UK ratification. As Collins (2017) explained, given the shortcomings in the reasoning and defencelessness of children, these rights are especially crucial, while successful fulfilment of such children's requirements is incumbent upon all healthcare professionals.

In addition, displaced families and their children represent particularly defenceless and at-risk groups, for whom ethical concerns must be especially marked. Informed consent is one significant requirement of researchers in this regard. Various forms of background information, such as the researcher's details, the study context and applications of the research, should be provided to the children (see Appendix E), so that their choice regarding their engagement in the research process can be safeguarded through truly informed consent. These issues were highlighted in a study with Lebanese-based Syrian refugee children and their relatives as undertaken by Sim et al. (2018). How family dynamics and parenting were affected by displacement and conflict were investigated through a qualitative interview method, focussing on refugee minors and their parents from

Syria. The researchers emphasized the fact that help from different institutions would remain unaffected should they engage with their study and that participants' engagement was entirely voluntary.

Additional vulnerabilities face people with mental health problems, especially children. Accordingly, children's susceptibility to mental health issues was a further ethical issue in this research, meaning that it was imperative that children's wellbeing was upheld throughout this investigation. In this regard, irrespective of whether signed informed consent had been given by the children's parents, it was explained to each child that they could end their involvement in the study at any point, and that their involvement was entirely voluntary. So that the children could be assisted in filling in the questionnaire, any of their queries could be responded to and, importantly, their anxiety, anguish or any issues could be resolved, the data collection process in the classroom involved an investigator with experience in the field of psychology, as well as a psychologist.

In order to follow the British Psychological Society's (BPS) guidelines (2018), this research ensured that before providing consent, all potential participants were provided with written information that detailed the nature of the study. This research was not expected to cause participants distress or significant harm, and the information explained that they had the right to withdraw from the study at any time without consequence, such as missing out on any existing support being currently offered to the child or family. It was explained that, if needed, the researcher could help them to access any clinical or other appropriate services.

Approval letters were received from three Libyan government departments, which granted permission to approach the schools and families and invite them to participate (see Appendix A). The study also received approval from the Psychology Research Ethics

Committee of the University of Leicester. The primary investigator is of Libyan origin, and was present throughout the data collection to explain and clarify questions, engage the schools and families, and assist families in receiving further help if required (see Appendix B).

No real names were used, and all data collected were kept in a secure place at the George Davies Centre, University of Leicester. The data was subsequently coded and saved on a password-protected computer. No personal information was available to anyone other than the researcher, who coded all data and erased any identification details. No identifiable information will be included in any associated documents subsequently disseminated. Although written informed consent was sought from the parents (see Appendix D), an information letter was also given to the children in a developmentally appropriate language (see Appendix E). The researcher was present throughout the data collection to answer any questions or to assist if a child became upset. In such instances, they would be encouraged not to complete the questionnaire and, if required, would be directed to an appropriate local school pastoral or child mental health service.

3.9 Statistical analysis

The Statistical Package for Social Sciences, SPSS, version 24 was used to enter and analyse the research data, initially through descriptive, comparative and correlational exploratory analyses. Depending on the distribution of the data (normal or abnormal), parametric or non-parametric tests were used, respectively. These were followed by a series of hypothesis-testing multiple regression models. The research hypotheses were tested in two ways. Firstly, with PTSD symptoms (total IES-R scores for parents and total CRIES scores for children) followed by general mental health symptoms (total GHQ scores for

parents and total SDQ scores for children) as the dependent variables. The independent variables were war trauma exposure, coping strategies (problem solving, seeking support, avoidance and distractive coping), and perceived family and peer support. At this stage, all questionnaires were scored according to the existing literature, even if their psychometric properties were weak for this cultural group's evidence (Aroian et al., 2010). The respective subscale scores were then entered as dependent variables in subsequent models.

Each regression model followed a stepwise approach. Step 1 involved entering sociodemographic data to determine which variables were significant. Only significant sociodemographic variables were kept in Step 2, when war trauma exposure scores were entered into the model. The significant variables thus established were also entered in Step 3, alongside social supports and coping strategy scores. Where appropriate, a new variable on the interaction between already established significant variables was entered in Step 4. This process allowed for the overall research hypotheses to be accepted or rejected.

The final part of the analytic process involved a factor analysis of the selected questionnaires. This was not hypothesis-testing but rather was exploratory in nature. Although displaced children have similar characteristics to children exposed to other types of war-related and political conflict, the participants had different social, cultural and ethnic backgrounds. This means that it is possible that constructs such as mental health and coping strategies may be perceived, and thus measured differently, from those in the original literature (Stevanovic et al., 2017; Yildirim and Belen, 2018). For this reason, the selected questionnaires were subjected to exploratory factor analysis (EFA) of their subscales (Hayton et al., 2004). Where different factors emerged for subscales scores, the hypothesis-testing analyses were repeated for these 'new' subscales.

Chapter 4

The role of coping strategies, family and peer support in predicting parental mental health problems

4.1 Introduction

This chapter presents the findings on the predictors of parental mental health problems according to research hypotheses 1 and 2. Firstly, that exposure to war traumatic events in the Libya civil war are associated with a higher severity of post-traumatic stress disorder symptoms, as measured by the Impact of Event Scale - Revised (IES-R), and of general mental health problems, as measured by the General Health Questionnaire (GHQ). Secondly, that parental coping strategies (problem-solving, distractive, avoidance and support-seeking strategies) and family and social networks (family and friends) made an independent contribution to this association. The aim of this chapter is to understand which factors within the socioecological systems framework are associated with mental health problems in the parents before considering how these factors, in conjunction with parental mental health, operate in the development of mental health problems among their children.

The chapter is structured according to three sections. Descriptive statistics include mean scores, standard deviations, skewness and kurtosis. However, this chapter does not include parental demographic variables (e.g. family income, age, gender), because this research seeks to investigate the effect of war trauma on displaced children, while parents are a complementary and contextual part of the study construction. These are followed by exploratory analyses on the correlations between key variables. Finally, two hypotheses-testing stepwise multiple linear regression models are presented, with total IES-R and total GHQ scores as the dependent variables, respectively.

4.2 Descriptive statistics

SPSS version 24 was used in this research. The missing data was less than 3% of the total collected across all questionnaires, and was thus replaced in total and subscale

scores (Anda et al., 1999). In this research, five questionnaires were used in relation to parental variables (war trauma, PTSD symptoms, general mental health problems, coping strategies, and support by family and friends). The descriptive statistics of these five variables are presented in Table 4.1. These include means, standard deviations, skewness and kurtosis of total questionnaire scores, with the exception of the coping strategies questionnaires where the subscales are presented throughout the analysis as reflecting more meaningful constructs. As the data was normally distributed, the Pearson correlation was used to test the strength of the relationships between parental vulnerability and mental health measures. As a rule, IES-R is not used to diagnose PTSD, but rather measure PTSD's symptoms (Palgi et al., 2009). Nevertheless, according to established cut-off scores, 33 parents (or 65%) were considered to have significant PTSD symptoms.

Table 4. 1 Descriptive statistics of parental scales

	N	Min	Max	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
War trauma	100	3	23	13.03	4.06	-.22	.241	.03	.478
GHQ	100	5	30	18.94	5.30	.09	.241	-.33	.478
IES_R	100	14	55	35.80	8.61	-.36	.241	-.24	.478
Friends' Support	95	3	17	9.31	3.389	.18	.241	-.65	.478
Family Support	97	5	17	11.30	2.68	-.26	.241	-.66	.478
Problem Solving	99	0	65	30.78	13.72	-.43	.241	-.45	.478
Distractive Coping	100	1	20	8.31	3.57	.32	.241	.19	.478
Avoidance Coping	100	0	21	7.95	4.49	.71	.241	.58	.478
Support Seeking	100	0	18	7.15	5.28	.52	.241	-.74	.478

4.2.1 Correlation matrix of parental vulnerability and mental health variables

The strength of the relationship between parental vulnerability and mental health variables was measured using the Pearson correlation (r), which can range between -1.0 (negative correlation) and +1.0 (positive correlation). Cohen (1998) suggested that a correlation coefficient of .10 is weak or small; a correlation coefficient of .30 is moderate; and a correlation coefficient of .50 or larger is strong or large. The correlation matrix is presented in Table 4.2. The results showed that the two mental health variables, the GHQ and IES-R scores, were significantly intercorrelated ($r = .825$, p-value $< .001$), which is consistent with the literature in terms of the high comorbidity that has been found between PTSD and other mental health problems in war-affected individuals (Dyregrov and Yule, 2006; Hizli et al., 2009; Slone and Mann, 2016).

Both GHQ and IES-R scores were positively correlated with war trauma exposure (GHQ: $r = .598$, p-value $< .001$; IES-R: $r = .877$, p-value $< .001$). In contrast, a significant negative correlation was found between GHQ and family support ($r = -.309$, p-value $< .001$), and support-seeking scores ($r = -.228$, p-value $< .001$). If the correlation (r) between two covariate variables is $\geq .95$, the data is likely to have a problematic collinearity. As correlations between vulnerability variables in this study were $< .70$, this was unlikely to be an issue in this instance.

Table 4. 2 Correlation matrix of parental vulnerability and mental health scores

		GHQ	IES-R	War exposure	Friends' support	Family support	Problem solving	Distractive	Avoidance	Seeking support
GHQ	Pearson Correlation	1	.528**	.598**	.109	-.309-**	-.108-	-.019-	-.172-	-.228-*
	Sig. (2-tailed)		.000	.000	.280	.002	.283	.850	.087	.023
	N		100	100	100	100	100	100	100	100
IES-R	Pearson Correlation		1	.877**	.105	-.184-	-.103-	-.011-	-.136-	-.165-
	Sig. (2-tailed)			.000	.298	.067	.310	.915	.178	.101
	N				100	100	100	100	100	100
War exposure	Pearson Correlation				.162	-.188-	-.114-	.016	-.167-	-.292-**
	Sig. (2-tailed)				.107	.061	.260	.877	.096	.003
	N				100	100	100	100	100	100
Friends' support	Pearson Correlation				1	-.044-	.078	-.005-	.047	-.030-
	Sig. (2-tailed)					.660	.442	.961	.640	.766
	N					100	100	100	100	100
Family support	Pearson Correlation					1	.045	.125	-.065-	-.027-
	Sig. (2-tailed)						.659	.217	.517	.788
	N						100	100	100	100
Problem solving	Pearson Correlation						1	-.006-	.025	.163
	Sig. (2-tailed)							.950	.807	.106
	N								100	100
Distractive	Pearson Correlation								-.056-	.094
	Sig. (2-tailed)								.580	.352
	N								100	100
Avoidance	Pearson Correlation									.050
	Sig. (2-tailed)									.621
	N									100
Seeking support	Pearson Correlation									1
	Sig. (2-tailed)									
	N									

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

4.3 Hypothesis–testing analyses

The IES-R and GHQ (dependent variables) were hypothesized to be affected by war trauma exposure. In addition, social supports (families and friends) and coping strategies were hypothesized to have an adjustment effect on these dependent variables, so they were entered into the model in different steps to explore whether, and indeed how, this association was affected by introducing family and friends' support, as well as different coping strategies, as co-variates.

Separate analyses were conducted with total IES-R and GHQ scores as the dependent variables. Each analysis started by entering the war trauma variable in step 1. Then, social supports and coping strategies were added in step 2, while retaining war trauma exposure if it had a significant association. An interaction with the war trauma variable was created for any variable showing significant effects. These interaction variables retained significant variables from step 2, and were included in the final model (step 3). A new interaction variable indicates that a third variable may have influenced the relationship between war trauma and protective factors with dependent variable (child mental health), in addition or instead of the influence of each of the two variables in this interaction. The conclusions as to whether to accept or reject the hypotheses were thus based on this final model. The regression assumptions (residuals' normality, residuals' homogeneity and independency among exploratory variables) were verified and found to be valid.

4.3.1 Total IES-R scores as the dependent variable

The results showed that total IES-R scores were significantly higher for parents with higher war trauma exposure (p-value < .001) in step 1 (see Table 4.3). In step 2, war trauma

exposure remained significant, and in addition IES-R scores were significantly predicted by lower support-seeking coping strategies (p-value < .001). In the final model, step 3, the interaction between war and lower support seeking had a significant effect on IES-R scores (p-value < .001). Both war trauma and lack of seeking support remained significant. The total variation in total IES-R scores, which was explained by the model, reached 77.9%. Furthermore, the study reported that 47% of 100 displaced parents scored above the cut-off score for a likely PTSD diagnosis.

Table 4. 3 Regression model with total IES-R scores as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R-square Of All steps
		B	Std. Error	Beta			
1	(Constant)	.287	.076		3.780	.000	.769
	War exposure	2.087	.116	.877	18.056	.000	
2	(Constant)	.699	.140		4.998	.000	
	War exposure	1.710	.136	.719	12.528	.000	.819
	Friends	-.058-	.077	-.034-	-.752-	.454	
	Family	.139	.138	.048	1.004	.318	
	Problem solving	-.054-	.031	-.080-	-1.718-	.089	
	Distractive	-.015-	.045	-.016-	-.338-	.736	
	Avoidance	-.015-	.048	-.014-	-.311-	.757	
	Seeking support	-.171-	.039	-.259-	-4.350-	.000	
3	Constant	.689	.098		7.050	.000	
	War exposure	1.664	.122	.699	13.635	.000	.814
	Seeking support	-.228-	.036	-.346-	-6.359-	.000	
	War exposure * Seeking support	-.812-	.176	-.200-	-4.606-	.174	

R squared =.814 F(ANOVA) = 174.526 p-value < .001

4.3.1.1 IES-R avoidance sub-scale scores as the dependent variable

When total IES-R scores were replaced by its subscales in respective regression analyses, avoidance scores were significantly higher among parents with higher war trauma exposure (p-value < .001), step 1, see Table 4.4. When adding social support and coping strategies in step 2, war trauma remained significant; in addition, avoidance scores were

significantly predicted by lower support-seeking strategies (p-value < .001). In the final model, step 3, the interaction between war and lower support-seeking had a significant effect on avoidance scores (p-value < .001). However, the interaction between war trauma and lower support seeking was not significant. The total variation in avoidance explained by the model reached 60.6%.

Table 4. 4 Regression model with IES-R avoidance subscale scores as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R-square Of All steps
		B	Std. Error	Beta			
1	(Constant)	.016	.238		.066	.947	.308
	War exposure	2.394	.362	.555	6.604	.000	
2	(Constant)	.865	.458		1.887	.062	.408
	War exposure	1.577	.447	.366	3.527	.001	
	Friends	.146	.253	.048	.579	.564	
	Family	-.021	.452	-.004	-.046	.963	
	Problem solving	-.006	.103	-.005	-.056	.955	
	Distractive	-.290	.147	-.164	-1.974	.051	
	Avoidance	.298	.157	.159	1.893	.061	
	Seeking support	-.375	.129	-.313	-2.913	.004	
3	Constant	.795	.368		2.161	.033	.367
	War exposure	1.619	.460	.375	3.518	.001	
	Seeking support	-.366	.124	-.306	-2.956	.004	
	War exposure * Seeking support	-.231	.575	-.034	-.402	.689	

R squared = .367 F(ANOVA) = 18.56 p-value < .001

4.3.1.2 IES-R Intrusion subscale scores as the dependent variable

Intrusion subscale scores were also significantly higher among parents with higher war trauma exposure (p-value < .001), step 1, see Table 4.5. On adding social support and coping strategies into model 2, war trauma remained significant and intrusion scores were also predicted by lower problem-solving strategies (p-value = .048). In the final model, step 3, the interaction between war exposure and lower problem-solving strategies had a significant effect on intrusion scores (p-value = .044). War trauma exposure and lower problem solving remained significant. The total variation in intrusion scores explained by the model reached 59.7%.

Table 4. 5 Regression model with IES-R intrusion subscale scores as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R-square Of All steps
		B	Std. Error	Beta			
1	(Constant)	.750	.177		4.244	.000	
	War exposure	1.700	.269	.538	6.316	.000	
2	(Constant)	1.390	.349		3.987	.000	.289
	War exposure	1.262	.340	.399	3.709	.000	
	Friends	-.119	.192	-.053	-.617	.539	
	Family	.028	.344	.007	.081	.936	
	Problem solving	-.157	.078	-.175	-2.005	.048	.329
	Distractive	.088	.112	.068	.790	.432	
	Avoidance	-.131	.120	-.095	-1.092	.278	
	Seeking support	-.158	.098	-.181	-1.619	.109	
3	Constant	.888	.226		3.937	.000	
	War exposure	1.756	.275	.556	6.372	.000	
	Problem solving	-.155	.076	-.172	-2.042	.044	.357
	War exposure * Problem solving	-1.005	.493	-.176	-2.039	.044	

R squared = .597 F(ANOVA) = 17.73 p-value < .001

4.3.1.3 IES-R Hyperarousal subscale scores as the dependent variable

Hyperarousal subscale scores were also significantly higher for parents with higher war trauma exposure (p-value < .001), step 1, see Table 4.6. No significant effects were observed by adding social support and coping strategies at step 2. Thus, no interaction terms needed to be introduced.

Table 4. 6 Regression model with IES-R hyperarousal subscale scores as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R-square Of All steps
		B	Std. Error	Beta			
1	(Constant)	.095	.191		.498	.620	.362
	War exposure	2.167	.291	.602	7.457	.000	
2	(Constant)	-.158	.386		-.408	.684	.362
	War exposure	2.291	.377	.636	6.075	.000	
	Friends	-.202	.213	-.079	-.947	.346	
	Family	.409	.382	.094	1.071	.287	
	Problem solving	.001	.087	.001	.010	.992	
	Distractive	.156	.124	.106	1.261	.211	
	Avoidance	-.212	.133	-.135	-1.597	.114	
	Seeking support	.021	.108	.021	.191	.849	

R squared = .396 F(ANOVA) = 8.61 p-value < .001

4.4 Total GHQ scores as the dependent variable

This analysis showed that total GHQ scores were significantly higher for parents with higher war trauma exposure (p-value < .001), step 1, see Table 4.7. In step 2, this effect became non-significant, but GHQ scores were significantly associated with lower support- seeking scores (p-value<.001). In the final model, step 3, the war trauma exposure variable was omitted because it was not significant in the previous step. The effect of lower support seeking remained significant. The total variation that could be explained by the final model reached 79.2%.

Table 4. 7 Regression model with total GHQ scores as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R-square Of All steps
		B	Std. Error	Beta			
1	(Constant)	.547	.144		3.798	.000	.358
	War exposure	1.621	.219	.598	7.386	.000	
2	(Constant)	1.971	.172		11.443	.000	
	War exposure	.203	.168	.075	1.209	.230	
	Friends	.087	.095	.045	.919	.361	
	Family	-.099-	.170	-.030-	-.585-	.560	
	Problem solving	.026	.039	.034	.672	.504	
	Distractive	.000	.055	.000	.008	.993	.785
	Avoidance	-.054-	.059	-.046-	-.907-	.367	
	Seeking support	-.626-	.048	-.833-	-12.959-	.000	
3	(Constant)	1.916	.129		14.854	.000	
	War	.252	.161	.093	1.563	.121	
	Seeking support	-.589-	.047	-.783-	-12.421-	.000	
	War exposure * Seeking support	.509	.232	.110	2.191	.031	.787

R squared = .787 F(ANOVA) = 122.004, p-value < .001

4.5 Summary

This section summarizes the key findings, as reported above, in relation to parent-rated vulnerability factors and mental health problems (Table 4.7). The latter were determined by total IES-R and GHQ scores (or those of their equivalent subscales) as dependent variables. It had been hypothesized that lower problem-solving coping strategies and perceived social support (from families and friends) would negatively contribute to this association. As hypothesized, the results indicated that war trauma exposure was independently associated with both PTSD and general mental health symptoms. Lower problem-solving strategies did not contribute to this association, with the exception of

intrusion symptoms. However, lack of support-seeking strategies was independently associated with total GHQ scores, total IES-R scores and IES-R avoidance subscale scores. In chapter 5, we will consider the equivalent effect of vulnerability factors on child mental health through children's self-reports.

Table 4. 8 Key findings on parent-rated variables

	Psychopathology	Significantly associated variables
1	**Total IES-R scores**	War trauma exposure and lower support seeking
2	**IES-R avoidance subscale scores**	War trauma exposure and lower support seeking
3	**IES-R intrusion subscale scores**	War trauma exposure and lower problem solving
4	**IES-R hyperarousal subscale scores**	War trauma exposure
5	**Total GHQ scores**	Lower support seeking.

Chapter 5

The role of coping strategies and perceived social support in predicting child mental health problems

5.1 Introduction

This chapter presents the findings on the predictors of child mental health problems according to the research hypotheses: firstly, that exposure to war traumatic events in the Libyan civil war was associated with a higher severity of post-traumatic stress symptoms, as measured by total CRIES scores, and of general mental health problems, as measured by total SDQ scores; and secondly, that children's coping strategies (problem solving, distracting, avoidance and support-seeking strategies) and social networks (friends and family) made an independent contribution to this association.

This chapter is, therefore, structured in three sections in a similar manner to Chapter 4. Descriptive statistics data include mean scores, standard deviations, skewness and kurtosis. These are followed by exploratory analyses on the correlations between key variables. Finally, two hypotheses-testing models are presented, with the total CRIES and total SDQ scores representing the dependent variables.

5.2 Descriptive statistics

The missing data was less than 2% across all questionnaires, and was thus replaced in total and subscales scores by their mean score. This is considered an acceptable averaging technique, which is used to infer missing values (Anda et al., 1999; Howell, 2007). Moreover, it has been argued that if the amount of missing data is small, the use of mean substitution may only lead to minor bias (Howell, 2007). In this research, five questionnaires were used in relation to children's variables (war trauma, PTSD symptoms, general mental health problems, coping strategies, and support by family and friends). Demographic characteristics are first described below, followed by descriptive statistics on the five children's measures (Table 5.1), except for the coping strategies questionnaires

where, as with their parents, the subscales are presented throughout the analysis, as reflecting more meaningful constructs.

The children's mean age was 12.5 years, with SD=1.708 and a range between 9-15 years. Of those, 50% were female and 50% male. The majority of children (95%) lived with their parents, 81% lived in rented accommodation in the cities to where they had been displaced, and 63% who had lived in these cities for more than one year. Their family income was classified into three categories, i.e., high (13%) for those with income greater than 1,500 Libyan dinars, sufficient (66%) those with income greater than 1,000 Libyan dinars, and low (20%) those with income less than 500 Libyan dinars.

In Table 1 below, the following statistics are reported: mean, range, standard deviation, skewness and kurtosis.

Table 5. 1 Descriptive statistics of children's scales, including skewness and kurtosis

	N	Min	Max	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
War Trauma	99	3	18	10.49	3.51	.10	.241	-.54	.478
SDQ	100	16	42	31.60	6.41	-.56	.241	-.75	.478
CRIES	100	5	31	16.03	6.06	.92	.241	-.089	.478
Friends' Support	100	3	20	12.10	4.43	.07	.241	-1.13	.478
Family Support	100	2	19	14.22	4.01	-1.52	.241	2.30	.478
Problem Solving	100	12	48	31.05	8.30	-.29	.241	-.23	.478
Distractive Coping	100	6	18	12.13	2.89	-.13	.241	-.55	.478
Avoidance Coping	100	5	25	14.14	3.35	.41	.241	1.63	.478
Support Seeking	100	1	19	12.08	3.46	-.79	.241	.85	.478

5.3 Exploratory analysis

The strength of the relationships between children's vulnerability and mental health measures was initially tested using the Pearson correlation (r) test. The resulting correlation matrix is presented in Table 5.2. The total scores for the two mental health measures, CRIES and SDQ, were strongly correlated (r = .775, p-value < .001), which is consistent with the previous literature on the high comorbidity of mental health problems in war-affected and refugee children (Kostelny, 1994; Macksoud and Aber, 1996; Slone and Mann, 2016; Soysa and Azar, 2016).

Total SDQ scores were positively correlated with war trauma exposure (r = .479, p-value < .001). In contrast, there was a significant negative correlation between SDQ and family support (r = -.343, p-value < .001), problem solving (r = -.447, p-value < .001), distracting strategies (r = -.438, p-value < .001), (r = -.387, p-value < .001) and support seeking (r = -.282, p-value = .005) strategies scores.

A similar pattern was established for total CRIES scores. These were significantly correlated with exposure to war trauma (.385, p-value < .001). In contrast, they were negatively correlated with problem solving (r = -.400, p-value < .001), distraction (r = -.271, p-value < .001), avoidance (r = -.273, p-value = .006) and support seeking (r = -.208, p-value = .038) strategies.

If the correlation (r) between two covariate variables is found to be ≥ .95, the data may be problematic in terms of its collinearity. As the established correlations between the key variables were < .70, this was not considered to represent a constraint to the following regression models.

Table 5.2

Correlation matrix of children's vulnerability and mental health scores

			SDQ	CREIS	War trauma	Family Support	Friends' Support	Problem Solving	Distracting Strategies	Avoidance Strategies	Seeking Strategies
SDQ		Correlation	1	.775**	.479**	-.343-**	.026	-.447-**	-.438-**	-.387-**	-.282-**
		P-value		.000	.000	.000	.799	.000	.000	.000	.005
		N		100	100	100	100	100	100	100	100
CREIS		Correlation		1	.385**	-.154-	-.122-	-.400-**	-.271-**	-.273-**	-.208-*
		P-value			.000	.126	.228	.000	.006	.006	.038
		N			100	100	100	100	100	100	100
War trauma		Correlation			1	-.374-**	.086	-.183-	-.180-	-.188-	-.056-
		P-value				.000	.394	.069	.073	.061	.577
		N				100	100	100	100	100	100
Family Support		Correlation				1	-.183-	.106	.135	.151	-.054-
		P-value					.068	.293	.181	.135	.591
		N					100	100	100	100	100
Friends Support		Correlation					1	-.068-	.012	-.007-	.117
		P-value						.499	.903	.946	.247
		N						100	100	100	100
Solving	Problem	Correlation						1	.634**	.500**	.639**
		P-value							.000	.000	.000
		N							100	100	100
Strategies	Distracting	Correlation							1	.548**	.654**
		P-value								.000	.000
		N								100	100
Strategies	Avoidance	Correlation								1	.463**
		P-value									.000
		N									100
Strategies	Seeking	Correlation									1
		P-value									
		N									

5.4 Hypothesis-testing analyses

The total CRIES and SDQ scores (dependent variables) were hypothesized to be affected by exposure to war trauma. In addition, coping strategies and perceived social support (family and friends) were hypothesized to independently contribute to this association. These hypotheses were thus tested through a series of regression models by introducing the vulnerability variables (coping strategy subscales, perceived family and friend support) as co-variates.

The model was developed in steps by entering demographic variables in model 1, and by only retaining significant variables in the following step. The war trauma variable and any significant variables from model 1 were added in step 2. Social support and coping strategies plus any retained significant variables from step 2 were included in step 3. Finally, an interaction variable was created between the war trauma variable (if significantly associated with mental health measures, as predicted by hypothesis 1) and any variable that showed significant effect. These interaction variables were added to the final step 4, and the research hypotheses were confirmed or rejected on the basis of this final model. The regression assumptions (residuals normality, residuals homogeneity, and independency among exploratory variables) were verified and found to be valid. Separate models were developed with total CRIES (PTSD symptoms) and SDQ (mental health symptoms) scores as the dependent variables. Each model was subsequently repeated for its equivalent CRIES intrusion or avoidance subscales, and the more common SDQ emotional and conduct problems subscales.

5.4.1 Total CRIES scores as the dependent variable

Building a regression model using purely demographic variables did not result in any significant effects on the CRIES scores in step 1, and hence none of these variables were retained (Table 5.3). In step 2, CRIES scores were found to be positively affected by the war trauma variable (p-value < .001), which was accordingly retained in the model. In step 3, friends' support (p-value = .034) and problem-solving strategies scores (p-value = .003) significantly reduced the effect on the CRIES scores, and thus those variables and their interaction with exposure to war trauma were included in step 4 (final model). However, adding these interaction variables to the final model did not contribute significantly. Also, the contribution of friends' support ceased to be significant. In this final model, exposure to war trauma (p-value < .001) was significantly associated with an increase in CRIES scores, whilst problem-solving strategies (p-value < .001) had the opposite, significant effect. The total variation in CRIES scores that could be explained by the final model was 29.4%. Furthermore, the study reported that 56% of 100 displaced children scored above the cut-off score for a likely PTSD diagnosis.

Table 5. 3. Regression model with total CRIES scores as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	P-value	R- square
		B	Std. Error	Beta			
1	(Constant)	2.913	.600		4.852	.000	.027
	Children's age	-.043-	.042	-.114-	-1.012-	.314	
	Children's gender	-.066-	.130	-.052-	-.509-	.612	
	Years in new city	-.051-	.092	-.058-	-.559-	.578	
	Family income	-.071-	.109	-.067-	-.649-	.518	
	Number of sisters	-.009-	.041	-.023-	-.220-	.826	
	Number of brothers	.054	.044	.136	1.219	.226	
2	(Constant)	1.464	.188		7.798	.000	.148
	War trauma	1.611	.391	.385	4.124	.000	
3	(Constant)	2.920	.474		6.165	.000	.299
	War trauma	1.335	.401	.319	3.327	.001	
	Family support	-.035-	.280	-.012-	-.124-	.901	
	Friends support	-.610-	.287	-.192-	-2.121-	.037	
	Problem solving	-.723-	.234	-.392-	-3.092-	.003	
	Distracting strategies	.009	.260	.005	.036	.971	
	Avoidance strategies	-.172-	.262	-.071-	-.657-	.513	
	Seeking support	.186	.216	.112	.858	.393	
4	(Constant)	2.739	.370		7.399	.000	.294
	War trauma	1.389	.375	.332	3.708	.000	
	Friends support	-.485-	.308	-.153-	-1.571-	.119	
	Problem solving	-.639-	.165	-.346-	-3.883-	.000	
	Interaction war trauma* Friends support	.976	1.746	.054	.559	.577	
	Interaction war trauma* Low problem solving	-.512-	1.350	-.034-	-.379-	.705	

R squared = 0.294 F(ANOVA) = 7.81 p-value < .001

5.4.1.1 CRIES intrusion subscale scores as the dependent variable

The two CRIES subscales were subsequently entered as the dependent variables in separate regression analyses to test whether risk factors operated differently from the total PTSD symptoms model. No demographic variables had any significant effect in step 1, but war trauma did in step 2 (p-value < .001) (Table 5.4). In a similar manner to total scores, there

was a negative association with friends' support (p-value = .036) and problem-solving strategies (p-value < .001) in step 3. These remained independently significant in their contribution to step 4, despite introducing additional interaction variables with exposure to war trauma, i.e., war trauma (p-value < .001), lack of friends' support (p-value = .029) and lower problem-solving strategies (p-value < .001). The total variation in intrusion scores explained by the final model was 32.9%.

Table 5. 4 Regression model for CRIES intrusion subscale scores

Model		Unstandardized Coefficients		Standardized Coefficients	T	P-value	R-square
		B	Std. Error	Beta			
1	(Constant)	2.554	.752		3.397	.001	.061
	Children's age	-.032-	.049	-.073-	-.652-	.516	
	Children's gender	.012	.151	.008	.076	.939	
	House or not	.131	.196	.069	.670	.505	
	Years in new city	-.044-	.106	-.042-	-.410-	.683	
	Family income	-.126-	.126	-.102-	-.996-	.322	
	Number of sisters	.011	.047	.025	.242	.809	
	Number of brothers	.102	.051	.221	1.987	.050	
2	(Constant)	1.309	.211		6.193	.000	
	War trauma	2.225	.440	.455	5.059	.000	.035
3	(Constant)	2.689	.535		5.026	.000	
	War trauma	2.082	.453	.426	4.593	.000	.211
	Family support	.248	.316	.074	.784	.435	
	Friends' support	-.691-	.325	-.186-	-2.128-	.036	
	Problem solving	-.732-	.264	-.340-	-2.772-	.007	
	Distracting strategies	.127	.294	.055	.434	.666	
	Avoidance strategies	-.396-	.296	-.140-	-1.335-	.185	
	Seeking support	.197	.244	.102	.807	.421	
4	(Constant)	2.795	.421		6.637	.000	
	War trauma	2.054	.426	.420	4.821	.000	.329
	Friends' support	-.777-	.351	-.210-	-2.214-	.029	
	Problem solving	-.664-	.187	-.309-	-3.548-	.001	
	Interaction war trauma* Friends support	-1.371-	1.986	-.065-	-.690-	.492	
	Interaction war trauma* Low problem solving	.710	1.536	.040	.462	.645	

R squared = 0.329 F(ANOVA) = 9.207 p-value < .001

5.4.1.2 CRIES avoidance subscale scores as the dependent variable

There was a different pattern in the factors associated with avoidance symptoms (Table 5.5). Although these were positively affected by exposure to war trauma in step 2 (p-value = .028), this association became non-significant in step 3, where only problem-solving strategies were found to have a negative significant effect (p-value = .011). This remained significant in step 4, whilst no significant effect resulted from the addition of their interaction with war trauma. The total variation in avoidance symptoms explained by the final model was much lower than for the previous models at only 13.2%. Overall, it appeared that coping strategies were more specific in the mechanisms involved in children experiencing avoidance symptoms, in contrast with intrusion which reflected the development of PTSD symptoms and with that model also involving the direct impact of trauma and lack of peer support.

Table 5. 5 Regression model for CRIES avoidance subscale scores

Model		Unstandardized Coefficients		Standardized Coefficients	t	P-value	R-square
		B	Std. Error	Beta			
1	(Constant)	3.080	.706		4.362	.000	.032
	Children's age	-.051	.046	-.126-	-1.116-	.267	
	Children's gender	-.154	.142	-.112-	-1.086-	.280	
	House or not	-.003-	.184	-.002-	-.017-	.986	
	Years in new city	-.061-	.100	-.063-	-.608-	.544	
	Family income	-.007-	.118	-.006-	-.059-	.953	
	Number of sisters	-.027-	.044	-.064-	-.618-	.538	
	Number of brothers	.009	.048	.020	.181	.857	
2	(Constant)	1.620	.215		7.547	.000	048
	War trauma	.998	.447	.220	2.235	.028	
3	(Constant)	3.152	.556		5.666	.000	.174
	War trauma	.588	.471	.130	1.248	.215	
	Family support	-.317-	.328	-.102-	-.966-	.337	
	Friends' support	-.528-	.337	-.154-	-1.566-	.121	
	Problem solving	-.715-	.275	-.358-	-2.601-	.011	
	Distracting strategies	-.109-	.306	-.051-	-.356-	.723	
	Avoidance strategies	.051	.308	.019	.164	.870	
	Seeking support	.174	.254	.097	.685	.495	
4	(Constant)	1.445	.243		5.937	.000	.132
	Problem solving	.374	.170	.218	2.203	.030	
	Interaction war trauma* Low problem solving	-1.715-	1.624	-.105-	-1.056-	.294	

R squared = 0.132 F(ANOVA) = 735 p-value = .001

5.4.2 Total SDQ scores as the dependent variable

Exposure to war trauma and lack of problem-solving strategies were the identified risk factors in predicting general mental health problems (Table 5.6). In step 2, total SDQ scores were positively affected by exposure to war trauma (p-value < .001), and negatively affected by problem-solving strategies (p-value = .039) in step 3. In the final model, both war trauma exposure (p-value < .001) and problem-solving strategies remained independently significant (p-value < .001), despite the introduction of an interaction variable between the two. The total variation in SQD scores explained by the final model was 37.1%.

Table 5. 6 Regression model for total SDQ scores

	Model	Unstandardized Coefficients		Standardized Coefficients	t	P-value	R-square
		B	Std. Error	Beta			
1	(Constant)	1.415	.260		5.448	.000	.055
	Children's age	-.012-	.017	-.078-	-.699-	.486	
	Children's gender	-.038-	.052	-.074-	-.727-	.469	
	House or not	.089	.068	.136	1.314	.192	
	Years in new city	-.051-	.037	-.143-	-1.398-	.166	
	Family income	.005	.044	.011	.104	.917	
	Number of sisters	-.013-	.016	-.079-	-.772-	.442	
	Number of brothers	.017	.018	.108	.972	.334	
2	(Constant)	.896	.072		12.469	.000	
	War trauma	.807	.149	.479	5.398	.000	.229
3	(Constant)	1.669	.173		9.662	.000	
	War trauma	.556	.146	.330	3.795	.000	
	Family support	-.186-	.102	-.161-	-1.821-	.072	
	Friends' support	-.069-	.105	-.054-	-.654-	.515	.424
	Problem solving	-.179-	.085	-.241-	-2.094-	.039	
	Distracting strategies	-.145-	.095	-.182-	-1.527-	.130	
	Avoidance strategies	-.104-	.096	-.107-	-1.088-	.279	
	Seeking support	.038	.079	.057	.479	.633	
4	(Constant)	1.308	.112		11.693	.000	
	War trauma	.669	.140	.397	4.764	.000	.371
	Problem solving	-.266-	.062	-.358-	-4.307-	.000	
	Interaction war trauma* Low problem solving	-.568-	.506	-.093-	-1.121-	.265	

R squared = 0.371 F(ANOVA) = 18.87 p-value = .001

5.4.2.1 SDQ Emotional problems subscale scores as the dependent variable

No risk factors, except for exposure to war trauma, were significantly associated with SDQ emotional problems subscale scores when these were introduced as the dependent variable in a new model (Table 5.7). This was significant at < .001 in step 2. The total variation in SDQ emotional problems scores explained by the final model was 31%.

Table 5. 7 Regression model for SDQ emotional problems scores

Model		Unstandardized Coefficients		Standardized Coefficients	t	P-value	
		B	Std. Error	Beta			
1	(Constant)	1.451	.321		4.528	.000	0.62
	Children's age	-.018-	.021	-.099-	-.886-	.378	
	Children's gender	-.101-	.064	-.160-	-1.574-	.119	
	House or not	.082	.083	.101	.982	.329	
	Years in new city	-.046-	.045	-.103-	-1.010-	.315	
	Family income	.048	.054	.091	.886	.378	
	Number of sisters	-.011-	.020	-.054-	-.534-	.594	
	Number of brothers	.023	.022	.115	1.038	.302	
2	(Constant)	.762	.089		8.593	.000	.235
	War trauma	1.013	.185	.485	5.488	.000	
3	(Constant)	.911	.229		3.980	.000	.341
	War trauma	.935	.194	.448	4.822	.000	
	Family support	.187	.135	.131	1.385	.169	
	Friends' support	.215	.139	.136	1.550	.125	
	Problem solving	-.211-	.113	-.229-	-1.864-	.065	
	Distracting strategies	-.099-	.126	-.100-	-.787-	.434	
	Avoidance strategies	-.161-	.127	-.134-	-1.268-	.208	
	Seeking strategies	.159	.105	.193	1.525	.131	

R squared = 0.341 F(ANOVA) = 6.18 p-value = .001

5.4.2.2 SDQ Conduct problems subscale scores as the dependent variable

A similar pattern was established for SDQ conduct problems subscales scores as the dependent variable (Table 5.8). Again, only exposure to war trauma was significantly associated in step 2 (p-value < .001). The total variation in SDQ conduct problems scores explained by the final model was 31%.

Table 5. 8 Regression model for SDQ conduct problems subscales scores

Model		Unstandardized Coefficients		Standardized Coefficients	t	P-value	R- square
		B	Std. Error	Beta			
1	(Constant)	1.511	.427		3.535	.001	.060
	Children's age	-.032-	.028	-.130-	-1.162-	.248	
	Children's gender	-.004-	.086	-.005-	-.045-	.964	
	House or not	.166	.111	.154	1.490	.140	
	Years in new city	-.054-	.060	-.091-	-.889-	.377	
	Family income	.017	.072	.024	.237	.813	
	Number of sisters	-.023-	.027	-.086-	-.847-	.399	
	Number of brothers	.040	.029	.152	1.368	.175	
2	(Constant)	.777	.123		6.339	.000	
	War trauma	1.168	.255	.420	4.578	.000	.176
3	(Constant)	1.880	.311		6.040	.000	.314
	War trauma	.795	.264	.286	3.014	.003	
	Family support	-.356-	.184	-.186-	-1.938-	.056	
	Friends' support	-.202-	.189	-.096-	-1.072-	.286	
	Problem solving	-.278-	.154	-.227-	-1.806-	.074	
	Distracting strategies	-.246-	.171	-.187-	-1.438-	.154	
	Avoidance strategies	-.028-	.172	-.018-	-.164-	.870	
	Seeking support	.112	.142	.102	.789	.432	

R squared = 0.314 F(ANOVA) = 6.027 p-value < .001

5.5 Summary

This section summarizes the key findings reported above in relation to child-rated vulnerability factors and mental health problems (Table 5.9). The latter were determined by total CRIES and SDQ (or their equivalent subscales) scores as dependent variables. It had been hypothesized that lower problem-solving strategies and social support (from family and friends) would negatively contribute to this association. The results indicate that war trauma exposure and low problem-solving strategies were independently associated with both total PTSD and general mental health symptoms.

Table 5. 9 Key findings on child-rated variables

	Psychopathology	Significantly associated variables
1	**Total CRIES scores**	War trauma exposure and low problem-solving strategies
2	**CRIES intrusion subscale scores**	War trauma exposure, low friends support and problem-solving strategies
3	**CRIES avoidance subscale scores**	Low problem-solving strategies
4	**Total SDQ scores**	War trauma exposure and low problem-solving strategies.
5	**SDQ emotional problems subscales scores**	War trauma exposure
6	**SDQ conduct problems subscales scores**	War trauma exposure

5.6 Parental and child predicting factors of child mental health

So far, the two models have been developed independently for parents and children. As the contribution due to parental mental health and other risk factors to war-affected children's own mental health is well established, the next stage of this analysis tested the third hypothesis. In this model, the independent variables included parental psychopathology because of the substantive body of evidence and its predictors as found in Chapter 4 (lack

of seeking support); as well as the children's predictors found in this chapter (low problem-solving), which are presented in Table 5.10. Two regression models were thus built for both total children's CRIES and SDQ scores as the dependent variables.

Table 5. 10 Independent and dependent variables entered in the regression model to test the third hypothesis

Independent variables	Depended variables
Children's war trauma exposure	CRIES scores; or
Children's problem-solving strategies	SDQ scores
Parents' mental health (GHQ)	
Parents' PTSD symptoms (IES)	
Parents' seeking support	

5.6.1 Total SDQ scores as the dependent variable

Using linear regression, the fitted model for SDQ was highly significant (F(ANOVA) = 17.29, p-value < .001), and the total of variation in SDQ scores explained by the variables in the model was 47.9%. Exposure to war trauma (p-value < .001) was found to significantly increase SDQ scores, while the inclusion of children's problem-solving strategies scores (p-value < .001) significantly reduced the effect on SDQ scores. In contrast, the selected parental factors did not make any significant contributions to SDQ scores. The effect of children's factors thus did not change as a result of adding the parental factors into the model (Table 5.11).

Table 5. 11 Child and parent risk factors' effect on total SDQ scores

Model	Unstandardized Coefficients		Standardized Coefficients	t	P-value	R-square
	B	Std. Error	Beta			
(Constant)	.519	.216		2.400	.018	.479
War trauma exposure	.602	.129	.357	4.655	.000	
Children's problem solving strategies	-.278	.058	-.375	-4.801	.000	
Parents' GHQ scores	.033	.097	.057	.344	.732	
Parents' IES scores	.009	.033	.023	.279	.781	
Parents' seeking support	-.097	.070	-.221	-1.386	.169	
	R squared = .479, F(ANOVA) = 17.287 p-value < .001					

5.6.2 Total CRIES scores as the dependent variable

In terms of children's total CRIES scores, the fitted model was also highly significant (F(ANOVA) = 9.66, p-value < .001), and the total variation in CRIES scores explained by the variables in the model was 34%. Similar to the SDQ model, children's exposure to war trauma (p-value < .001) was significantly associated with CRIES scores, while problem-solving strategies scores (p-value < .001) significantly reduced the effect on CRIES scores. Again, parental factors did not make any significant contribution to the model.

Table 5. 12 Child and parent risk factors' effect on total CRIES scores

Model	Unstandardized Coefficients		Standardized Coefficients	t	P-value	R- square
	B	Std. Error	Beta			
(Constant)	-.086	.605		-.142	.887	.340
War trauma exposure	1.172	.362	.280	3.236	.002	
Children's problem solving strategies	-.564	.162	-.306	-3.480	.001	
Parents' GHQ scores	.340	.272	.236	1.254	.213	
Parents' IES scores	.104	.092	.104	1.137	.259	
Parents' seeking support	.026	.195	.024	.134	.893	

R squared = .340 F(ANOVA) = 9.66 p-value < .001

5.7 Summary

This section summarizes the key findings reported above regarding the association between parental and child-rated vulnerability factors with child mental health problems (Table 5.13). The latter were determined using total CRIES and SDQ scores as the dependent variables. It was hypothesized that "parental and child risk factors will adversely affect children's mental health". These were based on the findings of the previous analyses when testing hypotheses 1 and 2, and from the research literature, i.e., children's exposure to war trauma, children's low problem-solving strategies, parental psychopathology (total GHQ and IES-R scores), and low parental support-seeking strategies. The results indicate that children's exposure to war trauma and low problem-solving strategies were independently associated with both PTSD and general mental health symptoms. However, parental factors did not contribute to this association.

Table 5. 2 Key findings on predictors of children's mental health problems

	Psychopathology	Significantly associated variables
1	**Total CRIES scores**	War trauma exposure and low problem-solving strategies
4	**Total SDQ scores**	War trauma exposure and low problem-solving strategies

Finally, the possibility that the sociocultural background of the sample of this study may have had an effect on the vulnerability and mental health constructs measured was taken into account. Therefore, it was considered important that all scales were subjected to exploratory factor analysis (EFA). Depending on the emerging factors, and whether these resulted in different subscales than those reported in the literature, the affected analyses in Chapters 4 and 5 would be repeated accordingly using the revised subscales.

Chapter 6

Parental scales construction and exploratory factor analysis

6.1 Introduction

After presenting the main analysis of the data, this chapter focusses on the implementation of exploratory factor analysis (EFA) for the ten measures used in this study, as completed equally by parents and children. Although all measures were selected because they were already well established and used extensively in related research, it was important to understand the nature of the present data, i.e., how these operated in this particular sample (Windle et al., 2011). Despite the sample of this study sharing broadly similar characteristics with other groups that had experienced war conflict and displacement, it was also relatively distinct in terms of experience of traumatic events, as well as in sociocultural background. Such factors may thus affect the underlying structure of items or subscales (Yildirim and Belen, 2018). If this is the case, this may in turn influence which variables (subscales) are entered in the main analysis. Exploratory factor analysis (EFA) can enhance such understanding, as well as simplify the item structure of the scales by considering the relationship between these items and the associated factors (e.g., the strength of the relationship between the items and variables) (Hayton et al., 2004). The rationale for using EFA was thus to investigate whether the constructs resulting from using fewer items, as a result of applying this approach, could lead to similar regression results as the original constructs shown in Sections 4.3.1, 4.4, 5.4.1 and 5.4.2.

6.2 Criteria for the exploratory factor analysis procedure

There are various criteria that should be taken into consideration when EFA is carried out. This can be considered as a data reduction technique. By reducing the data, we would, therefore, be able to identify common themes across items. There are several reduction techniques used to identify such common themes, for example principal

component analysis, which is utilized when the data is not normally distributed. Otherwise, the maximum likelihood analysis would be more appropriate if the data were normally distributed (Fabrigar, 1999; Costello and Osborne, 2005; Kleinbaum and Klein, 2010). Second, a sufficient sample size is needed for EFA to demonstrate the underlying structure of the items. For this reason, the Kaiser-Meyer-Olkin (KMO) Test was used to investigate sampling adequacy. In this case, researchers have suggested that the KMO should be above 0.5 for one to conclude that the sample is adequate for performing EFA (Kaiser, 1974).

Third, establishing the correlation between variables is an important assumption in the implementation of EFA. If there is no significant correlation between variables, EFA will not perform well. The Bartlett's Sphericity Test (e.g., at a significance level of $p < .0001$) can, therefore, be used to explore the correlation between the variables that can be summarized by a small number of factors (Field, 2000). Fourth, it is important to decide on the number of factors, with three techniques most commonly used in this regard being an eigenvalue greater than 1, Scree Plot Test, and Monte Carlo Parallel Analysis (Child, 1990). In this study we estimated and reported values based on all three of these techniques.

Fifth, when EFA is performed, it is also important to consider the rotation of factors to identify with items' loading on each of the factors (Maltby, 2013). For instance, if three factors have eigenvalues above 1, then we should perform a new rotation of these three factors. This procedure will show us how the items load on these factors. Furthermore, the Direct-Oblimin method was adopted in this study, as this technique attempts to simplify the scales structure but can also be utilized if there are relationships between items and factors (Costello, 2009). Moreover, the researcher used this technique because it indicates how the different factors are related to one another and it is more interpretation than the orthogonal rotations and it also had produced the clearest solution. (Maltby, 2013). Although, this study did not examine the differences and deviation between these two

methods, the previous studies were indicated that the choice of rotation may not make much difference (Corner, 2009).

Sixth, it is important to take into account item loading to the corresponding factors. Each item is assessed according to their significance, thus providing an indication of the loadings that the items have through the pattern matrix; there may be both negative and positive loadings in relation to the variables. Furthermore, it has been proposed that loadings lower than 0.3 should not be overlooked. For example, in Table 6.3 there is no item loading less than 0.3 because any such items are considered to have poor loading, which may in turn affect the validity of the research findings and each factor should contain three items at least (Kline, 1986; Maltby, 2013).

Finally, the loading of each factor needs to be considered in order to label it, which is an essential process. It is the researcher's own perspective that determines the characteristics of the factor rather than factor analysis alone. Maltby (2013) suggested that items associated with a factor will not necessarily be precisely indicated in the factor naming process, which can be a disadvantage. This means that new variables have to be named as a result of the rotation process. For instance, if we found three instead of two factors in the original scale, we would need to rename these factors.

In the first analysis of the Impact of Event Scale - Revised, sampling, eigenvalues and maximum likelihood extraction will be presented in detail in order to demonstrate the different aspects of the EFA process. However, to avoid repetition, subsequent analyses will not include these three tables. Based on these criteria, the key results of the EFA, one for each scale, are presented below.

6.3 Impact of Events Scale - Revised (IES - Hyer and Brown, 2008)

In accordance with Field (2000), and as presented in Table 6.1, the factor system could be analysed sufficiently given that a value of 0.613 (i.e., greater than 0.5) was obtained for the KMO, which means that the sample size is sufficient for EFA. Furthermore, the factor conditions were sufficient for assessment, with a significant value of $p < .0001$ for the Bartlett's Sphericity Test.

Table 6. 1 Sampling Adequacy for the Impact of Event Scale - Revised

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.613
Bartlett's Sphericity Test	Approx. Chi-Square	724.279
	Df	231
	Sig.	.000

Seven variables were identified as likely on the basis of the degree of discrepancy between items and the scree-plot initial investigation (see eigenvalues in Table 6.2).

Table 6. 2 Eigenvalues of Impact of Event Scale - Revised items

Component	Total	Variance	Cumulative	Parallel analysis
1	3.414	15.520	15.520	1.9692
2	2.687	12.216	27.736	1.7815
3	2.439	11.085	38.821	1.6468
4	1.904	8.655	47.476	1.5367
5	1.657	7.531	55.007	1.4339
6	1.363	6.197	61.204	1.3427
7	1.100	4.999	66.203	1.001

In terms of evaluating items' loadings, as indicated in Table 6.2 these were found to vary from satisfactory to good. Six variables were identified as likely on the basis of the degree of discrepancy between items and the scree-plot initial investigation. The eigenvalues for each of the factors were 3.414 (factor 1), 2.687 (factor 2), 2.439 (factor 3), 1.904 (factor 4), 1.657 (factor 5), 1.363 (factor 6) and 1.100 (factor 7). The amount of variance accounted for by each factor was 15.520% (factor 1), 12.216% (factor 2), 11.085% (factor 3), 8.655% (factor 4), 7.531% (factor 5), 6.197% (factor 6) and 4.999% (factor 7) (see Maximum Likelihood Extraction in Table 6.3).

The variables to be extracted can be identified by contrasting the eigenvalues of an arbitrary dataset with those of one's own dataset as a parallel analysis. Each of the first five eigenvalues exceeded the equivalent eigenvalues in the random dataset. For example, the first eigenvalue of 3.414 exceeded the first eigenvalue in the random dataset of 1.9692, and so on. However, the six eigenvalue of 1.363 failed to exceed the sixth eigenvalue of 1.342 in the random dataset.

Consequently, if any of the arbitrary dataset eigenvalues were exceeded by the variables in the main dataset, then the latter variables were extracted on the basis of this comparison. The position that the eigenvalues in our own dataset are not of an arbitrary nature can then be assumed if they surpass the level of the eigenvalues in the indiscriminately produced dataset (Maltby, 2013). For the above reasons, we selected a five-factor model.

Table 6. 3 Maximum Likelihood Extraction with Direct Oblimin Rotation of the IES-R items

N	IES-R item	F-1	F-2	F-3	F-4	F-5
		Pattern Matrix				
11	I tried not to think about it.	.877				
8	I stayed away from reminders about it.	.833				
7	I felt as if it hadn't happened or wasn't real.	.764				
6	I thought about it when I didn't mean to.	.497				
14	I found myself acting or feeling like I was back at that time.		.840			
1	Any reminder brought back feelings about it.		.755			
2	I had trouble staying asleep.		.715			
3	Other things kept making me think about it.		.662			
4	I felt irritable and angry.		.559			
19	Reminders of it caused me to have physical reactions such as sweating, trouble breathing, nausea, or a pounding heart.			.701		
15	I had trouble falling asleep.			.698		
20	I had dreams about it.			.601		
10	I was jumpy and easily startled.			.536		
18	I had trouble concentrating.			.520		
16	I had waves of strong feelings about it.			.417		
22	I tried not to talk about it.				.898	
17	I tried to remove it from my memory.				.877	
5	I avoided letting myself get upset when I thought about it, or was reminded of it.				.638	
13	My feelings about it were kind of numb.				.337	
9	Pictures about it popped into my mind.					.798
12	I was aware that I still had a lot of feelings about it, but I didn't deal with them.					.571
21	I felt watchful and on guard.					.556

According to Comrey and Lee (1992), as well as Tabachnick and Fidell (2007), .032 indicates a poor loading factor, 0.45 fair, 0.55 good, 0.63 very good and 0.71 excellent. So, if we look at the rotated solution for the data, we can see that the items range between fair and excellent, except for item 13, which is low by loading on factor 4. Consequently,

this suggests that we have five factors on which different items load. The Cronbach's alpha coefficient was 0.652. Although the psychometric structure of the IES-R was largely consistent with the three-factor structure widely reported in the literature (Thatcher and Krikorian, 2005), this result is not consistent with the original scale. This might be because the original authors did not perform confirmatory factor analysis, or because of different sociocultural sampling factors (Norhayati and Aniza, 2014).

If we look at the above Table 6.3, we can see that there are five factors instead of three in the original scale. Next, we need to give these factors names that reflect their new item structure. The first subscale includes four items, not dissimilar to, but distinct from Avoidance, which were considered conceptually closer to the psychodynamic defence mechanism Suppression. The next three factors are consistent with the literature, i.e., second factor of five items (Intrusion), third factor of six items (Hyperarousal), and fourth factor of four items (Avoidance). The fifth factor consists of three rather heterogeneous items, which could be grouped under the term Anxiety. Furthermore, the IES-R Cronbach's score in this study was 0.852.

Table 6. 4 Discrimination between items before and after the EFA procedure

Initial IES-R (Horowitz et al., 1979)			Extraction IES (EFA)		
N	Subscale	items	N	Subscale	items
1	Intrusion	8	1	Suppression	4
2	Avoidance	8	2	Intrusion	5
3	Hyperarousal	6	3	Hyperarousal	6
			4	Avoidance	4
			5	Anxiety	3
Total	3 subscales	22 items	Total	5 subscales	22 items

In summary, we would argue that the Impact of Event Scale-Revised may contain five factors in certain sociocultural contexts, which would be useful for a more detailed measurement of PTSD symptoms among adults.

6.3.2 General Health Questionnaire (GHQ - Goldberg and Williams, 1988)

The sample was adequate, as the Kaiser-Meyer-Olkin measure of sampling adequacy for the GHQ was 0.754 and the Bartlett's Sphericity Test showed $p < .001$. The eigenvalues and scree-plot tests showed that the scale included four factors. The eigenvalues for each of these factors were 3.970 (factor 1), 1.828 (factor 2), 1.107 (factor 3) and 1.008 (factor 4). The amount of variance accounted for by each factor was 33.080% (factor 1), 48.311% (factor 2), 57.540% (factor 3) and 65.943% (factor 4). Although the eigenvalues and Scree plot tests showed that the scale included four factors, the parallel analysis produced two factors. This parallel analysis indicated that only the first two eigenvalues exceeded their equivalents in the random dataset (first: 3.970 vs 1.6098; second 1.828 vs 1.7822). Consequently, two factors were retained.

Similar debates on the psychometric structure of the General Health Questionnaire have been raised previously. Most evaluations have proposed a one-factor structure (Winefield et al., 1989; Aguado et al., 2012; Doyle et al., 2012). This factor has been termed the ‘general mental health’ or ‘psychiatric morbidity’ (Cheung, 2002). Other authors have concluded that a two-factor structure is more appropriate, with the two factors being ‘psychological distress’ and ‘social dysfunction’ (Norhayati and Aniza, 2014).

The loading items for the first factor, which was named ‘mental health problems’, ranged between 0.661and 0.829 and is thus considered a satisfactory loading. The same applied to the second factor (referred to as ‘managing problems’) items, which ranged

between 0.511 and 0.765. However, as item 2 did not load with any factor, this did not seem to fit with the dataset. Otherwise, this item is not a concern in this study, because it may affect its outcome, see appendix N (Maltby et al., 2015). Furthermore, the reliability of the General Health Questionnaire version in this study was 0.694, which is considered as satisfactory internal reliability. Therefore, we would suggest that we have two factors on which different items load (Landis and Koch, 1977; Nunnally, 1978; Cicchetti and Sparrow, 1981), as presented in Table 6.5.

Table 6.5 Discrimination between GHQ items before and after the EFA procedure

Original GHQ (Goldberg and Williams, 1988)			Extraction IES (EFA)		
N	Subscale	Items	N	Subscale	Items
1	Depression	3	1	Mental health problems	8
2	Anxiety	3	2	Managing problems	3
3	Somatic	3			
4	Social dysfunction	3			
Total	4 subscales	12	Total	2 subscales	11

6.3.3 Gaza War Traumatic Event Checklist (Thabet and Thabet, 2016)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.679; Bartlett's Sphericity Test, $x^2 = 856.421$, df = 253, $p < .001$. For the number of factors, the eigenvalues and Scree plot tests showed that the scale included seven factors. The eigenvalues for each of the factors were 4.534 (factor 1), 2.456 (factor 2), 2.338 (factor 3), 1.985 (factor 4), 1.566 (factor 5), 1.202 (factor 6), and 1.037 (factor 7). The amount of variance accounted

for by each factor was 19.712% (factor 1), 30.391% (factor 2), 40.555% (factor 3), 49.186% (factor 4), 55.994% (factor 5), 61.219% (factor 6) and 65.728% (factor 7).

Although the eigenvalues and Scree plot tests showed that the scale includes seven factors, the parallel analysis produced four factors. Parallel analysis indicated that the first eigenvalue, 4.534, exceeded the first eigenvalue in the random dataset of 1.9955. Similarly, the second eigenvalue, 2.456, exceeded the second eigenvalue in the random dataset, 1.8105; and the third eigenvalue, 2.338, was higher than the third eigenvalue in the random dataset of 1.6759. The fourth eigenvalue, 1.985, also exceeded the fourth eigenvalue in the random dataset of 1.5630. However, the fifth eigenvalue, 1.366 failed to exceed the fifth eigenvalue in the random dataset of 1.4623. Therefore, for this scale, we retained a four-factor solution.

So, if we look at the rotated solution for the data, we can see that factor 1 contained items 5, 7, 8, 9, 10, 13, 14, 15 and 20, with loadings ranging between 0.418 and 0.633. Items 21, 22 and 23 loaded on the second factor with a range of high loadings between 0.808 and 0.926. Factor 3 contained items 1, 2 and 3, with a range of loadings between 0.655 and 0.831. Furthermore, factor 4 loaded negatively on its items (e.g., 16, 18,19,17,12 and 6), and it ranged between poor (0.32) to excellent (0.71) loading. Therefore, we would suggest the use of four factors on which different items load, see appendix O.

Ultimately, we would argue that the Gaza War Traumatic Event Checklist contains four factors: factor 1, called ‘witnessing’, which consists of nine items; factor 2, called ‘experience’, which consists of three items; factor 3, called ‘hearing’, and which contains three items; and factor 4, named ‘threatened’, which contains six items (see Table 6.6). Furthermore, the reliability of the Gaza Traumatic Events Checklist version in this study was 0.792, which is considered high internal reliability.

Table 6. 6 Discrimination between Gaza Traumatic Events Checklist Subscales before and after the EFA procedure

Initial: Thabet and Thabet, 2016			**Extraction:** EFA		
N	Subscales	Items	N	Subscales	Items
1	Hearing	4	1	Witnessing	9
2	Witnessing	9	2	Experience	3
3	Personal experience	10	3	Hearing	3
			4	Threatened	6
Total	3 subscales	23	Total	4 subscales	21

Therefore, the 23-item Gaza War Traumatic Event Checklist was acceptable for use as a measure of war trauma in adults. However, we would suggest from the exploratory factor analysis that we should extract two items (11 and 4) because each factor should contain at least three items (Kline, 1986; Maltby, 2013).

6.3.4.1 Perceived Social Support from Friends (Procidano and Heller, 1983)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.720; Bartlett's Sphericity Test, $x^2 = 631.972$, df = 190, $p < .001$). For the number of factors, the eigenvalues and Scree plot tests showed that the scale included seven factors. The eigenvalues for each of the factors were 4.774 (factor 1), 2.935 (factor 2), 1.657 (factor 3), 1.441 (factor 4), 1.248 (factor 5), 1.151 (factor 6) and 1.074 (factor 7). The amount of variance accounted for by each factor was 23.871% (factor 1), 14.675% (factor 2), 8.283% (factor 3), 7.203% (factor 4), 6.240% (factor 5), 5.756% (factor 6) and 5.371% (factor 7).

Although the eigenvalues and Scree plot tests showed that the scale included seven factors, the parallel analysis produced only two factors. The parallel analysis thus indicated

that the first eigenvalue, 4.774, exceeded the first eigenvalue in the random dataset of 1.9983. Similarly, the second eigenvalue, 2.935, exceeded the second eigenvalue in the random dataset of 1.8128. However, the third eigenvalue, 1.657, failed to exceed the third eigenvalue in the random dataset of 1.6759.

The psychometric structure of the Perceived Social Support from Friends was largely consistent with the structure widely reported in the literature and with theory (Procidano and Heller, 1983). Therefore, for this scale we retained the two-factor solution. So, if we look at the rotated solution for the research data, we can see that factor 1 contains the items 11, 9, 3, 4, 19, 8, 1, 17, 14, 10, 5, 12 and 6, which are loadings between 0.425 and 0.797, while 18, 15, 2, 20, 16 and 7 load on factor 2, with loadings between 0.421 and 0.810. However, items 13 and 7 do not fit with the dataset, see appendix P. In conclusion, we would suggest that we have two factors on which different items load. The first factor contains 13 items, and can be referred to as 'unsatisfactory relationships', while the second factor consists of five items, which describe opposite qualities of 'satisfactory relationships'. Furthermore, the reliability of the Perceived Social Support from Friends version in this study was 0.701.

Table 6. 7 Discrimination between PSSF subscales before and after the EFA procedure

Initial - Perceived Social Support from Friends			Extraction Perceived Social Support from Friends (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Friends	20	1	Unsatisfactory relationships	13
			2	Satisfactory relationships	5
Total	1 subscale	20	Total	2 subscales	18

6.3.4.2 Perceived Social Support from Family (Procidano and Heller, 1983)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.631; Bartlett's Sphericity Test, x^2 = 546.257, df = 190, p < .001). For the number of factors, the eigenvalues and Scree plot tests showed that the scale included seven factors. The eigenvalues for each of the factors were 4.041 (factor 1), 2.418 (factor 2), 1.929 (factor 3), 1.532 (factor 4), 1.358 (factor 5), 1.249 (factor 6) and 1.032 (factor 7). The amount of variance accounted for by each factor was 20.205% (factor 1), 32.295% (factor 2), 41.942% (factor 3), 49.601% (factor 4), 56.392% (factor 5), 62.636% (factor 6) and 67.795% (factor 7). Although eigenvalues and Scree plot tests showed that the scale included seven factors, the parallel analysis produced only three factors.

So, if we look at the rotated solution for the dataset, we can see that items 22, 35, 39, 36, 40, 24 and 23 load on the first factor, and range between -0.301 and 0.773, while items 38, 32, 27, 37 and 25 load on the second factor and range between 0.424 and 7.27. Factor 3 contains items 33, 29, 28, 21 and 34, which load between 0.336 and 0.771. So, we would suggest that we have three factors on which different items load. However, items 30, 31 and 26 do not load on any factor, therefore it seems that these items do not fit with the dataset, see appendix Q t. Furthermore, the internal reliability of the PSSF questionnaire was 6.44, which is considered satisfactory. Therefore, we would suggest that we have three factors on which different items load.

The first subscale contains seven items describing negative relationships between children and their families, therefore we named this factor ‘unsatisfactory relationships’, while the second factor consists of five items of opposite ‘satisfactory relationships’. The third factor contains five items, which could be grouped as ‘supportive family’.

Table 6. 8 Discrimination between PFSS subscales before and after the EFA procedure

Initial - Perceived Social Support from Family			Extraction - Perceived Social Support from Family (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Family	20	1	Unsatisfactory relationships	7
			2	Satisfactory relationships	5
			3	Supportive family	5
Total	1 subscale	20	Total	3 subscales	17

Consequently, we would argue that the Perceived Social Support from Family measure contains three factors; unsatisfactory relationships, satisfactory relationships and supportive family. Three items (31, 26 and 30) could be extracted because their loadings on these factors were loadings lower than 0.3 (Kline, 1986; Maltby, 2013).

6.3.5 Coping Strategies Checklist - Revised (Ayers and Sandler, 1999)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.681; Bartlett's Sphericity Test, $x^2 = 4604.850$, df = 1431, $p < .001$). For the number of factors, K1 and Scree plot tests showed that the scale includes 14 factors. In contrast, parallel analysis produced only seven factors. However, only three factors could be extracted because their items loadings on these factors were lower than 0.3 and the criteria has been proposed that loadings lower than 0.3 should not be overlooked because they were considered to have poor loading, (Kline, 1986; Maltby, 2013).

Furthermore, the pattern matrix was re-examined for item cross-loadings and the number of items loading on each factor. So, if we look at the rotated solution for the data,

we can see that the Children's Coping Strategies Checklist-Revised has four factors; factor 1 contains 22 items, which range between .313 and .850; factor 2 consists of five items that range between .895 and .960; factor 3 consists of eight items that range between .630 and .904; and factor 4 contains three items that range between .817 and .900, see appendix R. Furthermore, the reliability of the Children's Coping Strategies Checklist-Revised was high, at .894. Therefore, we would suggest that we have four factors on which different items load. These four factors appear consistent with the original scale, and they could thus retain the original names, although their items were not identical.

Table 6. 9 Discrimination between subscales before and after the EFA procedure

Initial - Coping Strategies Checklist-Revised			Extraction - Coping Strategies Checklist-Revised (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Problem-solving	24	1	Problem-solving	22
2	Distracting	9	2	Distracting	3
3	Avoidance	12	3	Avoidance	5
4	Support-seeking	9	4	Support-seeking	8
Total	4 subscales	54	Total	4 subscales	38

In the next and final results chapter (Chapter 7), the same EFA process will be presented for the child-reported scales, albeit relatively briefly compared to this chapter.

Chapter 7

Children's Scales Construction and Exploratory Factor Analysis

7.1 Introduction

In a similar manner to the previous chapter on parents (Chapter 6), this chapter will focus on children-reported exploratory factor analysis (EFA) to better understand the nature of their measured constructs before informing the next stage of the analysis. As the key issues have already been discussed, only the key findings on EFA will be presented here.

7.2 Child-rated scales

7.2.1 Children's Impact of Events Scale (CRIES-8 - Horowitz et al., 1979)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.788; Bartlett's Sphericity Test, $x^2 = 667.973$, df = 28, $p < .001$. Two variables were identified as likely on the basis of the items of the eigenvalues and the Scree-plot initial investigation. However, the parallel analysis produced only a one-factor solution.

In the next step, the Oblique Rotations technique was used, as this is more appropriate when there are established relationships between factors based on the existing literature. So, if we look at the rotated solution, we can see that all the items load on a one-factor solution with a range between poor and satisfactory. As the original psychometric structure of the Children's Impact of Events Scale was underpinned by a two-factor structure (Horowitz et al., 1979), this result is not consistent with the early psychometric development. However, the reliability of this scale was high at 0.898. If we were to retain one factor for the CRIES-8, this could be defined as factor 1 of 'posttraumatic stress symptoms', i.e., without differentiating child psychopathology further based on the CRIES-8 subscales.

Table 7. 1 Discrimination between subscales before and after the EFA procedure

Initial IES (CRIES - Horowitz et al., 1979)			Extraction IES (EFA)		
N	Subscales	Items	N	Subscales	items
1	Intrusion	4	1	Post-traumatic stress	8
2	Avoidance	4			
Total	2 subscales	8 items	Total	1 subscale	8 items

7.2.2 Self-report version of Strengths and Difficulties Questionnaire (SDQ – Goodman, 1997 and 2001)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.679; Bartlett's Sphericity Test, x^2 = 1486.223, df = 300, p < .001. For the number of factors, the eigenvalues and Screen plot tests showed that the scale included nine factors. However, the parallel analysis produced only four. The parallel analysis indicated that the first eigenvalue, 5.785, exceeded the first eigenvalue of 2.0534. Similarly, the second eigenvalue, 2.925, exceeded the second eigenvalue of 1.8681. Also, the third and fourth eigenvalues exceeded the third and fourth eigenvalues in the random dataset. However, the fifth eigenvalue, 1.347, failed to exceed the fourth eigenvalue of 1.5215.

So, we could suggest that we include four factors on which different items load. The psychometric properties of the Strengths and Difficulties Questionnaire was originally consistent with a five-factor structure (emotional, conduct, hyperactivity, peer problems, and prosocial subscale), although Goodman (2001) stated that the five-factor structure received inconsistent support when tested via confirmatory factor analysis. Similarly, Percy et al. (2008) did not establish sufficient evidence in support of the five-factor structure. Subsequently, the SDQ developer himself argued that the SDQ did not seem to

have a ‘clean’ internal factor structure (Goodman, 2010). Furthermore, the pattern matrix was examined for item cross-loadings and the number of items loading on each factor. This distinction between the subscales could be a good way of explaining the data. The main difference was that the previous items describing potential hyperactivity symptoms loaded on different subscales. This could be explained by the overlap between symptoms (e.g., physical over activity and conduct or attachment or PTSD symptoms) or by cross-cultural variation in the expression of hyperactivity symptoms. From the exploratory factor analysis, we would suggest that the four-factor solution includes 23 items. Furthermore, the reliability of the self-report version of Strengths and Difficulties Questionnaire in this study was 0.780.

Table 7. 2 Discrimination between subscales before and after the EFA procedure

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Initial - Strengths and Difficulties Questionnaire			Extraction - Strengths and Difficulties Questionnaire (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Emotional	5	1	Emotional	5
2	Conduct	5	2	Conduct	5
3	Peer problems	5	3	Peer problems	7
4	Hyperactivity	5	4	Prosocial	6
5	Prosocial	5			
Total	5 subscales	25 items	Total	4 subscales	23 items

7.2.3 Gaza War Traumatic Event Checklist (Thabet and Thabet, 2016)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.664; Bartlett's Sphericity Test, $x^2 = 557.999$, df = 253, $p < .001$). For the number of factors, the

eigenvalues and Screen plot tests showed that the scale included eight factors. However, the parallel analysis produced two factors. Therefore, the results of the EFA suggest that the Gaza War Traumatic Event Checklist could contain two factors: factor 1, called 'personal experience', which consists of ten items; and factor 2, called 'witness', which consists of seven items. The reliability of the Gaza War Traumatic Event Checklist in this study was 0.780.

Table 7. 3 Discrimination between subscales before and after the EFA procedure

Initial - Gaza War Traumatic Event Checklist			Extraction - Gaza War Traumatic Event Checklist (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Personal experience	10	1	Personal experience	10
2	Witness	9	2	Witness	7
3	Hearing	4			
Total	3 subscales	23	Total	2 subscales	17

7.2.3.1 Perceived Social Support from Friends (Procidano and Heller, 1983)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.617; Bartlett's Sphericity Test, $x^2 = 2340.767$, df = 190, $p < .001$. For the number of factors, the eigenvalues and Screen plot tests showed that the scale includes six factors. However, the parallel analysis produced four factors. Therefore, the results of the EFA suggest that the Perceived Social Support from Friends contained four factors instead of one on the original scale. The first factor contains eight items that describe seeking peer support, while the second factor consists of five items related to confiding in peers. The third factor contains

three items on satisfactory relationships, while the fourth factor contains four items on unsatisfactory relationships. The reliability of the Perceived Social Support from Friends in this study was 0.842.

Table 7. 4 Discrimination between subscales before and after the EFA procedure

Initial - Perceived Social Support from Friends			Extraction - Perceived Social Support from Friends (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Support from friends	20	1	Seeking peer support	8
			2	Confiding	5
			3	Satisfactory relationships	3
			4	Unsatisfactory relationships	4
Total	1 subscale	20	Total	4 subscales	20

7.2.3.2 Perceived Social Support from Family (Procidano and Heller, 1983)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.561; Bartlett's Sphericity Test, $x^2 = 2346.088$, df =190, $p < .001$. The eigenvalues and Scree plot tests showed that the scale included five factors. Nevertheless, the parallel analysis produced four factors.

The first factor contains seven items describing positive relationships, while the second factor consists of six items related to a supportive family. The third factor contains four items that indicate unsatisfactory relationships, and the fourth factor includes three items that describe emotional support. The latter items were different from the broader factor 1 that included material and practical aspects of family support. The reliability of the Perceived Social Support from Family in this study was 0.752.

Table 7. 5 Discrimination between subscales before and after the EFA procedure

Initial - Perceived Social Support from Family			Extraction - Perceived Social Support from Family (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Support from family	20	1	Satisfactory relationships	7
			2	Unsatisfactory relationships	4
			3	Emotional support	6
			4	Practical support	3
Total	1 subscale	20	Total	4 Subscales	20

7.2.4 Children's Coping Strategies Checklist - Revised (Ayers and Sandler, 1999)

The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.507; Bartlett's Sphericity Test, $x^2 = 5311.815$, df = 1431, $p < .001$. The eigenvalues and Scree plot tests showed that the scale included a large number of 15 factors. However, the parallel analysis produced six factors. Furthermore, the reliability of the Children's Coping Strategies Checklist-Revised was 0.816, which is considered highly satisfactory.

Table 7. 6 Discrimination between scales before and after the EFA procedure

Initial - Children's Coping Strategies Checklist - Revised			Extraction - Children's Coping Strategies Checklist - Revised (EFA)		
N	Subscales	Items	N	Subscales	Items
1	Problem-solving	24	1	Problem-solving	9
2	Avoidance	12	2	Avoidance	8
3	Support-seeking	9	3	Support-seeking	10
4	Distraction	9	4	Distraction	3
			5	Cognitive strategies	10
			6	Reflection	3
Total	4 subscales	54	Total	6 subscales	43

7.3 Hypothesis-testing models with the EFA-extracted subscales as independent variables

Using EFA may result in different new constructs, or indeed the original constructs but with fewer items. In this study, the latter scenario was the case. It was thus necessary to verify whether the constructs resulting from using less items, which was the outcome of applying the EFA, could lead to similar regression findings for the constructs described in Chapters 4 and 5. The number of items retained by the EFA are presented in Table 7.7. The analysis only included factors showing significance in Sections 4.3.1, 4.4, 5.4.1 and 5.4.2. Multiple linear regression models were conducted for each of the dependent variables, i.e., PTSD and general mental health symptoms. War trauma scores were again entered as the independent variable, while child-rated problem-solving and parent-rated seeking support scores (previously established as significant variables in Chapters 4 and 5) were entered as covariates in the models.

Table 7. 7 Number of items retained by the EFA for children and parents

Constructs	No of items		Items retained by EFA	
	Subscales	Items	Subscales	Items
SDQ for children	5	25	4	23
CRIES for children	2	8	1	8
War trauma for children	3	23	2	17
Problem-solving for children	1	24	1	9
IES for parents	3	22	5	22
GHQ for parents	2	12	2	11
War Trauma for parents	3	23	4	21
Seeking support for parents	1	9	1	8

7.3.1 Parents

The first regression model was set up with total IES scores as the dependent variable, and with war trauma scores as the independent variable and seeking support scores as the covariate (Table 7.8). Using the ANOVA test, the model was found to be statistically significant (p-value < .001). Furthermore, it was able to explain 77.9% of the variation in the total IES scores. The influence of war trauma on IES was highly significant (p-value < .001). In addition, seeking support strategies could significantly reduce the impact on total IES scores (p-value < .001).

Table 7. 8 Regression model for total IES scores

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R-square
		B	Std. Error	Beta			
MODEL	(Constant)	1.032	.086		12.038	.000	.779
	War trauma b	1.389	.122	.658	11.417	.000	
	Seeking support b	-.191	.034	-.323	-5.607	.000	

R squared = .779, F(ANOVA) = 193.09 p-value < .001

A similar regression model was set up with total GHQ scores as the dependent variable (Table 7.9). The model was statistically significant (p-value < .001). Exposure to war trauma could explain 68.8% of the variation in total GHQ scores. Seeking support strategies could significantly moderate an adverse impact on total GHQ scores (p-value < .001).

Table 7. 9 Regression model for total GHQ scores

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R - square
		B	Std. Error	Beta			
MODEL	(Constant)	1.989	.038		52.657	.000	.688
	War trauma b	1.020	.114	.451	11.417	.000	
	Seeking support	-.547	.037	-.829	-14.701	.000	

R squared = .688, F(ANOVA) = 216.106 p-value < .001

7.3.2 Children

The first regression model included war trauma scores as the independent variable scores and problem-solving strategies as the covariate, with total SDQ scores as the dependent variable (Table 7.10). The model was statistically significant (p-value < .001), and could explain 32.7% of the variation in SDQ scores. The influence of war trauma on SDQ scores was highly significant (p-value < .000). Problem-solving strategies significantly contributed to the model (inverse relationship) (p-value < .000).

Table 7. 10 Regression model with EFA-extracted subscales, and total SDQ scores as dependent variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R - square
		B	Std. Error	Beta			
MODEL	(Constant)	1.237	.065		19.069	.000	.327
	War trauma for children	.562	.124	.383	4.534	.000	
	Problem-solving for children	-.167	.039	-.364	-4.308	.000	
R squared = .327, F(ANOVA) = 23.95 p-value < .001							

As with total SDQ scores, the model was also fit for CRIES total scores as the dependent variable. Using the same analysis, however, the second model did not show a significant effect (p-value = .130) and only explained 4% of the variation in the total CRIES scores.

Table 7. 11 Regression model for total CRIES scores

Model		Unstandardized Coefficients		Standardized Coefficients	t	p-value	R - square
		B	Std. Error	Beta			
MODEL	(Constant)	1.948	.217		8.959	.000	.041
	War trauma for children	.590	.416	.143	1.419	.159	
	Problem-solving for children	-.157	.130	-.122	-1.205	.231	

R squared = .041, F(ANOVA) = 2.086 p-value = .130

7.4 Summary

This section summarizes the key findings reported above in relation to the association between parent- and child-rated vulnerability factors and their respective mental health problems. These hypotheses were examined in detail in Chapters 4 and 5 using the subscales of the selected measures as originally developed, albeit with different populations of adults and children. For his reason, their subscales or the fundamental construction of items may have been affected by variations in the sociocultural context (Yildirim and Belen, 2018). Consequently, the veracity of the results was strengthened through reinvestigating the key models established in Chapters 4 and 5 using the revised subscales extracted from the EFA. Overall, these results were consistent with those obtained for the initial subscales. Nevertheless, EFA led to the use of fewer items than the analysis based on the originally constructed items and subscales. Therefore, this type of analysis, which took into consideration the potential context of the Libyan sample of parents and children, confirmed the earlier findings (Tables 7.12 and 7.13).

Table 7. 12 Key findings on parental variables

	Dependent	Significantly associated variables
1	**Total GHQ scores**	Parental war trauma exposure and seeking support.
2	**Total IES scores**	Parental war trauma exposure and seeking support

Table 7. 13 Key findings on children's variables

	Dependent	Significantly associated variables
1	**Total SDQ scores**	Children's war trauma exposure and children's problem solving

Chapter 8

Discussion

8.1 Introduction

It has been well established that war conflict has a seriously detrimental and potentially long-lasting effect on children's mental health, and that a number of risk factors and mechanisms are involved. However, despite this large body of evidence, not all children who are exposed to experiences of war and conflict will show symptoms of poor mental health. Different theories and their underpinning research, notably stemming from socioecological systems and positive psychology fields, are beginning to identify a range of individual and environmental factors which can mitigate the adverse effects of witnessing and experiencing brutality, as well as the subsequent disadvantage on children's mental wellbeing (Smokowski et al., 2016; Trentacosta et al., 2016). Such key factors, which have been identified by previous research with different populations, include coping strategies, family and peer supports. The roles of these factors in relation to different children's and parents' mental health problems were concurrently explored in this study, in the specific and not widely researched context of internally displaced children and their parents following exposure to civil war in Libya.

Overall, when considering risk or protection from the effects of war trauma, the majority of studies in this area have largely examined only a single or several factors, but have rarely considered these together or across the individual, family and social domains, as proposed by socioecological systems theory. The consequent gap in the existing literature is the motivation behind this study, which firstly investigated how the civil war in Libya impacted on the mental health of children and their parents, followed by the role of each of these factors, both individually as well as in conjunction, on children's mental health. In this chapter, the research hypotheses of this study will be revisited in relation to the findings, and these will be critically considered in the context of the literature. The

chapter will conclude with some remarks about the methodological and practice implications of the findings.

8.2 Overview of key findings

The first hypothesis was confirmed, namely that exposure to war traumatic events was associated with both children's and their parents' mental health and PTSD symptoms. The second hypothesis was partly supported in finding that the lack of certain coping strategies, namely seeking support and, to a lesser extent, problem solving, were independently associated with parental mental health problems; however, this did not apply to peer or family support. A different pattern was established in relation to child mental health problems, in that these were moderated by problem-solving strategies only. These child-focussed associations were not influenced by parental factors.

8.3 Discussion of key findings

The current study sought to understand the impact of exposure to war traumatic events on Libyan displaced children, and to investigate the role of coping strategies, and family and peer support, in moderating these adverse effects. Although there are some similarities in the design and replication of findings from the previous literature, this study also contributed to existing knowledge that focusses on internally displaced children and in examining concurrently the role of multi-level factors. The key findings will thus be discussed in relation to other research into war-affected and refugee children, especially in low- and middle-income countries (LMIC).

8.3.1 War trauma exposure and mental health of internally displaced children

The results of this study revealed that parents and children in Libya who had been subjected to traumatic war events continued to experience and report trauma even after they had moved to cities that were not directly affected by war. Such continuing trauma can be attributed to a range of issues, including the stress of ongoing conflict and the threat of further war events, as well as the fact that they had been displaced from their own homes and had lost their social networks of relatives and friends. These pre- and post-displacement factors can all prolong the period of trauma exposure, which is in turn an essential diagnostic criterion for PTSD in both the DSM-5 and ICD-10 classifications (see Table 1.1). Furthermore, the results were consistent with the findings of prior research; for example, key studies by Macksoud and Aber (1996), Paxton, et al. (2004), Dyregrov and Yule (2006), Dickstein et al. (2012), Miller and Jordans (2016), Shahar and Henrich (2016), Soysa and Azar (2016) and Hodes et al. (2017).

The wartime and subsequent experiences of parents have consequent adverse effects on their children, thus Libyan displaced children may suffer dual consequences from traumatic war experiences, i.e. both directly and indirectly, with the latter through their parents. Several studies concur with this interrelationship between emotional responses to collective war trauma exposure (Thabet et al., 2008) and subsequent displacement or migration (Bryant et al., 2018). This psychopathology model usually applies to PTSD, but not often to other forms of mental health problems where other pathways maybe involved with a more pronounced effect of current life adversities (Wolmer et al., 2000). According to this model, Libyan children are at high risk of developing mental health problems as a result of the negative impact that trauma exposure and parental ill mental health may have on parenting capacity, which can further result in reduced emotional support and additional boundaries being imposed on the child.

Evidence on different pathways to parental and child psychopathology stems from studies on comorbid PTSD and other mental health problems. Among others, for example, Thabet et al. (2004) suggest that depression and anxiety are influenced by current life events such as poverty and living in refugee camps, while PTSD symptoms are directly predicted by exposure to war trauma. There is, however, limited evidence as to whether there are also differences in the roles of protective factors. Accounting for methodological differences between previous studies such as their sociocultural context, other sampling characteristics, variables measured and instruments used, some important conclusions can be drawn. When children are exposed to war, they require intensive support to 'buffer' its immediate impacts and to reduce the prospect of enduring disruption or damage in their future lives. Therefore, the first explanation for the chronic mental health problems seen amongst Libyan children might be related to the recurrent retraumatization following displacement due to the ongoing civil war. A number of studies have shown that individuals who previously experienced trauma such as displacement, and being refugees and survivors of war, are more likely to be exposed to further or secondary adverse circumstances, which compound their mental wellbeing (Dyregrov and Yule, 2006; Hizli et al., 2009; Foster and Brooks-Gunn, 2015).

An additional reason could be related to the uncertainty facing displaced Libyan children and their parents could be related to whether they will ever see their homes and friends again, which prevents them from rebuilding their lives in their host communities. Furthermore, some of these children may have parents who are not sufficiently emotionally strong to deal with these stressors, as they themselves suffer from mental health problems. How families are equipped to cope with ongoing life events is thus particularly important in this context.

8.3.3 The role of coping strategies

The second hypothesis under consideration contended that the effects of war conflict-induced trauma on parents and their children may be ameliorated by a range of coping strategies. The findings indicate that lower problem-solving strategies were significantly associated with PTSD and other mental health problems amongst children, while their parents' mental health was more affected by a lack of support-seeking strategies. These findings are largely consistent with those in the literature (Braun-Lewensohn et al., 2015; Khamis, 2015; Soysa and Azar, 2016).

In an early study, Kocijan-Hercigonja et al. (1998) established an inverse relationship between depressive or anxiety problems in displaced parents and support seeking. Furthermore, Lazarus and Folkman (1986) concluded that the most effective strategies altered the relationship between the individual and their environment. Accessing social support can further enhance personal resources such as self-esteem (Dickstein et al., 2012). In this study, a possible reason behind the significant role of support-seeking strategies might be related to the nature of Libyan social networks. This, in particular, may apply to parents displaced to cities where they have relatives who can help them overcome or at least ameliorate their adverse circumstances. The interaction between war trauma and seeking support made an additional contribution to the model of factors moderating the impact of war trauma on mental health. This interaction between war trauma and seeking support may indicate that, when parents were faced with substantive war exposure they tried to cope with this situation by seeking social supports well above what they may have used during peace.

An alternative explanation related to seeking social support is that in contrast with the immediate impact of war trauma and the forced move from their communities, families who have been displaced for lengthy periods learn over time which methods are more

effective in maximizing the effects of social support and other sources of help. For instance, different studies have shown that individuals exposed to chronic and recurrent trauma are more likely to utilize more adaptive techniques than those exposed to recent acute trauma (Aldwin, 2011). Moreover, it might be inferred that parental coping strategies are dynamically linked to children's perceptions of their own coping processes. Displaced Libyan children employed problem-solving strategies to moderate the adverse effects of exposure to war traumatic events, while their parents used support-seeking strategies, both of which have been classified as behavioural coping responses (Lazarus and Folkman, 1984; Ayers, 1992).

The association between children's problem-solving coping strategies and decreased mental health, in particular in association with PTSD-type symptoms, has been established in a number of studies (Kocijan-Hercigonja et al., 1998; Dickstein et al., 2012; Khamis, 2015; Undheim et al., 2016; Soysa and Azar, 2016). Whilst there is by no means consensus amongst researchers in this regard, there does nevertheless appear to be a general association between positive mental health outcomes for children and particular coping strategies. A distinction was made by Lazarus and Folkman (1986) between the broad categories of problem- and emotion-focussed coping strategies. The former operate by containing or changing environmental stressors, for example by seeking practical solutions or support from family and friends, whilst the latter aim to manage the individual's emotional reactions to an event by adjusting their interpretation of its threat and/or emotional significance. Furthermore, one consistent finding throughout the existing body of research is that problem-focussed copying strategies yield more positive outcomes, whereas emotion-focussed strategies may have a negative impact on children's mental health. Khamis (2015), Undheim et al. (2016) and Soysa and Azar (2016) all noted that

problem-solving strategies can all strengthen children's mental resilience in the face of adversity.

The current study found that displaced Libyan children typically utilized problem-solving methods, while their parents used support-seeking strategies, which allowed both groups to function well despite the high prevalence of traumatic events. One conceivable reason might be the function of cultural factors. Some studies have pointed to cross-cultural differences to problem solving in order to cope with stressors (Qiu and Li, 2008). Their use in facing stressors might be particularly prominent within, and shared across Middle Eastern countries. Individuals within these cultures are more likely to minimize negative consequences and prefer not to disclose or discuss any ongoing distress because of fear of being stigmatized or perceived as being weak (Kim et al., 2008). It is also possible that a positive pathway between children's problem-solving strategies and their mental wellbeing reflects their previous experiences of, and satisfaction with the successful use of problem-solving strategies, which thus act as reinforcers.

The overall findings may be taken as an indication that interventions that focus on coping strategies, and which address specific challenges or behaviours arising from war atrocities and subsequent displacement, have a greater likelihood of producing an adaptive response than emotion-focussed or interpersonal coping strategies, at least during the first stage of displacement.

8.3.4 Social support and displaced families' mental health

The current study found no significant association between perceived social support from family and friends and either parents' or children's mental health. Although Libyan parents were found to be dependent on support-seeking coping strategies to adaptively

respond to war trauma and displacement, receiving social support from family and friends did not appear to make any contribution to the model. It is thus important to understand the differences between the two constructs of social support and support-seeking strategies, and how these might be accessed and used by families in similar contexts.

Although only a few previous studies have explored the different functions of social support and support-seeking coping strategies in relation to mental health problems (Yasin and Dzulkifli, 2010; Vildósola et al., 2012), social support alludes to the experience of being esteemed, regarded and cherished by other people available within one's life (Cheng, 1997). Such experiences can be drawn from various sources such as family, companions, educators, networks or social gatherings. Therefore, social support is considered as consisting of external resources which help people to moderate the adverse impacts of war exposure. In contrast, support-seeking coping strategies are conductible or internal mechanisms that moderate or reduce the impact of stressors (Vildósola et al., 2012). For example, when children were seeking support, this could be considered as an internal resource; in contrast, actually receiving social support from family or friends could be construed as external resources. In this study, Libyan parents did not perceive social support (external factors) from family or friends as being helpful, but rather relied more on support-seeking strategies (internal mechanisms) in terms of their abilities to adjustment to the effects of war trauma, displacement and their new host communities.

The first possible explanation for not accessing social support from family and friends might be because they had moved from Benghazi to neighbouring cities (Al-Beda and Al-Marj), which may result in the sudden loss of their 'normal' social support resources. For example, compulsive movements not only lead to material waste, but also result in the absence of the friends and relatives that are an important source of perceived social support for parents and their children, especially during periods of war. An additional

reason might be that the displaced families came from what is a rather cosmopolitan and vibrant city, Benghazi, which as a city is representative of all the various spectra of Libyan society. Consequently, they may have found it particularly difficult to adapt to their new cities (Al-Bayda and Al-Marj) which rely more on tribal and customary systems, rather than law and organized systems, in the course of daily life. They may thus not have been familiar with the rules or traditions of these new cultures, where these difficulties in adjustment may persist for several years and hinder reintegration. In other words, the sociocultural conflict between what are a multi-cultural and a traditional environment may have had lasting socioeconomic and psychological impacts. Moreover, it appears likely that such was the severity of the Libyan war trauma that perceived social support from parents or friends alone would have been insufficient. For example, it has been found by Murdaca (2008) that social support is only effective in scenarios where the associated stress is not acute.

In turn, the vulnerability of displaced Libyan parents and the manifestation of significant levels of mental frailty amongst them have the potential to compromise the parent-child relationship. Furthermore, both the traumatic events in Libya and the requirement to adjust to a new and potentially distressing life situation (unemployment, poor housing and uncertainty about the future) may preoccupy parents to the extent that they become emotionally inaccessible to their children. For example, research conducted in South America by Bokszczanin (2008) identified a clear link between conflict, family trauma and parental mental health issues. This suggests that supportive family relationships offer no protection to children in situations where parents have also been exposed to the trauma generated by war, which may be due to the disruption caused to families and communities by ongoing conflict. An alternative explanation could be that this is the result of family discord, which is a recognized factor in accentuating mental health problems

within families. However, this factor was not specifically assessed in the course of this study.

As alluded to above, the consequences of war conflict and displacement can impact upon parenting practices and the standards of care and support that parents are able to provide (Lambert et al., 2014; Hecker et al., 2015). Children are more likely to be affected if their parents experience adjustment difficulties and are thus less capable of offering comfort, nurturing and boundaries (Silverman and Greca, 2002; van Loon et al., 2014). Yet another possibility for such diminished parental support is that the very vagaries of the Libyan conflict mean that parents lack the opportunity to interact with their offspring. For instance, displaced parents do not have enough time to stay or play with their children while seeking employment opportunities within their host communities without the concurrent social integration and its buffering opportunities with regard to support.

The latter observation may explain the lack of any apparent significant protective role of friendship and other peer support, in contrast with the formulated hypothesis. Despite the extensive coverage of peer support in child development research, little attention has thus far been devoted to its role in the mediation of mental health problems arising from exposure to organized violence (Salzinger et al., 2002). There are conflicting findings in the literature regarding the relationship between perceived peer support and child mental health problems.

Whilst some studies have claimed that there are no links between the two variables (DuBois et al., 2002; Paxton et al., 2004; Shahar et al., 2016), other researchers claim to have established an inverse association (Rudolph et al., 1995; Lewis et al., 1999; Gordon and Ladd, 2005; Banks and Weems, 2014; Smokowski et al., 2016). For example, Banks and Weems (2014) determined that perceived peer support can indeed ameliorate the

impact of exposure to conflict. Lewis et al. (1999) and Gordon and Ladd (2005) also concurred that perceived support from friends moderated the impact of exposure to conflict with regard to the development of PTSD symptoms. Interestingly, Paxton et al. (2004) offered a contextual explanation to these conflicting findings, although they found that the function of perceived social support as a moderator between trauma and mental health problems in African-American adolescent males was negligible. The authors proposed that this lack of association might be explained by the particular characteristics and life circumstances of their sample, as young people were continuously exposed to traumatic events in their community. Smokowski et al. (2016) found that increased levels of social support from family or friends following exposure to violence actually increased the preponderance of violent conduct. According to these authors, in the context of their study, social networks could bolster the link between community violence and child psychopathology by exposing children to further risk factors (retraumatization).

Inconsistencies between the above findings may also be accounted for by equivalent variations in the definitions and measurement of social support, which is a complex construct. In addition, the extreme nature of the exposure to trauma to which these children and parents have been subjected to can be reinforced by the very fact of access to limited social support. Murdaca (2008) found that social support is only adaptive in situations where the stressors are not intense. As a result of displaced Libyan children moving to safer localities, albeit without integrating into their new communities, they may suffer from both loss of previous friendships and difficulties in making new ones within their new schools and communities. While there are a large number of facilities that offer sports, social and creative activities in Benghazi, and where children have the opportunity to build and sustain friendships with their peers, these resources and social opportunities are largely lacking in Al-Bayda and Al-Marj. This deprives displaced children of the

opportunity to mix with children from their host communities, and thus integrate and develop new sociocultural identities.

Overall, as already discussed, most risk factors are interlinked, with parental factors, predominantly parenting capacity, being central to a vulnerability model.

8.3.5 Parental factors and displaced children's mental health

The final hypothesis offered by this study was that parental factors would make an additional contribution to the child mental health model. This hypothesis was not confirmed by the findings. When parental and child-related factors were jointly considered, problem-solving coping strategies remained the most important protective factor amongst children. However, it should be acknowledged that parental factors were not assessed or measured in any particular depth (for example, the role of the parent-child attachment relationship) because of the already large number of instruments completed by the participating families.

In the related literature, parents are regarded as being the most important 'protective' factor in adverse situations (Smith, 2001; Kilmer and Rivas, 2010; Khamis, 2015; Hastings, and Griffith, 2018). The mechanisms involved have been related to the disruptive nature of warfare, wherein jobs, homes and family members are variously lost. Another possible explanation could be that if parents find themselves absorbed by their own trauma, this increased mental 'brittleness' and the concomitant manifestation of psychological stress can contribute significantly to the impairment of their parenting skills. Williamson et al. (2017) reported that parents may sometimes find themselves ill-equipped to manage symptom of stress in their children, due to the fear of exacerbating them further. In turn, if children judge that their parents are coping well, this may prevent their own symptoms from increasing exponentially (Silverman and La Greca, 2002). This raises

questions regarding parents' capacities to ensure safe physical and emotional environments for their children, both during the conflict itself and, further, the post-war phase.

If parenting capacity is further eroded, children have no external sources of protection and may consequently turn inwards by increasingly relying on their own coping resources which may be either adaptive, such as the problem-solving considered in this study, or maladaptive, such as deliberate self-harm or aggression which often appear in conjunction (Murdaca, 2008; Williamson et al., 2017). The literature suggests that, in similar contexts, problem-focussed coping strategies are often the main counter-balancing protective factors, which include changing life circumstances by taking action, generating solutions, and seeking information. For instance, Braun-Lewensohn et al. (2015) studied 913 Israeli children aged between 12 and 18 years. They found that problem-solving strategies were commonly used to effect, and were associated with, child adjustment. Children who are confident in their abilities often regard stressful situations as challenges rather than as threats, and are thus more likely to experience positive outcomes (Compas et al., 2001). In contrast, children lacking suitable coping skills, as well as the capacity to evaluate their skills in terms of addressing complex situations, are at higher risk of developing mental health problems.

8.4. Methodological implications

8.4.1 Limitations

A key limitation to this research was the use of a single time-point for data collection. It was thus possible to identify associations rather than moderating factors, such as might be achieved through longitudinal data. Furthermore, it was not possible to establish any information about possible causes and effects through such a cross-sectional design. Cole

and Maxwell (2003), for example, suggest how the determination of effects can be achieved by using a longitudinal design. They recommend testing the predictor, mediator and defined outcomes by measuring them over three separate points in time, thereby permitting the identification of any more complex mechanisms that might be involved. However, whilst causes and effects could not be examined in this study, this was an important baseline in developing a model based on evidence drawn from both theoretical and empirical sources.

Furthermore, having considered the theoretical assumptions on power calculation, an estimated sample of 100 children and equivalent parents was achieved. However, as previously mentioned with regard to the sample size, a larger sample would have enabled a more in-depth analysis of the relationships between variables, as well as their interactions. The sample was also partly constrained by pragmatic factors in terms of recruiting hard-to-reach displaced families who fulfilled the selection criteria (also see Chapter 3 on sample size). Although the participants were homogenous in certain regards, including age and economic status, these are not necessarily representative of all displaced families in Libya, or indeed in other contexts of civil conflict.

This study adopted a quantitative approach to addressing its research aims. Using semi-structured interviews in a mixed methods design would have provided a deeper understanding of the quantitative findings; for example, the reasons behind the inability to establish a protective function for social support, or parents' explanations for the difference between support seeking and actual support networks. Such knowledge would be helpful in designing and improving appropriate interventions and services.

The measurement of mental health symptoms was based on questionnaires rather than on structured diagnostic interviews which, whilst detailed, are also time consuming and costly. Including different informants, such as teachers, would have corroborated the

information collected (de los Reyes et al., 2015). The study sought to measure similar constructs for parents and children, insofar as this was developmentally possible. However, not all instruments could be mirrored across the two groups. Although the GHQ and SDQ capture common mental health problems in parents and children, these were developed for different types of psychopathology across the age span. In contrast, the Children Impact Events Scale (CRIES-8) was adapted from the adult Impacts of Events Scale-Revised (IES-R) (Weisss and Marmar, 1997; Horowitz et al., 1979). Parents did not complete measures on their child's mental health (e.g., SDQ) or indeed other aspects of their functioning because a large battery for this vulnerable and difficult to engage group had already been used. Furthermore, the self-report of SDQ was developed for children and young people aged between 11 and 16 years old. Although a number of studies have also shown that it can be used reliably with children as young as nine years old, further psychometric evaluation is required for this younger age group, because of their less develop cognitive capacity. Another limitation is that, when we subjected the CRIES-8 (PTSD symptoms) to exploratory factor analysis, the internal reliability of the revised items ranged between poor and satisfactory. This may have influence the results, i.e. in not establishing significant association between war trauma and PTSD symptoms in some analyses. Additionally, as already acknowledged, this short questionnaire do not has include questions on the period, frequency and functional impairments resulting from PTSD symptoms.

Whilst this study considered the effects of perceived family support, it did not examine the role of specific factors such as parenting style, attachment or family violence, all of which are well-established risk factors in terms of the development of child mental health problems. This study did not measure parental demographic variables such family income, age or gender, as parents were included as part of the study construction, with the

focus remaining on children. An additional constraint was the lack of a control group of non-displaced families from the host communities with similar sociodemographic profiles.

8.6 Implications for future research

Despite these limitations, the study has several strengths in the context of the limited evidence on the mental health of internally displaced children and the concurrent exploration of the role of potential protective factors across socioecological systems. Therefore, the findings provide a useful platform for further studies in this field, and could help address the gaps acknowledged in the previous section, such as adopting a longitudinal design, ideally from the time at which the families moved into their new locality, i.e., following acute trauma exposure; such a design could disentangle the effects of war trauma and displacement. The use of a community control group could help identify important differences in accessing social networks and services, and thus help to integrate displaced families into their new communities. Exploring the perspectives of families from both groups, as well as other stakeholders such as community and religious leaders, policy makers and practitioners, would provide valuable information on addressing societal and service barriers. The more detailed study of parental (parenting skills, attachment, family conflict, parental demographic variables and community factors (school attainment, help-seeking, support networks, neighbourhood safety) would also enable services to target specific vulnerability factors and their associated barriers. As all questionnaires were tested according to their total scores (Aroian et al., 2010), future research could enhance our understanding on more specific constructs by including their subscales in more detailed evaluation. Cross-cultural research with families in other civil war conflict contexts would lead to generalizable and transferrable findings for international organizations.

8.7 Policy, service, practice and training implications

The findings confirmed the negative effects of civil war and resulting displacement on Libyan children's mental health. Indeed, considering the rates of mental health problems identified, the associated numbers of affected children and their parents are cause for significant alarm. The 'negative' finding of not establishing a protective role of social supports is an additional concern, as this indicates a lack of integration of displaced families into their new communities. Overall, the findings call for a concerted effort in terms of preventive and responsive actions. Drawing from the current body of literature on interventions and services available for war-affected and refugee children, such a strategy should involve co-ordination between national and local government departments, agencies on the ground, and communities; it should also tackle families' complex needs at all levels of the socioecological systems framework (Eruyar et al., 2018; Hodes and Vostanis, 2019).

A number of studies have demonstrated the effectiveness of psychosocial interventions in hastening and sustaining children's recovery from mental health problems following war trauma exposure (Jordans et al., 2010). Emerging findings also highlight the importance of contextualizing interventions in terms of local cultural needs by involving communities in their development and delivery so they are able to overcome stigmatizing attitudes towards poor mental health in ways that are culturally appropriate and acceptable (Getanda et al., 2017). The well-established lack of adequate specialist mental health professionals and services, especially in Libya (Arie, 2011; UNHCR, 2018), has implications for training existing staff as well as maximizing community strengths through the establishment of first-response interventions, as delivered by community volunteers or paraprofessionals (Fuhr et al., 2014; Hodes and Vostanis, 2019). These could build on the finding of this

study about the protective role of problem-solving coping strategies by strengthening children's resilience within schools and communities, both through psychological interventions and social activities, for example, through sports and creative modalities.

The Libyan, and indeed other governments in similar situations should revise or develop mental health policies for both adults and children. These should be connected to other policies related to human rights, child protection, welfare, education and physical health (Skokauskas et al., 2019). A direct result of these policies would be the establishment and improvement of community- and hospital-based mental health services that can be made accessible to the Libyan population as a whole, especially to displaced families in transition, and the improved quality of mental health care through ongoing training of staff working in mental health institutions. Moreover, there should be a close relationship between adult and child mental services, which tend to be fragmented globally even in the absence of collective conflict (Singh, 2009). There also needs to be legal, financial and social support for displaced families to increase housing and employment opportunities, as well help to integrate into their host communities.

As already stated, displaced children's and families' complex mental health needs are best served through a multi-modal provision model that involves health, social care and education services; this is particularly important for countries with limited specialist mental health resources (Vostanis, 2017). Although such programmes need to address both the impact of war and current psychosocial stressors, professionals and volunteers should preferably adopt a trauma-informed approach (Weine et al., 2003 and 2008). Multi-family support groups may be important components, as these have successfully been applied to refugee families in concurrently tackling sociocultural integration, practical support and mental health difficulties (Slobodin and de Jong, 2015). Promoting positive parenting skills could either be integral to these groups or be provided separately, albeit in an engaging and

culturally acceptable manner. Further, as noted by Ellis et al. (2010), establishing joint care pathways between schools, social care, health agencies, as well as with religious and community groups can enhance awareness, engagement, and access. Interdisciplinary training could be provided along with service initiatives for frontline professionals, carers, and volunteers to improve the recognition of mental health problems amongst displaced children, as well in the generation of integrated and holistic care plans.

8.7 Conclusions

This study adds to existing knowledge regarding the strong association between exposure to war trauma and subsequent displacement with mental health problems among children and their parents, and on the protective role of different factors. Informed by the socioecological systems framework, the selected factors reflected different levels (child, family and community). Support-seeking strategies were found to moderate any impacts on parents' mental health, while problem-solving strategies had a significant adaptive function for children. In contrast, existing family and social support were not shown to protect families.

These findings suggest that the detection of parent and child mental health problems, and the provision of needs-led interventions and services, should be improved at the international, national and local levels. These should be supported by policy and legislation, have both a preventive and responsive focus, enhance families' integration into their new communities, co-ordinate the agencies in contact with families, actively involve communities, and further enhance the skills of professionals and community volunteers.

References

Abraham, M. M., and Kerns, K. A. (2013). Positive and negative emotions and coping as mediators of mother-child attachment and peer relationships. *Merrill-Palmer Quarterly, 59*(4), 399-425.

Aguado, J., Campbell, A., Ascaso, C., Navarro, P., Garcia-Esteve, L., and Luciano, J. V. (2012). Examining the factor structure and discriminant validity of the 12-item general health questionnaire (GHQ-12) among Spanish postpartum women. *Assessment, 19*(4), 517-525.

Ahmed, M. A., Mona, A., Ahmed, D. (2018). Coping strategies among children with thalassemia. *IOSR Journal of Nursing and Health Science, 7*(2), 58.

Ainsworth, M. D. S., and Bell, S. M. (1970). Attachment, exploration, and separation: Individual differences in strange-situation behaviour of one-year-olds. *Child Development, 41*, 49-67.

Ainsworth, M. D. S., Blehar, M. C., Waters, E., and Wall, S. N. (2015). Patterns of Attachment: A Psychological Study of the Strange Situation. *Psychology Press*.

Ajdukovic, M., and Dean, A. (1998). Impact of displacement on the psychological well-being of refugee children. *International Review of Psychiatry, 10*(3), 186-195.

Allen, J. P., Porter, M., McFarland, C., McElhaney, K. B., and Marsh, P. (2007). The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. *Child Development, 78*(4), 1222-1239.

Almqvist, K., and Broberg, A. G. (1999). Mental health and social adjustment in young refugee children tree years after their arrival in Sweden. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*(6), 723-730.

Al-Nader, M. (2014, May 30). The psychological effects of war on children in Syria. *The Syrian Observer*. Available at: https://syrianobserver.com/EN/category/features/page/3[accessed 15 July 2019].

Alsayed, A., and Wildes, V. J. (2018). Syrian refugee children: A study of strengths and difficulties. *Journal of Human Rights and Social Work, 3*(2), 81-88.

AlShawi, A. F., and Lafta, R. K. (2015). Relation between childhood experiences and adults' self-esteem: A sample from Baghdad. *Qatar Medical Journal, 14*(2), 82-91.

Alyahri, A., and Goodman, R. (2006). Validation of the Arabic strengths and difficulties questionnaire and the development and well-being assessment. *Eastern Mediterranean Health Journal, 12*(2), 138-146.

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders (DSM-5).* American Psychiatric Association. US: Frisco Centre.

Ancharoff, M. R., Munroe, J. F., and Fisher, L. M. (1998). The legacy of combat trauma: clinical implications of intergenerational transmission. In Y. Danieli (Ed.), *International Handbook of Multigenerational Legacies of Trauma* (pp. 257-275). New York: Plenum Press.

Anda, R. F., Croft, J. B., Felitti, V. J., Nordenberg, D., Giles, W. H., Williamson, D. F., and Giovino, G. A. (1999). Adverse childhood experiences and smoking during adolescence and adulthood. *Jama, 282*(17), 1652-1658.

Andrews, G., Slade, T., and Peters, L. (1999). Classification in psychiatry: ICD–10 versus DSM–IV. *The British Journal of Psychiatry, 174*(1), 3-5.

Angel, B., Hjern, A., and Ingleby, D. (2001). Effects of war and organized violence on children: A study of Bosnian refugees in Sweden. *American Journal of Orthopsychiatry, 71*(1), 4-15.

Arie, S. (2011). Agencies prepare to deal with mental health problems in Libya after 42 years of repression. *British Medical Journal*.*Vol.343*

Aroian, K., Templin, T. N., and Ramaswamy, V. (2010). Adaptation and psychometric evaluation of the multidimensional scale of perceived social support for Arab immigrant women. *Health Care for Women International, 31*(2), 153-169.

Atkin, K., and Ahmad, W. I. (2000). Family care-giving and chronic illness: How parents cope with a child with a sickle cell disorder or thalassaemia. *Health and Social Care in the Community, 8*(1), 57-69.

Attanayake, V., McKay, R., Joffres, M., Singh, S., Burkle Jr, F., and 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.

Ayers, T. A., and Sandler, I. N. (1999, September). Manual for the Children's Coping Strategies Checklist and How I Coped Under Pressure Scale. Retrieved April 12, 2018, from http://www.asu.edu/clas/asuprc/.

Ayers, T. S., Sandier, I. N., West, S. G., and Roosa, M. W. (1996). A dispositional and situational assessment of children's coping: Testing alternative models of coping. *Journal of Personality, 64*(4), 923-958.

Bahy, M.,Mohmodand and Azaldain Hsnay. (2002). *Theory and Practice of Factor Analysis* (1st Ed.).Egypt, Cairo: centre of book.

Bandura, A., and Walters, R. H. (1963). *Social Learning and Personality Development.* New York: Holt Rinehart and Winston.

Banks, D. M., and Weems, C. F. (2014). Family and peer social support and their links to psychological distress among hurricane-exposed minority youth. *American Journal of Orthopsychiatry, 84*(4), 341.

Banneyer, K. N., Koenig, S. A., Wang, L. A., and Stark, K. D. (2017). A review of the effects of parental PTSD: A focus on military children. *Couple and Family Psychology: Research and Practice, 6*(4), 274.

Barber, B. K. (2008). *Adolescents and War: How Youth Deal With Political Violence*. New York: Oxford University Press.

Bastin, P., Bastard, M., Rossel, L., Melgar, P., Jones, A., and Antierens, A. (2013). Description and predictive factors of individual outcomes in a refugee camp based mental health intervention (Beirut, Lebanon). *PLoS One, 8*(1), e54107.

Baumeister, R. F., Campbell, J. D., Krueger, J. I., and Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest, 4*(1), 1-44.

Baumeister, R. F., Smart, L., and Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review, 103*(1), 5.

Bean, T. M., Eurelings-Bontekoe, E., and Spinhoven, P. (2007). Course and predictors of mental health of unaccompanied refugee minors in the Netherlands: One year follow-up. *Social Science and Medicine, 64*(6), 1204-1215.

Beck, A. T., Steer, R. A., and Brown, G. K. (1996). Beck depression inventory-II. *San Antonio, 78*(2), 490-498.

Bell, C. C., and Jenkins, E. J. (1993). Community violence and children on Chicago's Southside. *Psychiatry, 56*(1), 46-54.

Benjet, C. (2010). Childhood adversities of populations living in low-income countries: Prevalence, characteristics, and mental health consequences. *Current Opinion in Psychiatry, 23*(4), 356-362.

Bentley, J. A., Thoburn, J. W., Stewart, D. G., and Boynton, L. D. (2011). The indirect effect of somatic complaints on report of posttraumatic psychological symptomatology among Somali refugees. *Journal of Traumatic Stress, 24*(4), 479-482.

Berman, S. L., Kurtines, W. M., Silverman, W. K., and Serafini, L. T. (1996). The impact of exposure to crime and violence on urban youth. *American Journal of Orthopsychiatry, 66*(3), 329.

Berthold, S. M. (2000). War traumas and community violence: Psychological, Behavioral, and academic outcomes among Khmer refugee adolescents. *Journal of Multicultural Social Work, 8*(1-2), 15-46.

Betancourt, T. S., Newnham, E. A., Layne, C. M., Kim, S., Steinberg, A. M., Ellis, H., and Birman, D. (2012). Trauma history and psychopathology in war-affected refugee

children referred for trauma-related mental health services in the United States. *Journal of Traumatic Stress, 25*(6), 682-690.

Billings, A. G., and Moos, R. H. (1981). The role of coping responses and social resources in attenuating the stress of life events. *Journal of Behavioral Medicine, 4*(2), 139-157.

Birleson, P. (1981). The validity of depressive disorder in childhood and the development of a self-rating scale: A research report. *Journal of Child Psychology and Psychiatry, 22*(1), 73-88.

Bøe, T., Hysing, M., Skogen, J. C., and Breivik, K. (2016). The strengths and difficulties questionnaire (SDQ): Factor structure and gender equivalence in Norwegian adolescents. *PloS One, 11*(5), e0152202.

Bøe, T., Øverland, S., Lundervold, A. J., and Hysing, M. (2012). Socioeconomic status and children's mental health: Results from the Bergen child study. *Social Psychiatry and Psychiatric Epidemiology, 47*(10), 1557-1566.

Bogic, M., Njoku, A., and Priebe, S. (2015). Long-term mental health of war-refugees: A systematic literature review. *BMC International Health and Human Rights, 15*(1), 29.

Bokszczanin, A. (2008). Parental support, family conflict, and overprotectiveness: Predicting PTSD symptom levels of adolescents 28 months after a natural disaster. *Anxiety, Stress, and Coping, 21*(4), 325-335.

Bonanno, G. A., Brewin, C. R., Kaniasty, K., and Greca, A. M. L. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest, 11*(1), 1-49.

Bonanno, G. A., Galea, S., Bucciarelli, A., and Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology, 75*(5), 671.

Bonanno, G. A., Westphal, M., and Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology, 7*, 511-535.

Bowlby, J. (1973). Attachment and Loss: Volume II: Separation, Anxiety and Anger. *Attachment and loss: Volume II: Separation, anxiety and anger* (pp. 1-429) London: The Hogarth Press and the Institute of Psycho-Analysis.

Braun-Lewensohn, O. (2015). Coping and social support in children exposed to mass trauma. *Current Psychiatry Reports, 17*(6), 1-10.

Braun-Lewensohn, O., Abu-Kaf, S., and Sagy, S. (2015). Attitudes toward war and peace and their relations with anxiety reactions among adolescents living in a conflictual area. *Journal of Youth Studies, 18*(1), 68-79.

Bredenoord, A. L., Clevers, H., and Knoblich, J. A. (2017). Human tissues in a dish: The research and ethical implications of organoid technology. *Science, 355*(6322), eaaf9414.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. *American Psychologist, 32*, 513-531.

Bronfenbrenner, U. (2005). *Making Human Beings Human: Bioecological Perspectives on Human Development.* London and New Delhi: Sage-London.

Brumariu, L. E., and Kerns, K. A. (2010). Parent–child attachment and internalizing symptoms in childhood and adolescence: A review of empirical findings and future directions. *Development and Psychopathology, 22*(1), 177-203.

Brumariu, L. E., and Kerns, K. A. (2010). Parent–child attachment and internalizing symptoms in childhood and adolescence: A review of empirical findings and future directions. *Development and psychopathology, 22*(1), 177-203.

Buss, A. H. (1991). *The EAS Theory of Temperament.* In Jan Strelau and Alois Angleitner. (Eds), *In Explorations in Temperament* (PP. 43-60). London: Plenum.

Buss, A. H., and Plomin, R. (1975). *A temperament Theory of Personality Development.* New York: Wiley.

Butcher, F., Galanek, J. D., Kretschmar, J. M., and Flannery, D. J. (2015). The impact of neighbourhood disorganization on neighbourhood exposure to violence, trauma symptoms, and social relationships among at- risk youth. *Social Science and Medicine, 146*, 300-306.

Carlson, E. A. (1998). A prospective longitudinal study of attachment disorganization/disorientation. *Child Development, 69*(4), 1107-28.

Carlson, E. A., Egeland, B., and Sroufe, L. A. (2009). A prospective investigation of the development of borderline personality symptoms. *Development and Psychopathology, 21*(4), 1311-1334.

Carver, C. S. (1997). You want to measure coping but your protocol 'too long: Consider the brief cope. *International Journal of Behavioral Medicine, 4*(1), 92-100.

Cater, Å, and Øverlien, C. (2014). Children exposed to domestic violence: A discussion about research ethics and researchers' responsibilities. *Nordic Social Work Research, 4*(1), 67-79.

Çelik, N., and Özpınar, S. (2017). Children and health effects of war being a war child. *Cumhuriyet Medical Journal, 39*(4)

Charlson, F. J., Steel, Z., Degenhardt, L., Chey, T., Silove, D., Marnane, C., and Whiteford, H. A. (2012). Predicting the impact of the 2011 conflict in Libya on population mental health: PTSD and depression prevalence and mental health service requirements. *PLoS One, 7*(7), e40593.

Child, D. (1990). *The Essentials of Factor Analysis (2nd Ed.).* New York: Cassell Educational.

Chimienti, G., Nasr, J. A., and Khalifeh, I. (1989). Children's reactions to war-related stress. *Social Psychiatry and Psychiatric Epidemiology*, *24*(6), 282-287.

Christianson, S., and Marren, J. (2012). The impact of event scale-revised (IES-R), *21*(5), 321-322.

Cicchetti, D. V., and Sparrow, S. A. (1981). Developing criteria for establishing interrater reliability of specific items: Applications to assessment of adaptive behavior. *American Journal of Mental Deficiency, 86*(2), 127-137.

Clark-Carter, D. (1997). *Doing Quantitative Psychological Research: From Design to Report.* Psychology Press/Erlbaum (UK) Taylor and Francis.

Cohen, E. C. (1998). *Perceived Social Support as a Protective Factor in Manifest and Emotional Resilience Available from Dissertations and Theses:* Pace University. Retrieved from https://search.proquest.com/docview/304469966.

Cohen, S., and Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310.

Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., and Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist, 48*(10), 1013.

Cole, D. A., and Maxwell, S. E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modelling. *Journal of Abnormal Psychology, 112*(4), 558.

Collins, H. (2017). *Creative Research: The Theory and Practice of Research for the Creative Industries (2nd Ed).* London: Bloomsbury Publishing.

Collins, T. M. (2017). A child's right to participate: Implications for international child protection. *The International Journal of Human Rights, 21*(1), 14-46.

Comer, J. S., Fan, B., Duarte, C. S., Wu, P., Musa, G. J., Mandell, D. J., and Hoven, C. W. (2010). Attack-related life disruption and child psychopathology in New York City public schoolchildren 6-months post-9/11. *Journal of Clinical Child and Adolescent Psychology, 39*(4), 460-469.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., and Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127*(1), 87.

Comrey, A. L., and Lee, H. B. (1992). *A First Course in Factor Analysis* (2nd Ed). New York and London: Lawrence Erlbaum Associates, Inc., Publishers.

Conway, J. M., and Huffcutt, A. I. (2003). A review and evaluation of exploratory factor analysis practices in organizational research. *Organizational Research Methods, 6*(2), 147-168.

Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., Liautaud, J. (2017). Complex trauma in children and adolescents. *Psychiatric Annals, 35*(5), 390-398.

Cooper, M. L., Shaver, P. R., and Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology, 74*(5), 1380-1397.

Copeland, W. E., Keeler, G., Angold, A., and Costello, E. J. (2007). Traumatic events and posttraumatic stress in childhood. *Archives of General Psychiatry, 64*(5), 577-584.

Cortes, L., and Buchanan, M. J. (2007). The experience of Columbian child soldiers from a resilience perspective. *International Journal for the Advancement of Counselling, 29*(1), 43-55.

Corner, S. (2009). Choosing the right type of rotation in PCA and EFA. *JALT testing & evaluation SIG newsletter*, *13*(3), 20-25.

Costa, F. M., Jessor, R., and Turbin, M. S. (1999). Transition into adolescent problem drinking: The role of psychosocial risk and protective factors. *Journal of Studies on Alcohol, 60*(4), 480-490.

Costello, A. B. (2009). Getting the most from your analysis. *Pan, 12*(2), 131-146.

Costello, A. B., and Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation, 10*(*7), 1-9*.

Costello, E. J., Egger, H. L., and Angold, A. (2005). The developmental epidemiology of anxiety disorders: Phenomenology, prevalence, and comorbidity. *Child and Adolescent Psychiatric Clinics, 14*(4), 631-648.

Cowan, P. A., Cowan, C. P., Schulz, M. S., Hetherington, E. M., and Blechman, E. A. (1996). Thinking about risk and resilience in families. *Stress, Coping, and Resiliency in Children and Families, 1*, 1-38.

Coyne, I. (2006). Consultation with children in hospital: Children, parents' and nurses' perspectives. *Journal of Clinical Nursing,* 15(1), 61-71.

Dalgaard, N. T., Todd, B. K., Daniel, S. I., and Montgomery, E. (2016). The transmission of trauma in refugee families: Associations between intra-family trauma communication style, children's attachment security and psychosocial adjustment. *Attachment and Human Development, 18*(1), 69-89.

Dang, H., Weiss, B., and Trung, L. T. (2016). Functional impairment and mental health functioning among Vietnamese children. *Social Psychiatry and Psychiatric Epidemiology, 51*(1), 39-47.

Dapo, N., and Kolenovic-Dapo, J. (2000). Evaluation of the psychosocial adjustment of displaced children from Srebrenica. *Sarajevo,* 150-154.

Davey, C., Heard, R., and Lennings, C. (2015). Development of the Arabic versions of the impact of events Scale-Revised and the posttraumatic growth inventory to assess trauma and growth in Middle Eastern refugees in Australia. *Clinical Psychologist, 19*(3), 131-139.

Davidson, J. R., and Foa, E. B. (1991). Diagnostic issues in posttraumatic stress disorder: Considerations for the DSM-IV. *Journal of Abnormal Psychology*, 100(3), 346.

Davidson, J., Smith, R., and Kudler, H. (1989). Familial psychiatric illness in chronic posttraumatic stress disorder. *Comprehensive Psychiatry, 30*(4), 339-345.

Deeba, F., Rapee, R. M., and Prvan, T. (2014). Psychometric properties of the children's revised impact of events scale (CRIES) with Bangladeshi children and adolescents. *PeerJ, 2*, e536.

Demaray, M. K., and Malecki, C. K. (2002). The relationship between perceived social support and maladjustment for students at risk. *Psychology in the Schools, 39*(3), 305-316.

DePillis, L., Saluja, K., and Lu, D. (2015). A visual guide to 75 years of major refugee crises around the world. *Washington Post, 21*. Retrieved from ttps://www.washingtonpost.com/graphics/world/historical-migrant-crisis/[accessed 22 Jun2017].

Derluyn, I., and Broekaert, E. (2007). Different perspectives on emotional and behavioural problems in unaccompanied refugee children and adolescents. *Ethnicity and Health, 12*(2), 141-162.

Derryberry, D., and Rothbart, M. K. (1984). Emotion, attention, and temperament. *Emotions, Cognition, and Behavior*, 132-166.

Di Riso, D., Salcuni, S., Chessa, D., Raudino, A., Lis, A., and Altoè, G. (2010). The Strengths and Difficulties Questionnaire (SDQ). Early evidence of its reliability and validity in a community sample of Italian children. *Personality and Individual Differences, 49*(6), 570-575.

Diab, M., Peltonen, K., Qouta, S. R., Palosaari, E., and Punamäki, R. (2015). Effectiveness of psychosocial intervention enhancing resilience among war-affected children and the moderating role of family factors. *Child Abuse and Neglect, 40*, 24-35.

Diab, S. Y., Guillaume, M., and Punamäki, R. (2018). Ecological approach to academic achievement in the face of war and military violence: Mediating and moderating role of school, family, and child characteristics. *The Elementary School Journal, 119*(1), 1-28.

Diab, S. Y., Palosaari, E., and Punamäki, R. (2018). Society, individual, family, and school factors contributing to child mental health in war: The ecological-theory perspective. *Child Abuse and Neglect, 84*, 205-216.

Dickstein, B. D., Schorr, Y., Stein, N., Krantz, L. H., Solomon, Z., and Litz, B. T. (2012). Coping and mental health outcomes among Israelis living with the chronic threat of terrorism. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(4), 392-399.

Doocy, S., Sirois, A., Tileva, M., Storey, J. D., and Burnham, G. (2013). Chronic disease and disability among Iraqi populations displaced in Jordan and Syria. *The International Journal of Health Planning and Management, 28*(1), e12.

Doyle, F., Watson, R., Morgan, K., and McBride, O. (2012). A hierarchy of distress and invariant item ordering in the general health questionnaire-12. *Journal of Affective Disorders, 139*(1), 85-88.

DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H. D., Lockerd, E. M., and Moran, B. L. (2002). Getting by with a little help from self and others: Self-esteem and social support as resources during early adolescence. *Developmental Psychology, 38*(5), 822.

Durà-Vilà, G., Klasen, H., Makatini, Z., Rahimi, Z., and Hodes, M. (2013). Mental health problems of young refugees: Duration of settlement, risk factors and community-based interventions. *Clinical Child Psychology and Psychiatry, 18*(4), 604-623.

Durkin, K. (1995). *Developmental Social Psychology: From Infancy to Old Age*. Oxford, UK: Blackwell Publishers Ltd.

Dyregrov, A., and Yule, W. (2006). A review of PTSD in children. *Child and Adolescent Mental Health, 11*(4), 176-184.

Dyregrov, A., Gjestad, R., and Raundalen, M. (2002). Children exposed to warfare: A longitudinal study. *Journal of Traumatic Stress, 15*(1), 59-68.

Ekblad, S. (1993). Psychosocial adaptation of children while housed in a Swedish refugee camp: Aftermath of the collapse of Yugoslavia. *Stress Medicine, 9*(3), 159-166.

Elbedour, S., Onwuegbuzie, A. J., Ghannam, J., Whitcome, J. A., and Hein, F. A. (2007). Post-traumatic stress disorder, depression, and anxiety among Gaza strip adolescents in the wake of the second uprising (intifada). *Child Abuse and Neglect, 31*(7), 719-729.

Elkatawneh, H. H. (2013). Libyan civil war. Retrieved from: https://ssrn.com/abstract=2377561 or http://dx.doi.org/10.2139/ssrn.2377561[Accessed 22 March 2018].

Ellis, B. H., MacDonald, H. Z., Klunk-Gillis, J., Lincoln, A., Strunin, L., and Cabral, H. J. (2010). Discrimination and mental health among Somali refugee adolescents: the role of acculturation and gender. *American Journal of Orthopsychiatry, 80*(4), 564.

Ellis, B. H., MacDonald, H. Z., Lincoln, A. K., and Cabral, H. J. (2008). Mental health of Somali adolescent refugees: The role of trauma, stress, and perceived discrimination. *Journal of Consulting and Clinical Psychology*, *76*(2), 184-193.

Ellis, B. H., Miller, A. B., Abdi, S., Barrett, C., Blood, E. A., and Betancourt, T. S. (2013). Multi-tier mental health program for refugee youth. *Journal of Consulting and Clinical Psychology*, *81*(1), 129.

England-Mason, G., Khoury, J., Atkinson, L., Hall, G. B., and Gonzalez, A. (2018). Attentional avoidance of emotional stimuli in postpartum women with childhood history of maltreatment and difficulties with emotion regulation. *Emotion*, *18*(3), 424.

Eruyar, S., Maltby, J., and Vostanis, P. (2018). Mental health problems of Syrian refugee children: the role of parental factors. *European child and adolescent psychiatry*, *27*(4), 401-409.

Evans, D. L., Foa, E. B., Gur, R. E., Hendin, H., O'Brien, C. P., Seligman, M. E., and Walsh, B. T. (Eds.). (2005). *Treating and Preventing Adolescent Mental Health Disorders: What We Know And What We Don't Know. New York*: Oxford University Press.

Exploring expedition, across the Rocky Mountains, from the Missouri to California. (1849). *The Athenaeum*, (1123), 461-463.

Fabricius, W. V., Sokol, K. R., Diaz, P., and Braver, S. L. (2012). Parenting time, parent conflict, parent-child relationships, and children's physical health. *Parenting Plan Evaluations:* Arizona State University: *Applied Research for the Family Court*, 188-213.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., and Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*(3), 272.

Faoaz A Zaghloal. (2011). Strategies of dealing with families exposed to violence. *Journal of Humanties and Sociences*, *38*(2), 1-300.

Farhood, L., Zurayk, H., Chaya, M., Saadeh, F., Meshefedjian, G., and Sidani, T. (1993). The impact of war on the physical and mental health of the family: The Lebanese experience. *Social Science and Medicine*, *36*(12), 1555-1567.

Fathi, N., and Arfaoui, J. (2014). Tunisia, Libya in AQIM crosshairs. *Magharebia.–31.01*.

Fayyad, J., Cordahi-Tabet, C., Yeretzian, J., Salamoun, M., Najm, C., and Karam, E. G. (2016). Resilience-promoting factors in war-exposed adolescents: An epidemiologic study. *European Child and Adolescent Psychiatry*,1-10.

Fayyad, J., Cordahi-Tabet, C., Yeretzian, J., Salamoun, M., Najm, C., and Karam, E. G. (2017). Resilience-promoting factors in war-exposed adolescents: An epidemiologic study. *European Child and Adolescent Psychiatry*, *26*(2), 191-200.

Fazel, M., Reed, R. V., Panter-Brick, C., and 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.

Fhelboom, R. (2014, Sep 15). Little-noticed Libyan war has a big effect on education. Al-Fanar Media. Retrieved from http://www.al-fanarmedia.org/2014/09/little-noticed-war-big-effect-education/.[accessed 11 April 2018]

Field, A. (2000). *Discovering Statistics Using SPSS for Windows: Advanced Techniques for the Beginner*. London: SAGE.

Fields, L., and Prinz, R. J. (1997). Coping and adjustment during childhood and adolescence. *Clinical Psychology Review, 17*(8), 937-976.

Fitzpatrick, K. M. (1993). Exposure to violence and presence of depression among low-income, African-American youth. *Journal of Consulting and Clinical Psychology, 61*(3), 528.

Folkman, S., and Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*(1), 150.

Foster, H., and Brooks-Gunn, J. (2015). Children's exposure to community and war violence and mental health in four African countries. *Social Science and Medicine, 146*, 292-299.

Frančišković, T., Stevanović, A., Jelušić, I., Roganović, B., Klarić, M., and Grković, J. (2007). Secondary traumatization of wives of war veterans with posttraumatic stress disorder. *Croatian Medical Journal, 48*(2.), 0-184.

Fransen, M. L., Verlegh, P. W., Kirmani, A., and Smit, E. G. (2015). A typology of consumer strategies for resisting advertising, and a review of mechanisms for countering them. *International Journal of Advertising, 34*(1), 6-16.

Fuhr, D. C., Salisbury, T. T., De Silva, M. J., Atif, N., van Ginneken, N., Rahman, A., and Patel, V. (2014). Effectiveness of peer-delivered interventions for severe mental illness and depression on clinical and psychosocial outcomes: a systematic review and meta-analysis. *Social psychiatry and psychiatric epidemiology, 49*(11), 1691-1702.

Furman, W., and Buhrmester, D. (2009). Methods and measures: The network of relationships inventory: Behavioral systems version. *International Journal of Behavioral Development, 33*(5), 470-478.

Furnham, A. (1987). *A Handbook of Test Construction, Introduction to Psychometric Design*: P. Kline: Methuen, London*:* Hutchinson.

Garbarino, J. (1980). *The Ecology of Human Development: Experiments by Nature And Design: By Urie Bronfenbrenner. US: Cambridge, mass: Harvard University press.*

Garbarino, J., and Kostelny, K. (1994). *Family Support and Community Development*. In S. L. Kagan and B. Weissbourd (Eds.), The Jossey-Bass *Social and Behavioral Science Series* and The Jossey-Bass *Educational Series*. *Putting Families First*: *America's Family Support Movement and the Challenge of Change* (pp. 297-320). San Francisco, CA, US: Jossey-Bass.

Garbarino, J., Dubrow, N., Kostelny, K., and Pardo, C. (1992). *Children in Danger: Coping With the Consequences of Community Violence.* San Francisco, CA, US: Jossey-Bass.

Garmezy, N. (1985). Stress-resistant children: The search for protective factors. *Recent Research in Developmental Psychopathology, 4*, 213-233.

Geltman, P. L., Grant-Knight, W., Ellis, H., and Landgraf, J. M. (2008). The "lost boys" of Sudan: Use of health services and functional health outcomes of unaccompanied refugee minors resettled in the US. *Journal of Immigrant and Minority Health, 10*(5), 389-396.

General, U. S. (2001). Youth violence: A report of the surgeon general. *Washington DC: US Department of Health and Human Services,* (3), 399.

Getanda, E. M., Vostanis, P., and O'reilly, M. (2017). Exploring the challenges of meeting child mental health needs through community engagement in Kenya. *Child and Adolescent Mental Health*, *22*(4), 201-208.

Gil, S., and Caspi, Y. (2006). Personality traits, coping style, and perceived threat as predictors of posttraumatic stress disorder after exposure to a terrorist attack: A prospective study. *Psychosomatic Medicine, 68*(6), 904-909.

Gill, A. N. (1998). *What Makes Parent Training Groups Effective? Promoting Positive Parenting Through Collaboration*. Doctoral dissertation, Psychology. UK: University of Leicester.

Goldberg, D. and Williams, P. (1988) *A User's Guide to the General Health Questionnaire.* NFER-Nelson, Windsor, UK.

Goldin, S., Hägglöf, B., Levin, L., and Persson, L. Å. (2008). Mental health of Bosnian refugee children: A comparison of clinician appraisal with parent, child and teacher reports. *Nordic Journal of Psychiatry, 62*(3), 204-216.

Goldstein, R. D., Wampler, N. S., and Wise, P. H. (1997). War experiences and distress symptoms of Bosnian children. *Pediatrics*, *100*(5), 873-878.

Goodman, A., Lamping, D. L., and Ploubidis, G. B. (2010). When to use broader internalising and externalising subscales instead of the hypothesised five subscales on the strengths and difficulties questionnaire (SDQ): Data from British parents, teachers and children. *Journal of Abnormal Child Psychology*, *38*(8), 1179-1191.

Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38*(5), 581-586.

Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*(11), 1337-1345.

Goodman, R., Ford, T., Simmons, H., Gatward, R., and Meltzer, H. (2000). Using the strengths and difficulties questionnaire (SDQ) to screen for child psychiatric disorders in a community sample. *The British Journal of Psychiatry, 177*(6), 534-539.

Gordon-Hollingsworth, A. T., Thompson, J. E., Geary, M. A., Schexnaildre, M. A., Lai, B. S., and Kelley, M. L. (2016). Social support questionnaire for children development and initial validation. *Measurement and Evaluation in Counseling and Development, 49*(2), 122-144.

Greco, D. M. (2004). *Examining Family Factors That Influence Perceived Social Support In Children With Chronic Illness. Chicago:* Loyola University. Retrieved from https://elibrary.ru/item.asp?id=8892313.

Green, S. B. (1991). How many subjects does it take to do a regression analysis. *Multivariate Behavioral Research, 26*(3), 499-510.

Greenbaum, C. W., Erlich, C., and Toubiana, Y. H. (1993). *Settler Children and the Gulf War.* In Lewis A. Leavitt and Nathan A. Fox (Eds.) *The Psychological Effects of War And Violence on Children*. New York. Psychology press.

Grguric, J., and Hirsl-Hecej, V. (Eds). (1993). *Program for providing minimum nutritional and health care requirements for children in Croatia*. Zagreb, Croatia*: Committee for Coordination of Relief and Health Care for Children in Exceptional Circumstances.*

Grizenko, N., and Fisher, C. (1992). Review of studies of risk and protective factors for psychopathology in children. *The Canadian Journal of Psychiatry, 37*(10), 711-721.

Guba, E. G., and Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of Qualitative Research, 2*(163-194), 105.

Gupta, L., and Zimmer, C. (2008). Psychosocial intervention for war-affected children in Sierra Leone. *The British Journal of Psychiatry, 192*(3), 212-216.

Gurwitch, R. H., Sullivan, M. A., and Long, P. J. (1998). The impact of trauma and disaster on young children. *Child and Adolescent Psychiatric Clinics of North America, 7*(1), viii.

Gutman, L. M., Sameroff, A. J., and Eccles, J. S. (2002). The academic achievement of African American students during early adolescence: An examination of multiple risk, promotive, and protective factors. *American Journal of Community Psychology, 30*(3), 367-399.

Hagan, M. J., Gentry, M., Ippen, C. G., and Lieberman, A. F. (2018). PTSD with and without dissociation in young children exposed to interpersonal trauma. *Journal of Affective Disorders, 227,* 536-541.

Hair, J. F., Black, W. C., and Babin, B. J. (2014). *Multivariate Data Analysis: Pearson New International Edition* (7th Ed.). UK: Pearson.

Halstead, E., Ekas, N., Hastings, R. P., and Griffith, G. M. (2018). Associations between resilience and the well-being of mothers of children with autism spectrum disorder and other developmental disabilities. *Journal of autism and developmental disorders, 48*(4), 1108-1121.

Haluska, H. B., Jessee, P. O., and Nagy, M. C. (2002, October). Sources of social support: adolescents with cancer. In Oncology Nursing Forum (Vol. 29, No. 9).

Hamdan-Mansour, A. M., and Dawani, H. A. (2008). Social support and stress among university students in Jordan. *International Journal of Mental Health and Addiction, 6*(3), 442-450.

Hamilton, R., Anderson, A., Frater-Mathieson, K., Loewen, S., and Moore, D. (2000). Literature review: Interventions for refugee children in New Zealand schools: Models, methods and best practice (report prepared for the ministry of education). *Auckland: University of Auckland.*

Hapke, L. (2015). *Social Support Networks among Children with Intellectual and Developmental Disabilities.* Doctoral dissertation, Psychology. US: University of New Hampshire.

Harbom, L., Melander, E., and Wallensteen, P. (2008). Dyadic dimensions of armed conflict, 1946—2007. *Journal of Peace Research, 45*(5), 697-710.

Harkness, L. L. (1991). The effect of combat-related PTSD on children. *National Center for PTSD Clinical Newsletter, 2*(1), 12-13.

Hasanović, M., Sinanović, O., and Pavlović, S. (2005). Acculturation and psychological problems of adolescents from Bosnia and Herzegovina during exile and repatriation. *Croatian Medical Journal, 46*(1)

Hassan, C., Quintero, E., Dumonceau, J., Regula, J., Brandão, C., Chaussade, S.,Gimeno-García, A. (2013). Post-polypectomy colonoscopy surveillance: European society of gastrointestinal endoscopy (ESGE) guideline. *Endoscopy, 45*(10), 842-864.

Hawkins, J. D., Catalano, R. F., and Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*(1), 64.

Hayton, J. C., Allen, D. G., and Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods, 7*(2), 191-205.

Hecker, T., Fetz, S., Ainamani, H., and Elbert, T. (2015). The cycle of violence: Associations between exposure to violence, trauma-related symptoms and aggression—Findings from Congolese refugees in Uganda. *Journal of Traumatic Stress, 28*(5), 448-455.

Hein, J. (1993). Refugees, immigrants, and the state. *Annual Review of Sociology, 19*(1), 43-59.

Hennigan, K. M., O'Keefe, M., Noether, C. D., Rinehart, D. J., and Russell, L. A. (2006). Through a mother's eyes: Sources of bias when mothers with co-occurring disorders assess their children. *The Journal of Behavioral Health Services and Research, 33*(1), 87-104.

Heptinstall, E., Sethna, V., and Taylor, E. (2004). PTSD and depression in refugee children. *European Child and Adolescent Psychiatry, 13*(6), 373-380.

Hill, R. (1998). What sample size is "enough" in internet survey research. *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century, 6*(3-4), 1-12.

Hinton, D. E., Kredlow, M. A., Pich, V., Bui, E., and Hofmann, S. G. (2013). The relationship of PTSD to key somatic complaints and cultural syndromes among Cambodian refugees attending a psychiatric clinic: The Cambodian somatic symptom and syndrome inventory (CSSI). *Transcultural Psychiatry, 50*(3), 347-370.

Hizli, F. G., Taskintuna, N., Isikli, S., Kilic, C., and Zileli, L. (2009). Predictors of posttraumatic stress in children and adolescents. *Children and Youth Services Review, 31*(3), 349-354.

Hoagwood, K., Jensen, P. S., and Fisher, C. B. (Eds.) (2014). *Ethical Issues in Mental Health Research With Children and Adolescents.* Routledge: New York.

Hodes, M., and Vostanis, P. (2019). Practitioner Review: Mental health problems of refugee children and adolescents and their management. *Journal of child psychology and psychiatry, 60*(7), 716-731.

Hodes, M., Jagdev, D., Chandra, N., and Cunniff, A. (2008). Risk and resilience for psychological distress amongst unaccompanied asylum seeking adolescents. *Journal of Child Psychology and Psychiatry, 49*(7), 723-732.

Hodes, M., Vasquez, M. M., Anagnostopoulos, D., Triantafyllou, K., Abdelhady, D., Weiss, K., .Skokauskas, N. (2017). Refugees in Europe: National Overviews from Key Countries with a Special Focus on Child and Adolescent Mental Health. *Springer Berlin Heidelberg 99(1), 389-399.*

Hoexter, M. Q., Fadel, G., Felício, A. C., Calzavara, M. B., Batista, I. R., Reis, M. A., Mello, M. F. (2012). Higher striatal dopamine transporter density in PTSD: An in vivo SPECT study with [99m tc] TRODAT-1. *Psychopharmacology, 224*(2), 337-345.

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometric, 30*(2), 179-185.

Horowitz, M., Wilner, N., and Alvarez, W. (1979). Impact of event scale: A measure of subjective stress. *Psychosomatic Medicine, 41*(3), 209-218.

Howell, D. C. (2007). *The treatment of missing data. The Sage handbook of social science methodology*, 208-224.London: Sage.

Huemer J, Vostanis P. (2010). *Chapter 16: Child Refugees and Refugee Families.* In Bhugra D, Craig T, Bhui K, (Eds). *Mental health of Refugees and Asylum Seekers*. New York: Oxford University Press, 225–42

Hughes, R., Kinder, A., and Cooper, C. L. (2019). *Living With Depression*. *The Wellbeing Workout* (pp. 139-143).UK: Springer.

Hupcey, J. E. (1998). Social support: Assessing conceptual coherence. *Qualitative Health Research, 8*(3), 304-318.

Hyder, A. A., Wali, S. A., Khan, A. N., Teoh, N. B., Kass, N. E., and Dawson, L. (2004). Ethical review of health research: A perspective from developing country researchers. *Journal of Medical Ethics, 30*(1), 68-72.

Hyer, K., and Brown, L. M. (2008). The impact of event Scale–Revised: A quick measure of a patient's response to trauma. *AJN the American Journal of Nursing, 108*(11), 60-68.

IDMC. (2015). Conflict and violence-induced displacement. Retrieved from http://www.internal-displacement.org/global-figures.

Im, H., Caudill, C., and Ferguson, A. B. (2016). From victim to perpetrator of trauma: Lived experiences of gang-involved urban refugee youth in Kenya. *Journal of Aggression, Maltreatment and Trauma, 25*(7), 753-771.

International organization for migration. (2017, Mar 21,). Libya: IOM Libya releases 2016 displacement trends analysis report. *TendersInfo News. Retrieved from* https://www.iom.int/news/iom-libya-releases-2016-displacement-trends-analysis-report. [Accessed 16 August 2019].

Irin News. (2014). Lingering psychological trauma three years after Libya's uprising. Retrieved from http://www.irinnews.org/report/100042/lingering-psychological-trauma-three-years-after-libya-s-uprising. [Accessed 20 June 2017]

Isaac, S., and Michael, W. B. (1971). *Handbook In Research And Evaluation.* (3rd .ed.). San Diego: Edits publishers.

Jabbar, S. A., and Zaza, H. I. (2014). Impact of conflict in Syria on Syrian children at the Zaatari refugee camp in Jordan. *Early Child Development and Care, 184*(9-10), 1507-1530.

Jensen, T. K., Fjermestad, K. W., Granly, L., and Wilhelmsen, N. H. (2015). Stressful life experiences and mental health problems among unaccompanied asylum-seeking children. *Clinical Child Psychology and Psychiatry, 20*(1), 106-116.

John, P. B., and Russell, P. S. S. (2007). Validation of a measure to assess post-traumatic stress disorder: A Sinhalese version of impact of event scale. *Clinical Practice and Epidemiology in Mental Health, 3*(1), 4.

John, P. B., Russell, S., and Russell, P. S. S. (2007). The prevalence of posttraumatic stress disorder among children and adolescents affected by tsunami disaster in Tamil nadu. *Disaster Management and Response, 5*(1), 3-7.

Jones, L. (2002). Adolescent understandings of political violence and psychological well-being: A qualitative study from Bosnia Herzegovina. *Social Science and Medicine, 55*(8), 1351-1371.

Jones, L., and Kafetsios, K. (2005). Exposure to political violence and psychological well-being in Bosnian adolescents: A mixed method approach. *Clinical Child Psychology and Psychiatry, 10*(2), 157-176.

Jonker, J., and Pennink, B. (2010). *The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science.* London and New York: Springer Science and Business Media.

Jordans, M. J., Komproe, I. H., Tol, W. A., Kohrt, B. A., Luitel, N. P., Macy, R. D., and De Jong, J. T. (2010). Evaluation of a classroom-based psychosocial intervention in conflict-affected Nepal: A cluster randomized controlled trial. *Journal of Child Psychology and Psychiatry, 51*(7), 818-826.

Jordans, M. J., Pigott, H., and Tol, W. A. (2016). Interventions for children affected by armed conflict: A systematic review of mental health and psychosocial support in low- and middle-income countries. *Current Psychiatry Reports, 18*(1), 9.

Joseph, S., Dalgleish, T., Williams, R., Yule, W., Thrasher, S., and Hodgkinson, P. (1997). Attitudes towards emotional expression and post-traumatic stress in survivors of the herald of free enterprise disaster. *British Journal of Clinical Psychology, 36*(1), 133-138.

Joshi, P., and O'Donnell, D. (2003). Consequences of child exposure to war and terrorism. *Clinical Child and Family Psychology Review, 6*(4), 275-292.

Jouriles, E. N., McDonald, R., Rosenfield, D., Stephens, N., Corbitt-Shindler, D., and Miller, P. C. (2009). Reducing conduct problems among children exposed to intimate partner violence: A randomized clinical trial examining effects of project support. *Journal of Consulting and Clinical Psychology, 77*(4), 705.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39*(1), 31-36.

Kanji, Z., and Cameron, B. L. (2010). Exploring the experiences of resilience in Muslim afghan refugee children. *Journal of Muslim Mental Health, 5*(1), 22-40.

Kaplan, H. B. (Ed.). (2013). *Psychosocial Stress: Trends. In Theory And Research*. New York: Academic Press.

Karam, E. G., Friedman, M. J., Hill, E. D., Kessler, R. C., McLaughlin, K. A., Petukhova, M., . . . Bromet, E. J. (2014). Cumulative traumas and risk thresholds: 12-month PTSD in the world mental health (WMH) surveys. *Depression and Anxiety, 31*(2), 130-142.

Kassam-Adams, N., Garcia-Espana, J. F., Miller, V. A., and Winston, F. (2006). Parent-child agreement regarding children's acute stress: The role of parent acute stress reactions. *Journal of the American Academy of Child and Adolescent Psychiatry, 45*(12), 1485-1493.

Kazak, A., and Rostain, A. (1989). Systemic aspects of family compliance in childhood chronic illness. *Newsletter of the Society of paediatric Psychology, 13*(1), 12-17.

Kelley, K., and Preacher, K. J. (2012). On effect size. *Psychological Methods, 17*(2), 137.

Khamis, V. (2005). Post-traumatic stress disorder among school age Palestinian children. *Child Abuse and Neglect, 29*(1), 81-95.

Khamis, V. (2015). Coping with war trauma and psychological distress among school-age Palestinian children. *American Journal of Orthopsychiatry, 85*(1), 72.

Khawaja, N. G., White, K. M., Schweitzer, R., and Greenslade, J. (2008). Difficulties and coping strategies of Sudanese refugees: A qualitative approach. *Transcultural Psychiatry, 45*(3), 489-512.

Kien, I., Sommer, C., Faustmann, A., Gibson, L., Schneider, M., Krczal, E., and Gartlehner, G. (2018). Prevalence of Mental Disorders in Young Refugees and Asylum-Seekers in European Countries. *European Journal of Public Health, 28*(4), 213-455.

Kilmer, R. P., and Gil-Rivas, V. (2010). Exploring posttraumatic growth in children impacted by hurricane Katrina: Correlates of the phenomenon and developmental considerations. *Child Development, 81*(4), 1211-1227.

Kilpatrick, D. G., Ruggiero, K. J., Acierno, R., Saunders, B. E., Resnick, H. S., and Best, C. L. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the national survey of adolescents. *Journal of Consulting and Clinical Psychology, 71*(4), 692.

Kirmayer, L. J., and Young, A. (1998). Culture and somatization: Clinical, epidemiological, and ethnographic perspectives. *Psychosomatic Medicine, 60*(4), 420-430.

Kleinbaum, D. G., and Klein, M. (2010). *Maximum Likelihood Techniques: An Overview. Logistic Regression*. New York, Springer.

Kocijan-Hercigonja, D., Rijavec, M., Marusic, A., and Hercigonja, V. (1998). Coping strategies of refugee, displaced, and non-displaced children in a war area. *Nordic Journal of Psychiatry, 52*(1), 45-50.

Kohrt, B. (2013). No title. *Social Ecology Interventions for Post-Traumatic Stress Disorder: What can we Learn from Child Soldiers*, (203), 165-167.

Kostelny, K., and Garbarino, J. (1994). Coping with the consequences of living in danger: The case of Palestinian children and youth. *International Journal of Behavioral Development, 17*(4), 595-611.

Krejcie, R. V., and Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610.

Krok, D. (2008). The role of spirituality in coping: Examining the relationships between spiritual dimensions and coping styles. *Mental Health, Religion and Culture, 11*(7), 643-653.

Kurki, K., Järvenoja, H., Järvelä, S., and Mykkänen, A. (2017). Young children's use of emotion and behaviour regulation strategies in socio-emotionally challenging day-care situations. *Early Childhood Research Quarterly, 41*, 50-62.

La Greca, A. M., Auslander, W. F., Greco, P., Spetter, D., Fisher, E. B., and Santiago, J. V. (1995). I get by with a little help from my family and friends: Adolescents' support for diabetes care. *Journal of Paediatric Psychology, 20*(4), 449-476.

Laban, C. J., Komproe, I. H., Gernaat, H. B., and de Jong, J. T. (2008). The impact of a long asylum procedure on quality of life, disability and physical health in Iraqi asylum seekers in the Netherlands. *Social Psychiatry and Psychiatric Epidemiology, 43*(7), 507.

Ladd, G. W., and Troop-Gordon, W. (2003). The role of chronic peer difficulties in the development of children's psychological adjustment problems. *Child Development, 74*(5), 1344-1367.

Lambert, J. E., Holzer, J., and Hasbun, A. (2014). Association between parents' PTSD severity and children's psychological distress: A meta-analysis. *Journal of Traumatic Stress, 27*(1), 9-17.

Landau, S. F., Dvir-Gvirsman, S., Huesmann, R., Dubow, E., Boxer, P., Ginges, J., and Shikaki, K. (2015). The effects of exposure to violence on aggressive behavior: The case of Arab and Jewish children in Israel. *Hebrew University of Jerusalem Legal Research Paper*, 16-19.

Landis, J. R., and Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*. *International Biometric Society 33(1)*159-174.

Lassan, S. (2015). Protecting the children and youth of Syria: Human security threats and their consequences. *Protecting the Children and Youth of Syria: Human Security Threats and their Consequences*, 1-19.

Lazarus, R. S. (1993). Coping theory and research: Past, present, and future. *Fifty Years of the Research and Theory of RS Lazarus: An Analysis of Historical and Perennial Issues*, 366-388.

Lazarus, R. S., and Folkman, S. (1984) Stress, Appraisal, and Coping. *New York: pringer*.

Lazarus, R. S., and Folkman, S. (1986). *Cognitive Theories of Stress and The Issue of Circularity. In M. H. Appley and R. Trumbull* (Eds.). *The Plenum Series on Stress and Coping. Dynamics of stress: Physiological, psychological, and social perspectives* (pp. 63-80). New York, NY, US: Plenum Press.

Leschied, A. W., Chiodo, D., Whitehead, P. C., and Hurley, D. (2005). The relationship between maternal depression and child outcomes in a child welfare sample: Implications for treatment and policy. *Child and Family Social Work, 10*(4), 281-291.

Leshem, B., Haj-Yahia, M. M., and Guterman, N. B. (2016). The role of family and teacher support in post-traumatic stress symptoms among Palestinian adolescents exposed to community violence. *Journal of Child and Family Studies, 25*(2), 488-502.

Liefaard T. and Sloth-Nielsen J.J. (2016), 25 Years CRC: Reflecting on Successes, Failures and the Future. In: Liefaard T., Sloth-Nielsen J.J. (Eds.). The United Nations Convention on the Rights of the Child. Taking Stock after 25 Years and Looking Ahead. Leiden; Boston: Brill, Nijhoff.

Lindert, J., von Ehrenstein, O. S., Priebe, S., Mielck, A., and Brähler, E. (2009). Depression and anxiety in labour migrants and refugees–a systematic review and meta-analysis. *Social Science and Medicine, 69*(2), 246-257.

Little, T. D., Lindenberger, U., and Nesselroade, J. R. (1999). On selecting indicators for multivariate measurement and modelling with latent variables: When" good" indicators are bad and" bad" indicators are good. *Psychological Methods, 4*(2), 192.

Liu, Y. L. (1996). *The Relationship of Perceived Social Support from Family and Peers to Taiwanese Adolescents' Coping With Different Stressors*. Doctoral dissertation, University of Texas at Austin.

Llosa, A. E., Ghantous, Z., Souza, R., Forgione, F., Bastin, P., Jones, A., Grais, R. F. (2014). Mental disorders, disability and treatment gap in a protracted refugee setting. *The British Journal of Psychiatry, 204*(3), 208-213.

Loeber, R., and Farrington, D. P. (2000). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development and Psychopathology, 12*(4), 737-762.

Loeber, R., and Farrington, D.P.(Eds). (2001). *Child Delinquents: Development, Intervention, and Service Needs.* Thousand Oaks, US: Sage Publications, Inc.

Luthar, S. S. (2015). Resilience in development: A synthesis of research across five decades. *Developmental Psychopathology: Volume Three: Risk, Disorder, and Adaptation*, 739-795.

Lyons-Ruth, K. (1996). Attachment relationships among children with aggressive behavior problems: The role of disorganized early attachment patterns. *Journal of Consulting and Clinical Psychology, 64*(1), 64-73.

Mace, A. O., Mulheron, S., Jones, C., and Cherian, S. (2014). Educational, developmental and psychological outcomes of resettled refugee children in western A Australia: A review of School of Special Educational Needs: Medical and Mental Health input. *Journal of Paediatrics and Child Health, 50*(12), 985-992.

MacKinnon-Lewis, C., Rabiner, D., and Starnes, R. (1999). Predicting boys' social acceptance and aggression: The role of mother–child interactions and boys' beliefs about peers. *Developmental Psychology, 35*(3), 632.

Macksoud, M. S., and Aber, J. L. (1996). The war experiences and psychosocial development of children in Lebanon. *Child Development, 67*(1), 70-88.

Main , M., and Solomon J. (1986). *Discovery of a New, Insecure-Disorganized/Disoriented Attachment Pattern*. In Yogman M. and Brazelton T. B. (Eds.), *Affective development in infancy* (pp. 95–124). Norwood, NJ: Ablex.

Maltby, J. (2013). *Personality, individual differences, and intelligence* (3rd Ed.).UK: Pearson.

Maltby, J., Day, L., and Hall, S. (2015). Refining trait resilience: Identifying engineering, ecological, and adaptive facets from extant measures of resilience. *PloS One, 10*(7), e0131826.

Maršanić, V. B., Margetić, B. A., Jukić, V., Matko, V., and Grgić, V. (2014). Self-reported emotional and behavioral symptoms, parent-adolescent bonding and family functioning in clinically referred adolescent offspring of Croatian PTSD war veterans. *European Child and Adolescent Psychiatry, 23*(5), 295-306.

Martin, C. R., and Newell, R. J. (2005). Is the 12-item general health questionnaire (GHQ-12) confounded by scoring method in individuals with facial disfigurement? *Psychology and Health, 20*(5), 651-659.

Martinsen, K. B. (2016). *United Nations Security Council Resolution 1973 and the Authorization of Use Force in Libya.* (Master's thesis). The Norwegian: The University of Oslo.

Masten, A. S., Narayan, A. J., Silverman, W. K., and Osofsky, J. D. (2015). Children in war and disaster. *Handbook of Child Psychology and Developmental Science, 4*, 704-745.

Masten, A., and Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments - lessons from research on successful children. *American Psychologist; Am.Psychol., 53*(2), 205-220.

Mathews, B. L., Koehn, A. J., Abtahi, M. M., and Kerns, K. A. (2016). Emotional competence and anxiety in childhood and adolescence: A meta-analytic review. *Clinical Child and Family Psychology Review, 19*(2), 162-184.

Mazza, J. J., and Reynolds, W. M. (1999). Exposure to violence in young inner-city adolescents: Relationships with suicidal ideation, depression, and PTSD symptomatology. *Journal of Abnormal Child Psychology, 27*(3), 203-213.

McCloskey, L. A., Figueredo, A. J., and Koss, M. P. (1995). The effects of systemic family violence on children's mental health. *Child Development, 66*(5), 1239-1261.

McDermott, B. M. (2004). Child and youth emotional trauma: An explanatory model of adverse outcomes. *Psychiatry, Psychology and Law, 11*(2), 269-279.

McFarlane, A. C. (1992). Avoidance and intrusion in posttraumatic stress disorder. *Journal of Nervous and Mental Disease, 180(7):439-45.*

McGinnity, Á., Meltzer, H., Ford, T., and Goodman, R. (2005). *Mental Health of Children and Young People in Great Britain, 2004*. H. Green (Ed.). Basingstoke: Palgrave Macmillan.

McNally, R. J. (2003). Psychological mechanisms in acute response to trauma. *Biological Psychiatry, 53*(9), 779-788.

Mels, C., Derluyn, I., Broekaert, E., and Rosseel, Y. (2010). The psychological impact of forced displacement and related risk factors on eastern Congolese adolescents affected by war. *Journal of Child Psychology and Psychiatry, 51*(10), 1096-1104.

Meltzer, H., Vostanis, P., Goodman, R., and Ford, T. (2007). Children's perceptions of neighbourhood trustworthiness and safety and their mental health. *Journal of Child Psychology and Psychiatry, 48*(12), 1208-1213.

Meng, H., Tao. B., Wan. H., Yan. U., and Wang. X. (2011). Coping as a mechanism linking stressful life events and mental health problems in adolescents. *Biomedical and Environmental Sciences, 24*(6), 649-655.

Mieloo, C., Raat, H., van Oort, F., Bevaart, F., Vogel, I., Donker, M., and Jansen, W. (2012). Validity and reliability of the strengths and difficulties questionnaire in 5â€“6 year olds: Differences by gender or by parental education? *PloS One, 7*(5), e36805.

Miller, K. E., and Jordans, M. J. (2016). Determinants of children's mental health in war-torn settings: Translating research into action. *Current Psychiatry Reports, 18*(6), 1-6.

Miller, K. E., and Rasmussen, A. (2017). The mental health of civilians displaced by armed conflict: An ecological model of refugee distress. *Epidemiology and Psychiatric Sciences, 26*(2), 129-138.

Misic, D. (1999). *The Impact of Violence Exposure on Adolescents' Ratings of Posttraumatic Stress, Depression and Suicidal Ideation.* Doctoral dissertation, University of British Columbia.

Mitchell, K. S., Wolf, E. J., Bovin, M. J., Lee, L. O., Green, J. D., Rosen, R. C., Marx, B. P. (2017). Network models of DSM–5 posttraumatic stress disorder: Implications for ICD–11.*Journal of Abnormal Psychology, 126*(3), 355.

Moh'd Yehia, D. B., Callister, L. C., and Hamdan-Mansour, A. (2013). Prevalence and predictors of postpartum depression among Arabic Muslim Jordanian women serving in the military. *The Journal of Perinatal and Neonatal Nursing, 27*(1), 25-33.

Mollica, R. F., Poole, C., Son, L., Murray, C. C., and Tor, S. (1997). Effects of war trauma on Cambodian refugee adolescents' functional health and mental health status. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*(8), 1098-1106.

Montazeri, A., Harirchi, A. M., Shariati, M., Garmaroudi, G., Ebadi, M., and Fateh, A. (2003). The 12-item general health questionnaire (GHQ-12): Translation and validation study of the Iranian version. *Health and Quality of Life Outcomes, 1*(1), 66.

Montgomery, E. (2008). Long-term effects of organized violence on young Middle Eastern refugees' mental health. *Social Science and Medicine, 67*(10), 1596-1603.

Moos, R. H., and Schaefer, J. A. (1993). *Coping Resources and Processes: Current Concepts and Measures. In L. Goldberger and S. Breznitz (Eds.), Handbook of Stress: Theoretical and Clinical Aspects (pp. 234-257)*. New York, NY, US: Free Press.

Morgan, D. L. (2007). Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research, 1*(1), 48-76.

Morgos, D., Worden, J. W., and Gupta, L. (2008). Psychosocial effects of war experiences among displaced children in southern Darfur. *OMEGA-Journal of Death and Dying, 56*(3), 229-253.

Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., and Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social Development, 16*(2), 361-388.

Murove, T. (2009). *Domestic Violence and Child Protection: Directions for Good Practice*. In Humphreys, C. and Stanley, N. (Eds.), London and Philadelphia, Jessica Kingsley Publishers, 2006, 224 pp. (paperback). ISBN 1–84310–276–5.

Murthy, R. S., and Lakshmi Narayana, R. (2006). Mental health consequences of war: A brief review of research findings. *World Psychiatry, 5*(1), 25.

Najarkolaei, F. R., Raiisi, F., Rahnama, P., Fesharaki, M. G., Zamani, O., Jafari, M. R., and Montazeri, A. (2014). Factor structure of the Iranian version of 12-item general health questionnaire. *Iranian Red Crescent Medical Journal, 16*(9)

Nashef, Y. (1992). *The psychological impact of the Intifada on Palestinian children living in refugee camps in the West Bank, as reflected in their dreams, drawings and behavior* (Vol. 4). P. Lang.

Natalie Muller. (2016). Refugee convention of 1951 still crucial cornerstone of human rights. Retrieved from https://www.dw.com/en/refugee-convention-of-1951-still-crucial-cornerstone-of-human-rights/a-19429093.

Norhayati, M. N., and Aniza, A. A. (2014). Psychometric properties of the Malay version of impact of event scale-revised (IES-R). *International Journal of Collaborative Research on Internal Medicine and Public Health (IJCRIMPH), 6*(2)

Nunnally, J. C. (1978). *Psychometric Theory (2nd Ed.)* McGraw-Hill. Hillsdale, NJ.

Olden, L. K. (2005). Posttraumatic stress and somatization in Iraqi Shiite refugees: Clinicians' judgments. *Science Index*. Retrieved from https://elibrary.ru/item.asp?id=9413136. [Accessed 6 July 2019]

Oldfield, J., Humphrey, N., and Hebron, J. (2016). The role of parental and peer attachment relationships and school connectedness in predicting adolescent mental health outcomes. *Child and Adolescent Mental Health, 21*(1), 21-29.

Organisation Mondiale de la santé, and World Health Organization. (1993). *The ICD-10 Classification of Mental and Behavioural Disorders: Diagnostic Criteria For Research* (Vol. 2). World Health Organization. Geneva: Switzerland.

Orth, U., Robins, R. W., Meier, L. L., and Conger, R. D. (2016). Refining the vulnerability model of low self-esteem and depression: Disentangling the effects of genuine self-esteem and narcissism. *Journal of Personality and Social Psychology, 110*(1), 133.

Osofsky, J. D. (1995). The effect of exposure to violence on young children. *American Psychologist, 50*(9), 782.

Özer, S., Sirin, S. R., and Oppedal, B. (2016). *Bahçeşehir Study of Syrian Refugee Children in Turkey.* TU: Bahçeşehir University.

Palgi, Y., Ben-Ezra, M., Langer, S., and Essar, N. (2009). The effect of prolonged exposure to war stress on the comorbidity of PTSD and depression among hospital personnel. *Psychiatry Research, 168*(3), 262-264.

Papageorgiou, V., Frangou-Garunovic, A., Iordanidou, R., Yule, W., Smith, P., and Vostanis, P. (2000). War trauma and psychopathology in Bosnian refugee children. *European Child and Adolescent Psychiatry, 9*(2), 84-90.

Patel, V., Araya, R., De Lima, M., Ludermir, A., and Todd, C. (1999). Women, poverty and common mental disorders in four restructuring societies. *Social Science and Medicine, 49*(11), 1461-1471.

Paterson, G. R. (1982). *A Social Learning Approach to Family Intervention: Vol 3: Coercive Family Process*. Eugene (OR): Catalina.

Pat-Horenczyk, R., Qasrawi, R., Lesack, R., Haj-Yahia, M., Peled, O., Shaheen, M., Abdeen, Z. (2009). Posttraumatic symptoms, functional impairment, and coping among adolescents on both sides of the Israeli–Palestinian conflict: A Cross-Cultural approach. *Applied Psychology, 58*(4), 688-708.

Paxton, K. C., Robinson, W. L., Shah, S., and Schoeny, M. E. (2004). Psychological distress for African- American adolescent males: Exposure to community violence and social support as factors. *Child Psychiatry and Human Development, 34*(4), 281-295.

Peltonen, K., Qouta, S., Diab, M., and Punamäki, R. (2014). Resilience among children in war: The role of multilevel social factors. *Traumatology, 20*(4), 232.

Percy, A., McCrystal, P., and Higgins, K. (2008). Confirmatory factor analysis of the adolescent self-report strengths and difficulties questionnaire. *European Journal of Psychological Assessment, 24*(1), 43-48.

Perrin, S., Meiser-Stedman, R., and Smith, P. (2005). The children's revised impact of event scale (CRIES): Validity as a screening instrument for PTSD. *Behavioural and Cognitive Psychotherapy, 33*(4), 487-498.

Pfefferbaum, B., Jacobs, A. K., Houston, J. B., and Griffin, N. (2015). Children's disaster reactions: The influence of family and social factors. *Current Psychiatry Reports, 17*(7), 57.

Porter, M., and Haslam, N. (2005). Pre-displacement and post displacement factors associated with mental health of refugees and internally displaced persons: A meta-analysis. *Jama, 294*(5), 602-612.

Procidano, M. E., and Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology, 11*(1), 1-24.

PUNAMKI, R. (1988). Political violence and mental health. *International Journal of Mental Health, 17*(4), 3-15.

Quiggle, N. L., Garber, J., Panak, W. F., and Dodge, K. A. (1992). Social information processing in aggressive and depressed children. *Child Development, 63*(6), 1305-1320.

Rabiner, D. L., Keane, S. P., and MacKinnon-Lewis, C. (1993). Children's beliefs about familiar and unfamiliar peers in relation to their sociometric status. *Developmental Psychology, 29*(2), 236.

Rapee, R. M., Schniering, C. A., and Hudson, J. L. (2009). Anxiety disorders during childhood and adolescence: Origins and treatment. *Annual Review of Clinical Psychology, 5*, 311-341.

Reavell, J., and 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.

Reiss, F. (2013). Socioeconomic inequalities and mental health problems in children and adolescents: A systematic review. *Social Science and Medicine, 90*, 24-31.

Reitz, E., Deković, M., and Meijer, A. M. (2006). Relations between parenting and externalizing and internalizing problem behaviour in early adolescence: Child behaviour as moderator and predictor. *Journal of Adolescence, 29*(3), 419-436.

Rhouma, A. H., Husain, N., Gire, N., and Chaudhry, I. B. (2016). Mental health services in libya. *BJPsych International, 13*(3), 70-71.

Richters, J. E., and Martinez, P. E. (1993). Violent communities, family choices, and children's chances: An algorithm for improving the odds. *Development and Psychopathology, 5*(4), 609-627.

Rimm-Kaufman, S. E., and Kagan, J. (2005). Infant predictors of kindergarten behavior: The contribution of inhibited and uninhibited temperament types. *Behavioral Disorders, 30*(4), 331-347.

Rosahn, P. D., Hu, C. K., and Pearce, L. (1936). The reaction of normal and rabbit pox immune adult rabbits to vaccination with vaccine virus. *The Journal of Immunology, 31*(2), 59-71.

Rosshandler, Y., Hall, B. J., and Canetti, D. (2016). An application of an ecological framework to understand risk factors of PTSD due to prolonged conflict exposure: Israeli and Palestinian adolescents in the line of fire. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(5), 641.

Roth, S., and Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist, 41*(7), 813.

Rousseau, C., Drapeau, A., and Corin, E. (1998). Risk and protective factors in Central American and Southeast Asian refugee children. *Journal of Refugee Studies, 11*(1), 20-37.

Rousseau, C., Drapeau, A., and Platt, R. (2000). Living conditions and emotional profiles of Cambodian, Central American, and Quebecois youth. *The Canadian Journal of Psychiatry, 45*(10), 905-911.

Rudolph, K. D., Hammen, C., and Burge, D. (1995). Cognitive representations of self, family, and peers in school-age children: Links with social competence and sociometric status. *Child Development, 66*(5), 1385-1402.

Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. *British Journal of Psychiatry, 147,* 598-611.

Rutter, M., and Brown, G. (1966). The reliability and validity of measures of family life and relationships in families containing a psychiatric patient. *Social Psychiatry, 1*(1), 38-53.

Rutter, M., and Garmezy, N. (1983). Developmental psychopathology. *Handbook of Child Psychology, 4,* 775-911.

Ryder, A. G., Yang, J., Zhu, X., Yao, S., Yi, J., Heine, S. J., and Bagby, R. M. (2008). The cultural shaping of depression: Somatic symptoms in china, psychological symptoms in North America? *Journal of Abnormal Psychology, 117*(2), 300.

Sack, W. H., Clarke, G. N., and Seeley, J. (1996). Multiple forms of stress in Cambodian adolescent refugees. *Child Development, 67*(1), 107-116.

Saigh, P. A. (1989a). A comparative analysis of the affective and behavioral symptomology of traumatized and nontraumatized children. *Journal of School Psychology, 27*(3), 247-255.

Saigh, P. A. (1989b). The validity of the DSM-III posttraumatic stress disorder classification as applied to children. *Journal of Abnormal Psychology, 98*(2), 189.

Salter Ainsworth, M. D., Blehar, M. C., Waters, E., and Wall, S. (1982). Patterns of attachment: A psychological study of the strange situation. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 23*(1), 85-87.

Salzinger, S., Feldman, R. S., Stockhammer, T., and Hood, J. (2002). An ecological framework for understanding risk for exposure to community violence and the effects of exposure on children and adolescents. *Aggression and Violent Behavior, 7*(5), 423-451.

Sandler, I. N., Tein, J., and West, S. G. (1994). Coping, stress, and the psychological symptoms of children of divorce: A cross-sectional and longitudinal study. *Child Development, 65*(6), 1744-1763.

Santa Barbara, J. (2006). Impact of war on children and imperative to end war. *Croatian Medical Journal, 47*(6), 891.

Sarason, I. G., Pierce, G. R., and Sarason, B. R. (1990). Social support and interactional processes: A triadic hypothesis. *Journal of Social and Personal Relationships, 7*(4), 495-506.

Scaer, R. (2014). *The Body Bears The Burden: Trauma, Dissociation, and Disease. (3rd Ed.).*New York and London: Routledge.

Scheeringa, M. S., and Zeanah, C. H. (2001). A relational perspective on PTSD in early childhood. *Journal of Traumatic Stress, 14*(4), 799-815.

Schubert, C. C., and Punamäki, R. (2011). Mental health among torture survivors: Cultural background, refugee status and gender. *Nordic Journal of Psychiatry, 65*(3), 175-182.

Schweitzer, R. D., Brough, M., Vromans, L., and Asic-Kobe, M. (2011). Mental health of newly arrived Burmese refugees in Australia: Contributions of pre-migration and post-migration experience. *Australian and New Zealand Journal of Psychiatry, 45*(4), 299-307.

Scott, B. G., Sanders, A. F., Graham, R. A., Banks, D. M., Russell, J. D., Berman, S. L., and Weems, C. F. (2014). Identity distress among youth exposed to natural disasters: Associations with level of exposure, posttraumatic stress, and internalizing problems. *Identity, 14*(4), 255-267.

Scott, S. (2001). Deciding whether interventions for antisocial behaviour work: Principles of outcome assessment, and practice in a multicentre trial. (Author abstract). *European Child and Adolescent Psychiatry, 10*(4), I59.

Selner-O'Hagan, M. B., Kindlon, D. J., Buka, S. L., Raudenbush, S. W., and Earls, F. J. (1998). Assessing exposure to violence in urban youth. *The Journal of Child Psychology and Psychiatry and Allied Disciplines, 39*(2), 215-224.

Shaffer, A., Burt, K. B., Obradovic, J., Herbers, J. E., and Masten, A. S. (2009). Intergenerational continuity in parenting quality: The mediating role of social competence. *Developmental Psychology, 45*(5), 1227-1240.

Shahar, G., and Henrich, C. C. (2016). Perceived family social support buffers against the effects of exposure to rocket attacks on adolescent depression, aggression, and severe violence. *Journal of Family Psychology, 30*(1), 163.

Shalev, A. Y. (2001). What is posttraumatic stress disorder? *The Journal of Clinical Psychiatry, 62 Suppl 17*, 4. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/11495095. [Accessed 15 August 2017]

Shamai, M., and Kimhi, S. (2006). Exposure to threat of war and terror, political attitudes, stress, and life satisfaction among teenagers in Israel. *Journal of Adolescence, 29*(2), 165-176.

Sheikh, T. L., Mohammed, A., Agunbiade, S., Ike, J., Ebiti, W. N., and Adekeye, O. (2014). Psycho-trauma, psychosocial adjustment, and symptomatic post-traumatic stress disorder among internally displaced persons in Kaduna, Northwestern Nigeria. *Frontiers in PSYCHIATRY, 5*, 127-133.

Sim, A., Fazel, M., Bowes, L., and Gardner, F. (2018). Pathways linking war and displacement to parenting and child adjustment: A qualitative study with Syrian refugees in Lebanon. *Social Science and Medicine, 200*, 19-26.

Simich, L., Hamilton, H., and Baya, B. K. (2006). Mental distress, economic hardship and expectations of life in canada among sudanese newcomers. *Transcultural Psychiatry, 43*(3), 418-444.

Siriwardhana, C., Abas, M., Siribaddana, S., Sumathipala, A., and Stewart, R. (2015). Dynamics of resilience in forced migration: A 1-year follow-up study of longitudinal associations with mental health in a conflict-affected, ethnic Muslim population. *BMJ Open, 5*(2).

Skokauskas N, Fung D, Flaherty LT, von Klitzing K, Pūras D, Servili C, Dua T, Falissard B, Vostanis P, Moyano MB, Feldman I, Clark C, Boričević V, Patton G, Leventhal B, Guerrero A (2019).Shaping the future of child and adolescent psychiatry. *Child Adolescent Psychiatry Ment Health*, 13, 19.

Slobodin, O., and de Jong, J. T. (2015). Family interventions in traumatized immigrants and refugees: a systematic review. *Transcultural Psychiatry, 52*(6), 723-742.

Slone, M., and Mann, S. (2016). Effects of war, terrorism and armed conflict on young children: A systematic review. *Child Psychiatry and Human Development, 47*(6), 950-965.

Slone, M., Lobel, T., and Gilat, I. (1999). Dimensions of the political environment affecting children's mental health an Israeli study. *Journal of Conflict Resolution, 43*(1), 78-91.

Smith, D. (2001). Children in the heat of war. *Monitor on Psychology, 32*(8).

Smith, M. (2004). Parental mental health: Disruptions to parenting and outcomes for children. *Child and Family Social Work, 9*(1), 3-11.

Smith, P., Dalgleish, T., and Meiser-Stedman, R. (2018). Practitioner review: Posttraumatic stress disorder and its treatment in children and adolescents. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 500-515.*

Smith, P., Perrin, S., Yule, W., and Rabe-Hesketh, S. (2001). War exposure and maternal reactions in the psychological adjustment of children from Bosnia-Hercegovina. *The Journal of Child Psychology and Psychiatry and Allied Disciplines, 42*(3), 395-404.

Smokowski, P. R., Guo, S., Evans, C. B., Wu, Q., Rose, R. A., Bacallao, M., and Cotter, K. L. (2017). Risk and protective factors across multiple microsystems associated with internalizing symptoms and aggressive behavior in rural adolescents: Modeling longitudinal trajectories from the Rural Adaptation Project. *American journal of orthopsychiatry, 87*(1), 94.

Soysa, C. K., and Azar, S. T. (2016). Active war in sri lanka: Children's war exposure, coping, and posttraumatic stress disorder symptom severity. *American Journal of Orthopsychiatry, 86*(6), 671.

Spell, A. W., Kelley, M. L., Wang, J., Self-Brown, S., Davidson, K. L., Pellegrin, A., Baumeister, A. (2008). The moderating effects of maternal psychopathology on

children's adjustment post–hurricane Katrina. *Journal of Clinical Child and Adolescent Psychology, 37*(3), 553-563.

Stark, L., and Landis, D. (2016). Violence against children in humanitarian settings: A literature review of population-based approaches. *Social Science and Medicine, 152*, 125-137.

Stauffer, S. (2008). Trauma and disorganized attachment in refugee children: Integrating theories and exploring treatment options. *Refugee Survey Quarterly, 27*(4), 150-163.

Stevanovic, D., Bagheri, Z., Atilola, O., Vostanis, P., Stupar, D., Moreira, P., Knez, R. (2017). Cross-cultural measurement invariance of the revised child anxiety and depression scale across 11 world-wide societies. *Epidemiology and Psychiatric Sciences, 26*(4), 430-440.

Stover, C. S., Hahn, H., Im, J. J., and Berkowitz, S. (2010). Agreement of parent and child reports of trauma exposure and symptoms in the early aftermath of a traumatic event. *Psychological Trauma: Theory, Research, Practice, and Policy, 2*(3), 159.

Sujoldžić, A., Peternel, L., Kulenović, T., and Terzić, R. (2006). Social determinants of health–A comparative study of bosnian adolescents in different cultural contexts. *Collegium Antropologicum, 30*(4), 703-711.

Suls, J., and Fletcher, B. (1985). No title. *The Relative Efficacy of Avoidant and Nonavoidant Coping Strategies: A Meta-Analysis., 4*(3), 249.

Tabachnick, B. G., Fidell, L. S., and Ullman, J. B. (2007). *Using Multivariate Statistics* (5th Ed). Boston, MA: Pearson.

Tamburrino, I., Getanda, E., O'Reilly, M., and Vostanis, P. (2018). "Everybody's responsibility": Conceptualization of youth mental health in Kenya. *Journal of Child Health Care, 1–14.*1367493518814918.

Tashakkori, A., and Teddlie, C. (Eds.). (2010). *Sage Handbook of Mixed Methods in Social and Behavioral Research*. TU: Hacettepe University.

Thabet, A. A. M., Abed, Y., and Vostanis, P. (2004). Comorbidity of PTSD and depression among refugee children during war conflict. *Journal of Child Psychology and Psychiatry, 45*(3), 533-542.

Thabet, A. A. M., and Vostanis, P. (2014). Impact of trauma on Palestinian children and the role of coping strategies. *British journal of medicine and medical research. 5(3): 330-340.*

Thabet, A. A., Ibraheem, A. N., Shivram, R., Winter, E. A., and Vostanis, P. (2009). Parenting support and PTSD in children of a war zone. *International Journal of Social Psychiatry, 55*(3), 226-237.

Thabet, A. A., Matar, S., Carpintero, A., Bankart, J., and Vostanis, P. (2011). Mental health problems among labour children in the Gaza strip. *Child: Care, Health and Development, 37*(1), 89-95.

Thabet, A. A., Stretch, D., and Vostanis, P. (2000). Child mental health problems in arab children: Application of the strengths and difficulties questionnaire. *International Journal of Social Psychiatry, 46*(4), 266-280.

Thabet, A. A., Tawahina, A. A., El Sarraj, E., and Vostanis, P. (2008). Exposure to war trauma and PTSD among parents and children in the Gaza strip. *European Child and Adolescent Psychiatry, 17*(4), 191.

Thabet, A. A., Tawahina, A. A., El Sarraj, E., and Vostanis, P. (2008). Exposure to war trauma and PTSD among parents and children in the Gaza strip. *European Child and Adolescent Psychiatry, 17*(4), 191.

Thabet, A. A., Tawahina, A. A., Punamäki, R. L., and Vostanis, P. (2015). Trauma, PTSD, and traumatic grief among Palestinian children. *SM J Community Med, 1*(3), 1011.

Thabet, A. A., Tawahina, A., El Sarraj, E., Henely, D., Pelleick, H., and Vostanis, P. (2011). Post-traumatic stress disorder and attention-deficit hyperactivity disorder in Palestinian children affected by the war on Gaza. *International Psychiatry, 8*(4), 84-85.

Thabet, A. M. (2018). The relationship between trauma due to war, post-traumatic stress disorder and fears among Palestinian children. *EC Paediatrics, 7*, 171-178.

Thabet, A. M., and Thabet, S. S. (2016). Quality of life of Palestine children exposed to wars in gaza. *International Neuropsychiatric Disease, 6*(1), 1-11.

Thabet, A. M., and Thabet, S. S. (2018). Psychosocial problems in refugee children victims of community violence in Gaza strip. *International Journal of Neurological Nursing, 4*(1), 1-9.

Thabet, A. M., Thabet, S. S., and Vostanis, P. (2016). The relationship between war trauma, PTSD, depression, and anxiety among Palestinian children in the Gaza strip. *Health Science Journal, 10*(5), 1.

Thabet, A., and Vostanis, P. (1998). Social adversities and anxiety disorders in the Gaza strip. *Archives of Disease in Childhood, 78*(5), 439-442.

Thatcher, D. L., and Krikorian, R. (2005). Exploratory factor analysis of two measures of posttraumatic stress disorder (PTSD) symptoms in a non-clinical sample of college students. *Journal of Anxiety Disorders, 19*(8), 904-914.

Thoits, P. A. (1992). *Social Support Functions and Network Structures: A Supplemental View. In H. O. F. Veiel and U. Baumann (Eds.), The Series in Clinical and Community Psychology. The Meaning and Measurement of Social Support* (pp. 57-62). Washington, DC, US: Hemisphere Publishing Corp.

Thomas, A., and Chess, S. (1977). Temperament and Development. Oxford, England: Brunner/Mazel.

Thompson, R. J., Jr., and Gustafson, K. E. (1996). *Adaptation to Chronic Childhood Illness*. Washington, DC: American Psychological Association Press.

Tol, W. A., Song, S., and Jordans, M. J. (2013). Annual research review: Resilience and mental health in children and adolescents living in areas of armed conflict–a systematic review of findings in low-and middle-income countries. *Journal of Child Psychology and Psychiatry, 54*(4), 445-460.

Trentacosta, C. J., McLear, C. M., Ziadni, M. S., Lumley, M. A., and Arfken, C. L. (2016). Potentially traumatic events and mental health problems among children of Iraqi refugees: The roles of relationships with parents and feelings about school. *American Journal of Orthopsychiatry, 86*(4), 384.

Troop-Gordon, W., and Ladd, G. W. (2005). Trajectories of peer victimization and perceptions of the self and schoolmates: Precursors to internalizing and externalizing problems. *Child Development, 76*(5), 1072-1091.

Undheim, A. M., Wallander, J., and Sund, A. M. (2016). Coping strategies and associations with depression among 12-to 15-year-Old Norwegian adolescents involved in bullying. *The Journal of Nervous and Mental Disease, 204*(4), 274-279.

UNHCR. (2018). The UNHCR representative in Libya, quick impact projects. Retrieved from https://www.unhcr.org/libya.html. [Accessed 7 June 2019]

UNHCR. (2018). Unhcr projected global resettlement needs. Retrieved from https://www.unhcr.org/protection/resettlement/593a88f27/unhcr-projected-global-resettlement-needs-2018.html.

UNHCR. (2018c). While the population uprooted by wars and persecution is on the rise worldwide, the numbers of refugee children enrolled in schools is failing to keep pace, according to a new report by UNHCR, the UN refugee agency released today. Retrieved from https://www.unhcr.org/news/latest/2018/8/5b86342b4/four-million-refugee-children-schooling-unhcr-report.html. [Accessed 12 September 2019]

UNICEF. (2011). Libya's other crisis: Two million children at physical and emotional risk. Retrieved from http://www2.unicef.org :60090/protection/laj_ 59204.html [Accessed 15 May 2016].

UNICEF. (2015). Andnbsp; children in war. Retrieved from https://www.unicef.org/sowc96/childwar.htm. [Accessed 18 July 2018].

UNICEF. (2015, Nov 10,). Andnbsp; supports efforts to strengthen protection of conflict-affected children in Libya. *Targeted News Service* Retrieved from https://search.proquest.com/docview/1732263694. [Accessed 23 March 2019]

UNICEF. (2018). How the world failed children in conflict in 2018. Retrieved from https://www.unicef.org/stories/how-world-failed-children-2018. [Accessed 15 January 2019].

UNICEF. (2018). Latest statistics and graphics on refugee and migrant children. Retrieved from https://www.unicef.org/eca/emergencies/latest-statistics-and-graphics-refugee-and-migrant-children. [Accessed 25 May 2019].

UNICEF. (2019, Jan 2,). World: World has failed to protect children in conflict in 2018: UNICEF. *Asia News Monitor* Retrieved from https://search.proquest.com/docview/2161378523. [Accessed 16 April 2019].

UNISEF. (2010). A summary of the UN convention on the rights of the child. Retrieved from https://www.unicef.org.uk/wp-content/uploads/2010/05/UNCRC_summary-1.pdf. [Accessed 13 November 2016].

UNISEF. (2019). Improved outcomes in education, nutrition, wellbeing for refugee children in Lebanon an dnbsp; Retrieved from https://www.unicef-irc.org/article/1892-improved-outcomes-for-refugee-children-in-lebanon-in-education-nutrition-and-well.html. [Accessed 11 May 2019].

United Nations Development Programme. (2009). Human development report 2009*: Human* development on the move UN.

United Nations High Commissioner for Refugees. (2009). No title. *Refugees, Asylum-Seekers, Returnees, Internally Displaced and Stateless Persons.(2010).United Nations High Commissioner for Refugees.*

United States. (2001). *Youth violence: A report of the surgeon general* (3rd Ed.). Washington, D.C: For sale by the U.S. G.P.O., Supt. of Docs. Retrieved from http://hdl.handle.net/2027/umn.31951d02123938g.

UNURC. (2012, Feb 12,). Libya's attacks on civilians may be international crimes - UN rights chief. *Web News Wire* Retrieved from http://www.unhcr-arabic.org/cgi-bin/texis/vtx/home.

Van Ee, E., Kleber, R. J., Jongmans, M. J., Mooren, T. T. M., and Out, D. (2016). Parental PTSD, adverse parenting and child attachment in a refugee sample. *Attachment and Human Development, 18*(3), 273-291.

Van Loon, L. M., Van de Ven, Monique OM, Van Doesum, K. T., Witteman, C. L., and Hosman, C. M. (2014). The relation between parental mental illness and adolescent mental health: The role of family factors. *Journal of Child and Family Studies, 23*(7), 1201-1214.

Verlinden, E., Meijel, E. P., Opmeer, B. C., Beer, R., Roos, C., Bicanic, I. A., Lindauer, R. J. (2014). Characteristics of the children's revised impact of event scale in a clinically referred Dutch sample. *Journal of Traumatic Stress, 27*(3), 338-344.

Veronese, G., Pepe, A., Jaradah, A., Al Muranak, F., and Hamdouna, H. (2017). Modelling life satisfaction and adjustment to trauma in children exposed to ongoing military violence: An exploratory study in Palestine. *Child Abuse and Neglect, 63*, 61-72.

Wahler, R. G. (1976). Deviant child behavior within the family: Developmental speculations and behavior change strategies. *Handbook of Behavior Modification and Behavior Therapy*, 516-543.

War, F. A., Ved, R. S., and Paul, M. A. (2016). Mental health and self-esteem of institutionalized adolescents affected by armed conflict. *Journal of Religion and Health, 55*(2), 593-601.

Waters, E., Merrick, S., Treboux, D., Crowell, J., and Albersheim, L. (2000). Attachment security in infancy and early adulthood: A twenty-year longitudinal study. *Child Development; Child Dev., 71*(3), 684-689.

Webster-Stratton, C., and Herbert, M. (1994). Strategies for helping parents of children with conduct disorders. *Progress in Behavior Modification, 29*, 121-142.

Weijers, D., van Steensel, F. J. A., and Bögels, S. M. (2018). Associations between psychopathology in mothers, fathers and their children: a structural modeling approach. *Journal of child and family studies*, *27*(6), 1992-2003.

Weisenberg, M., Schwarzwald, J., Waysman, M., Solomon, Z., and Klingman, A. (1993). Coping of school-age children in the sealed room during scud missile bombardment and postwar stress reactions. *Journal of Consulting and Clinical Psychology, 61*(3), 462.

Wickham, R. E., and West, J. (2002). Therapeutic work with sexually abused children. London, GB: SAGE Publications Ltd. Retrieved from http://site.ebrary.com/lib/leicester/docDetail.action?docID=10076699andppg=1.

Williamson, V., Creswell, C., Butler, I., Christie, H., and Halligan, S. L. (2017). Parental experiences of supporting children with clinically significant post-traumatic distress: A qualitative study of families accessing psychological services. *Journal of Child and Adolescent Trauma, 12*(1), 61-72.

Wilson, A. C., Lengua, L. J., Meltzoff, A. N., and Smith, K. A. (2010). Parenting and temperament prior to September 11, 2001, and parenting specific to 9/11 as predictors of children's posttraumatic stress symptoms following 9/11. *Journal of Clinical Child and Adolescent Psychology, 39*(4), 445-459.

Windle, G., Bennett, K. M., and Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes, 9*(1), 8.

Winefield, H. R., Goldney, R. D., Winefield, A. H., and Tiggemann, M. (1989). The general health questionnaire: Reliability and validity for Australian youth. *Australian and New Zealand Journal of Psychiatry*, *23*(1), 53-58.

Wolmer, L., Laor, N., Gershon, A., Mayes, L. C., and Cohen, D. J. (2000). The mother-child dyad facing trauma: A developmental outlook. *The Journal of Nervous and Mental Disease, 188*(7), 409-415.

Woodcock, J. (2000). A systemic approach to trauma. *Context: The Magazine for Family Therapy and Systemic Practice, 51*, 2-4.

World Health Organization. (2013). *Global Tuberculosis Report 2013 World Health Organization.* Geneva: Switzerland, World health organization.

Yatham, S., Sivathasan, S., Yoon, R., da Silva, T. L., and Ravindran, A. V. (2018). Depression, anxiety, and post-traumatic stress disorder among youth in low and middle income countries: A review of prevalence and treatment interventions. *Asian Journal of Psychiatry, 38*, 78-91.

Yildirim, M., and Belen, H. (2018). Fear of happiness predicts subjective and psychological well-being above the behavioral inhibition system (BIS) and behavioral activation system (BAS) model of personality. *Journal of Positive Psychology and Wellbeing, 2*(1), 92-111.

Yong, A. G., and Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology, 9*(2), 79-94.

Zeidner, M. (2005). Contextual and personal predictors of adaptive outcomes under terror attack: The case of Israeli adolescents. *Journal of Youth and Adolescence, 34*(5), 459-470.

Zeidner, M., Klingman, A., and Itskowitz, R. (1993). Children's affective reactions and coping under threat of missile attack: A semi projective assessment procedure. *Journal of Personality Assessment, 60*(3), 435-457.

Ziv, A., and Israeli, R. (1973). Effects of bombardment on the manifest anxiety level of children living in the kibbutzim. *Journal of Consulting and Clinical Psychology, 40*(2), 287.

APPENDICES

APPENDIX A: Ethics Approval from the Libyan Ministry of Education

الحكومة الليبية
Government Of Libya

وزارة التعليم
Ministry Of Education

الموافق: 15 / 3 / 2016
الرقم الاشاري: 913 - 2 - 1

السادة / مراقبين التعليم بالبلديات - مدراء المدارس

تحية طيبة ...

نأمل منكم التعاون مع الباحث / أحمد عبد الله حسين فيما يتعلق بجمع بيانات ميدانية عن (تأثير الحرب في ليبيا علي الأطفال) والعوامل التي يمكن أن تحد من هذه التأثيرات السلبية .

علماً بأنه المعني عضو هيأة تدريس بجامعة عمر المختار ومبتعث من الدولة الليبية الي المملكة البريطانية المتحدة .

ولكم جزيل الشكر

والسلام عليكم ورحمة الله وبركاته

أ . نوري رمضان عبدالله
مدير إدارة الشؤون الإدارية والمالية

- مدير مكتب الوزير .
- مكتب التفتيش والمتابعة .
- المكلف الشؤون العامة .
أ/ نوري أحمد

APPENDIX B: Leicester University Ethics Approval

UNIVERSITY OF LEICESTER

University Ethics Sub-Committee for Psychology

21/04/2016

Ethics Reference: 6105-aahf2-neuroscience,psychologyandbehaviour

TO:
Name of Researcher Applicant: Ahmad Farag
Department: Psychology
Research Project Title: Protective Factors from the Effects of Civil War on Libyan Children

Dear Ahmad Farag,

RE: Ethics review of Research Study application

The University Ethics Sub-Committee for Psychology has reviewed and discussed the above application.

1. Ethical opinion

The Sub-Committee grants ethical approval to the above research project on the basis described in the application form and supporting documentation, subject to the conditions specified below.

2. Summary of ethics review discussion

The Committee noted the following issues:
The three recommendations made by the ethics committee yesterday have been addressed in the revised parent information letter and the translated gatekeepers' documents.

3. General conditions of the ethical approval

The ethics approval is subject to the following general conditions being met prior to the start of the project:

As the Principal Investigator, you are expected to deliver the research project in accordance with the University's policies and procedures, which includes the University's Research Code of Conduct and the University's Research Ethics Policy.

If relevant, management permission or approval (gate keeper role) must be obtained from host organisation prior to the start of the study at the site concerned.

4. Reporting requirements after ethical approval

You are expected to notify the Sub-Committee about:

- Significant amendments to the project
- Serious breaches of the protocol
- Annual progress reports
- Notifying the end of the study

5. Use of application information

Details from your ethics application will be stored on the University Ethics Online System. With your permission, the Sub-Committee may wish to use parts of the application in an anonymised format for training or sharing best practice. Please let me know if you do not want the application details to be used in this manner.

Best wishes for the success of this research project.

Yours sincerely,

Prof. Panos Vostanis
Chair

APPENDIX C: Information Sheet and Invitation Letter

Greenwood Institute of Child Health
Westcotes House
Westcotes Drive
Leicester
LE3 0QU
T: +44 (0)116 225 2885
E: jrw19@le.ac.uk (Unit Administrator)

University of Leicester

Information Sheet & Invitation Letter

School of Psychology at University of Leicester
We have contacted you to ask you and your child to be part of a project. Before you make any decision, however, it is important you know the aims of the study and what would be required of you all. All the information you require is outlined below so be sure to read it fully. Do not hesitate to contact us should you require additional information or any clarification.

Research topic: **Protective Factors from the Effects of Civil War on Children in Libya.**

This invite is to see whether you would be interested in participating in a study which aims to explore the impact on a child's mental health that civil war has in Libya, and whether there are any elements that can lessen these effects, with an aim to help families cope with the harm and help their children recover. You will be surveyed on the impact you have witnessed civil war have, and which elements can lessen your child/children's suffering.

The research conducts by Ahmad Farag, who is a postgraduate research student at the University of Leicester and by Professor Panos Vostanis as the supervisor. This study has been approved by the Psychology Research Ethics Committee at the University of Leicester and by the Libyan Ministry of Education.

There are five questionnaires for you to complete in this research, and then five for your child/children related to the aforementioned subject. The survey has been adopted in many nations and is designed in such a way as to not causing upset for its participants.

BENEFITS AND RISKS

This study is crucial in exploring and understanding any elements that are able to moderate the harmful impacts of civil war in Libya, and in turn help other families. Even though you may not feel a particular assistance to your family currently, the study will go a long way to helping other families in a similar situation

There is no known risk to the study's respondents. The surveys will be collected by me and teachers can assist children when necessary. If any children become confused or worried about any aspects of the survey, the teachers and I will ensure they get relevant assistance, and can suggest to you the best people to contact if necessary

COST, REIMBURSEMENT AND COMPENSATION

Whether you wish to join this research is entirely up to you, and opting not to take part will have no effect on your family's future help or provisions.

CONFIDENTIALITY/ANONYMITY

Participants are children and their parents, then permission will be sought from education authorities, teachers and parents, and extra care will be taken to secure confidentiality. No real names will be used and all data collected will be kept in a secure place; when coded the data will be kept on a password-protected computer. Once the data has been collected, it will be coded.

FOR FURTHER INFORMATION

The primary researcher in this study is the first person you should contact if you require additional information or wish to speak to research team at Leicester University, please contact the following details.

Ahmad Farag
PhD Researcher
University of Leicester,
School of Psychology
Email: aahf2@le.ac.uk

You can also contact the supervisor:

Professor Panos Vostanis,
Professor of Child Psychiatry,
Greenwood Institute of Child Health
Email: pv11@le.ac.uk
University of Leicester
Greenwood Institute of Child Health
Westcotes House
Westcotes Drive
Leicester
LE3 0QU
T: +44 (0)116 225 2885
E: jrw19@le.ac.uk (Unit Administrator)

School of Psychology Consent Form

Research topic: **Protective Factors from the Effects of Civil War on Children in Libya**.

By giving your consent you are signalling that:

1. You read and fully comprehended the respondents' information leaflet
2. Queries relating to you or your child/children's role(s) have been appropriately responded to
3. You have wilfully agreed for your family to participate in this study of your own volition

Name of individual requesting consent Signature of individual requesting consent

Respondents who would like to maintain an element of privacy can simply use their initials. This is the guidance for research according to the British Psychological Society guidelines for Minimal Standards of Ethical Approval.

TIME COMMITMENT

The research will usually last from fifteen to thirty minutes. The part of the survey for children will last approximately the same length of time. During their input, children will be alongside their classmates and teacher, and I will be available to assist any of you during your time completing the survey.

_____

Parent's Name:

_____

Parent's signature*

Today's Date

_____ _____

PARTICIPANTS' RIGHTS

Participants will be given full details of the research and its purpose, and they will be informed that they do not need to participate unless they want to

APPENDIX D: Information Letter for Parents

Greenwood Institute of Child Health
School of Psychology
University of Leicester Westcotes House
Westcotes Drive
Leicester
LE3 0QU
T: +44 (0)116 225 2885

Information Letter for Parents

We have contacted you to ask you and your child whether you could kindly participate in a research study. Before you make any decision, however, it is important that you fully understand the aims of the study and what would be required of you. All the information you require is outlined below, so please make certain that you read it fully. I would be happy to answer any questions. Therefore, please do not hesitate to contact me, should you require additional information or any clarifications.

Research topic: **Protective Factors from the Effects of Civil War on Children in Libya.**

This invitation is to ask whether you would be interested in participating in a study which aims to explore the impact that civil war in Libya may have on children's mental health. We hope that the findings will help us understand better not only how children are affected, particularly how they can be helped during such a difficult period in their lives. To that effect, we are interested in understanding further the kinds of help children receive within their family and community, and how supports can be strengthened further.

The research is conducted by Ahmad Farag, who is a postgraduate research student at the University of Leicester and by Professor Panos Vostanis as the supervisor. This study has been approved by the Psychology Research Ethics Committee at the University of Leicester and by the Libyan Ministry of Education.

There are five questionnaires for you to complete in this research, and then five for your child/children related to the aforementioned subject. These questionnaires have been used in many countries and have been designed in such a way as to not cause any upset to the participants.

BENEFITS AND RISKS

This study is important in exploring and understanding what types of help and support children need in spite of the harmful exposure to civil war in Libya, and in turn help other families. Your decision to participate or not, will not influence any kinds of support you're your child receives. Even though you may not feel a particular assistance to your family

currently, the findings will go a long way to helping other families in a similar situation in the future.

There is no known risk to respondents. The surveys will be collected by me, and teachers can assist children when necessary. If any children become confused or worried about any aspects of the survey, the teachers and I will ensure they get relevant assistance, and can suggest to you the best people to contact if necessary. The same will apply to your child, if you require clarifications or direction for further help, for example referral to the school psychology or child mental health service.

COST, REIMBURSEMENT AND COMPENSATION

Whether you wish to join this research is entirely up to you and your child. You can opt out at any stage until the findings have been analysed, i.e. three months after your participation. Opting not to take part will have no effect on your family's future help or service provision.

CONFIDENTIALITY/ANONYMITY

We will take extra care to secure confidentiality. No real names will be used and all data collected will be kept in a secure place. When coded, the data will be kept on a password-protected computer. Once the data has been collected, it will be coded. The findings will be communicated to relevant education, health and welfare authorities through a report, so that they can help other children and families in the future. No participants will be identified in this or other reports. We will be delighted to send you a copy of the findings if you wish.

TIME COMMITMENT

The research will usually last approximately thirty minutes for parents and approximately the same length of time for children. During their input, children will be alongside their classmates and teacher, and I will be available to assist any of you in completing the survey.

FOR FURTHER INFORMATION

The primary researcher in this study is the first person you should contact if you require additional information or wish to speak to. In that case, please contact:

Ahmad Farag
PhD Researcher
University of Leicester,
School of Psychology
Email: aahf2@le.ac.uk

You can also contact the supervisor:
Professor Panos Vostanis,
Professor of Child Psychiatry,
Greenwood Institute of Child Health
Email: pv11@le.ac.uk
University of Leicester
Greenwood Institute of Child Health
Westcotes House
Westcotes Drive
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LE3 0QU
T: +44 (0)116 225 2885

APPENDIX E: Parental Consent Form

Parent Consent Form

Research topic: **Protective Factors from the Effects of Civil War on Children in Libya**.

By giving your consent, you are signalling that:

1. You read and fully comprehended the respondents' information leaflet.
2. Queries relating to you or your child/children's role(s) have been appropriately responded to.
3. You have wilfully agreed for your family to participate in this study of your own volition.

Name of individual requesting consent Signature of individual requesting consent

Respondents who would like to maintain an element of privacy, can simply use their initials. This is the guidance for research according to the British Psychological Society guidelines for Minimal Standards of Ethical Approval.

_____

Parent's Name:

_____

Parent's signature*

_____ __

Date

PARTICIPANTS' RIGHTS

Participants will be given full details of the research and its purpose, and they will be informed that they do not need to participate unless they want to.

currently, the findings will go a long way to helping other families in a similar situation in the future.

There is no known risk to respondents. The surveys will be collected by me, and teachers can assist children when necessary. If any children become confused or worried about any aspects of the survey, the teachers and I will ensure they get relevant assistance, and can suggest to you the best people to contact if necessary. The same will apply to your child, if you require clarifications or direction for further help, for example referral to the school psychology or child mental health service.

COST, REIMBURSEMENT AND COMPENSATION

Whether you wish to join this research is entirely up to you and your child. You can opt out at any stage until the findings have been analysed, i.e. three months after your participation. Opting not to take part will have no effect on your family's future help or service provision.

CONFIDENTIALITY/ANONYMITY

We will take extra care to secure confidentiality. No real names will be used and all data collected will be kept in a secure place. When coded, the data will be kept on a password-protected computer. Once the data has been collected, it will be coded. The findings will be communicated to relevant education, health and welfare authorities through a report, so that they can help other children and families in the future. No participants will be identified in this or other reports. We will be delighted to send you a copy of the findings if you wish.

TIME COMMITMENT

The research will usually last approximately thirty minutes for parents and approximately the same length of time for children. During their input, children will be alongside their classmates and teacher, and I will be available to assist any of you in completing the survey.

APPENDIX F: Information Sheet for Children

Greenwood Institute of Child Health
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University of Leicester
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T: +44 (0)116 225 2885

Information Letter for Children

What is research? Why is this project being done?

This research aims to understand the effects of civil war on children, and what are protective factors that children use to avoid its harmful impacts and feel stronger, despite such a difficult situation. This could help other children and their families in a similar situation in the future.

The answers you give to our questions will help us to understand how parents, teachers and other people can help children like yourself in the future. It is important to be part in this research, as your views should play a fundamental role in planning better services and supports for children and young people.

Why have I been asked to take part?

We have asked you to help us with our research because of your experience of exposure to civil war. For example, you can understand similar feelings of worries, sadness or anger, and how you can deal with difficult life situations that children face during and after civil war. You also know what would be the best way of helping other children in similar circumstances. That is why you could be involved in putting forward solutions to the problems that concern you and other children.

Did anybody else check that the study is OK to do?

We have got approval from the University of Leicester Research Ethics Committee in the UK and from the Ministry of Education in Libya.

Do I have to take part?

You are free to decide yourself whether you would like to take part in this study. If you do not want,, you do not have to. You can also change your mind at any time before or during the research.

What will happen to me if I take part in the research?

If you decide to help us with our research, I will give you five brief questionnaires that ask you about difficult events you may have been experiencing, the way you have been feeling recently, and the types of help and support you have been using. You do not have to worry about saying the wrong thing, because there are no right or wrong answers to any of the questions. We just want to know about what you think and how you feel, and this includes both positive and negative experiences.

Will taking part upset me?

I will try not to ask you any upsetting questions, but if there any questions that you do not want to answer, you can just tell me or your parent or teacher and you will not have to.

Will joining in help me?

I hope that you will answer all questions, but I cannot promise you that your answer the questions will make you any happier than you are now. However, I hope that the findings of this study can help other children and families in the future.

What if I don't want to do the research anymore?

If you change your mind and decide that you do not want to take part in the research, this is OK. Just tell me that you want to stop to answer questions, and you will not have to answer them anymore.

What if something goes wrong with the project?

If you feel unhappy about filling a questionnaire, then please tell either me, or tell your parent or your teacher. I will be happy to suggest who else might be able to help, if you want me to.

Will anyone else know I'm doing this?

Nobody will see the questionnaires that you fill, except me and my supervisors. No real names will be used and all data collected will be kept in a secure place. Your parents and teacher have already told me that they are happy for me to ask you to fill the questionnaires. The only way that other people will find out that you have been filling the questionnaires, will be if you decide to tell them.

If you have any questions, please feel free to contact me or my supervisor at any time. The contact information is as follows:

Ahmad Farag
PhD Researcher
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You can also contact the supervisor:
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APPENDIX G: Gaza War Traumatic Events Checklist

Gaza war traumatic events checklist

N	War traumatic events	Yes	No
1	Heard shelling of the area by heavy artillery		
2	Heard the sonic sounds of the jetfighters		
3	Watching pictures of mutilated bodies in TV		
4	Forced to move from home to a safer place during the war		
5	Deprivation from water, food, or electricity during the war		
6	Were detained at home during incursion		
7	Destruction of personal belongings during the war		
8	Witnessed firing by tanks and heavy artillery at owns home		
9	Threatened by shooting		
10	Witnessed the shelling and destruction of neighbour home		
11	Heard killing of non-relative		
12	Witnessed the shelling and destruction of owns home		
13	Witnessed firing by tanks and heavy artillery at neighbour home		
14	Threaten of being killed		
15	Heard killing of a relative		
16	Witnessed killing non relative		
17	Witnessed shooting of a friend		
18	Witnessed shooting of a relative		
19	Witnessed killing of a relative		
20	Beaten and humiliated by the army during the war		
21	Threatened to death by being used as human shield to arrest your neighbours by the army		
22	Physical injury due to bombardment of your home		
23	Exposure to burn by bombs and phosphorous bomb		

APPENDIX H: Children's Revised Impact of Event Scale (Horowitz et al., 1979)

C-IES-8

Revised Child Impact of Events Scale

Below is a list of comments made by people after stressful life events. Please tick each item showing how frequently these comments were true for you *during the past seven days.* If they did not occur during that time please tick the 'not at all' box.

Name: ..... Date: .....

		Not at all	Rarely	Some-times	Often
1.	Do you think about it even when you don't mean to?	[ ]	[ ]	[ ]	[ ]
2.	Do you try to remove it from your memory	[ ]	[ ]	[ ]	[ ]
3.	Do you have waves of strong feelings about it	[ ]	[ ]	[ ]	[ ]
4.	Do you stay away from reminders of it (e.g. places or situations)	[ ]	[ ]	[ ]	[ ]
5.	Do you try not talk about it	[ ]	[ ]	[ ]	[ ]
6.	Do pictures about it pop into your mind?	[ ]	[ ]	[ ]	[ ]
7.	Do other things keep making you think about it?	[ ]	[ ]	[ ]	[ ]
8.	Do you try not to think about it?	[ ]	[ ]	[ ]	[ ]

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These instruments are provided free of costs thanks to the generosity of our donors. We are however, very happy to receive donations to continue to develop new methods. If you would like to make a donation *please go to www.childrenandwar.org.*

APPENDIX I: Strengths and Difficulties Questionnaire (SDQ) – (Goodman, (1997)

Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of how things have been for you over the last six months.

Your Name ..... Male/Female

Date of Birth.....

	Not True	Somewhat True	Certainly True
I try to be nice to other people. I care about their feelings	☐	☐	☐
I am restless, I cannot stay still for long	☐	☐	☐
I get a lot of headaches, stomach-aches or sickness	☐	☐	☐
I usually share with others (food, games, pens etc.)	☐	☐	☐
I get very angry and often lose my temper	☐	☐	☐
I am usually on my own. I generally play alone or keep to myself	☐	☐	☐
I usually do as I am told	☐	☐	☐
I worry a lot	☐	☐	☐
I am helpful if someone is hurt, upset or feeling ill	☐	☐	☐
I am constantly fidgeting or squirming	☐	☐	☐
I have one good friend or more	☐	☐	☐
I fight a lot. I can make other people do what I want	☐	☐	☐
I am often unhappy, down-hearted or tearful	☐	☐	☐
Other people my age generally like me	☐	☐	☐
I am easily distracted, I find it difficult to concentrate	☐	☐	☐
I am nervous in new situations. I easily lose confidence	☐	☐	☐
I am kind to younger children	☐	☐	☐
I am often accused of lying or cheating	☐	☐	☐
Other children or young people pick on me or bully me	☐	☐	☐
I often volunteer to help others (parents, teachers, children)	☐	☐	☐
I think before I do things	☐	☐	☐
I take things that are not mine from home, school or elsewhere	☐	☐	☐
I get on better with adults than with people my own age	☐	☐	☐
I have many fears, I am easily scared	☐	☐	☐
I finish the work I'm doing. My attention is good	☐	☐	☐

Your signature ..... Today's date .....

Thank you very much for your help

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APPENDIX J: Impacts of Events Scale-Revised (IES-R) (Weisss and Marmar, (1997)

Revised - Impact of Events Scale

	Below is a list of difficulties people sometimes have after stressful life events. please read each item and then indicate how distressing each difficulty has been for you during the past 7 days or other agreed time:	0 = Not at all	1 = A little	2 = Moderately	A lot = 3	Extremely = 4
a	any reminder brought back feelings about it	0	1	2	3	4
b	I had trouble staying asleep	0	1	2	3	4
c	other things kept making me think about it	0	1	2	3	4
d	I felt irritable and angry	0	1	2	3	4
e	I avoided letting myself get upset when I thought about it or was reminded of it	0	1	2	3	4
f	I thought about it when I didn't mean to	0	1	2	3	4
g	I felt as if it hadn't happened or it wasn't real	0	1	2	3	4
h	I stayed away from reminders about it	0	1	2	3	4
i	pictures about it popped into my mind	0	1	2	3	4
j	I was jumpy and easily startled	0	1	2	3	4
k	I tried not to think about it	0	1	2	3	4
l	I was aware that I still had a lot of feelings about it, but I didn't deal with them	0	1	2	3	4
m	My feelings about it were kind of numb	0	1	2	3	4
n	I found myself acting or feeling like I was back at that time	0	1	2	3	4
o	I had trouble falling asleep	0	1	2	3	4
p	I had waves of strong feelings about it	0	1	2	3	4
q	I tried to remove it from my memory	0	1	2	3	4
r	I had trouble concentrating	0	1	2	3	4
s	reminders of it caused me to have physical reactions	0	1	2	3	4
t	I had dreams about it	0	1	2	3	4
u	I felt watchful and on-guard	0	1	2	3	4
v	I tried not to talk about it	0	1	2	3	4
	Totals					

avoidance subscale (total of e, g, h, k, l, m, q, v divided by 8) =
intrusion subscale (total of a, b, c, f, i, n, p, t divided by 8) =
hyperarousal subscale (total of d, j, o, r, s, u divided by 6) =

Weiss,D.S. & Marmar,C.R. *The impact of event scale-revised.* in Wilson,J.P. & Kean,T.M. (eds.) *Assessing psychcological trauma and PTSD: a practitioner's handbook (ch 15).* N.Y: Guildford, 1995.

www.GetCBT.org

APPENDIX K: 12-item General Health Questionnaire (Goldberg and Williams, (1988)

General Health Questionnaire

(GHQ)

We want to know how your health has been in general over the last few weeks. Please read the questions below and each of the four possible answers. Circle the response that best applies to you. Thank you for answering all the questions.

Have you recently

N	item	not at all	no more than usual	rather more than usual	much more than usual
1	Been able to concentrate on what you're doing				
2	Lost much sleep over worry				
3	Felt you were playing a useful part in things				
4	Felt capable of making decisions about things				
5	Felt constantly under strain				
6	Felt you couldn't overcome your difficulties				
7	Been able to enjoy your normal day-to-day activities				
8	Been able to face up to your problems				
9	Been feeling unhappy and depressed				
10	Been losing confidence in yourself				
11	Been thinking of yourself as a worthless person.				
12	Been feeling reasonably happy, all things considered				

APPENDIX L: Children's Coping Strategies Checklist-Revised (CCSC-R1) (T. A. Ayers and Sandler, 1999)

Children's Coping Strategies Checklist- Revised 1

1-Focused Problem Strategy 24 Items
2-Distractive Strategy 9 Items
3-Avoidance Strategy 12 Items
4-Support Seeking Strategy 9 Items

Note: All items begin with: "When you had problems in the past month…"
Item No Item

1. You thought about what you could do before you did something.
Never [ ] Sometime [ ] Often [ ] Always [ ]
2. You tried to notice or think about only the good things in your life.
Never [ ] Sometime [ ] Often [ ] Always [ ]
3. You tried to ignore it.
Never [ ] Sometime [ ] Often [ ] Always [ ]
4. You told people how you felt about the problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
5. You tried to stay away from the problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
6. You did something to make things better.
Never [ ] Sometime [ ] Often [ ] Always [ ]
7. You talked to someone who could help you figure out what to do.
Never [ ] Sometime [ ] Often [ ] Always [ ]
8. You told yourself that things would get better.
Never [ ] Sometime [ ] Often [ ] Always [ ]
9. You listened to music.
Never [ ] Sometime [ ] Often [ ] Always [ ]
10. You reminded yourself that you are better off than a lot of other kids.
Never [ ] Sometime [ ] Often [ ] Always [ ]
11. You daydreamed that everything was okay.
Never [ ] Sometime [ ] Often [ ] Always [ ]
12. You went bicycle riding.
Never [ ] Sometime [ ] Often [ ] Always [ ]
13. You talked about your feelings to someone who really understood.
Never [ ] Sometime [ ] Often [ ] Always [ ]
14. You told other people what you wanted them to do.
Never [ ] Sometime [ ] Often [ ] Always [ ]
15. You tried to put it out of your mind.
Never [ ] Sometime [ ] Often [ ] Always [ ]
16. You thought about what would happen before you decided what to do.
Never [ ] Sometime [ ] Often [ ] Always [ ]
17. You told yourself that it would be OK.
Never [ ] Sometime [ ] Often [ ] Always [ ]
18. You told other people what made you feel the way you did.
Never [ ] Sometime [ ] Often [ ] Always [ ]

19. You told yourself that you could handle this problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
20. You went for a walk.
Never [ ] Sometime [ ] Often [ ] Always [ ]
21. You tried to stay away from things that made you feel upset.
Never [ ] Sometime [ ] Often [ ] Always [ ]
22. You told others how you would like to solve the problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
23. You tried to make things better by changing what you did.
Never [ ] Sometime [ ] Often [ ] Always [ ]
24. You told yourself you have taken care of things like this before.
Never [ ] Sometime [ ] Often [ ] Always [ ]
25. You played sports.
Never [ ] Sometime [ ] Often [ ] Always [ ]
26. You thought about why it happened.
Never [ ] Sometime [ ] Often [ ] Always [ ]
27. You didn't think about it.
Never [ ] Sometime [ ] Often [ ] Always [ ]
28. You let other people know how you felt.
Never [ ] Sometime [ ] Often [ ] Always [ ]
29. You told yourself you could handle whatever happens.
Never [ ] Sometime [ ] Often [ ] Always [ ]
30. You told other people what you would like to happen.
Never [ ] Sometime [ ] Often [ ] Always [ ]
31. You told yourself that in the long run, things would work out for the best.
Never [ ] Sometime [ ] Often [ ] Always [ ]
32. You read a book or magazine.
Never [ ] Sometime [ ] Often [ ] Always [ ]
33. You imagined how you'd like things to be.
Never [ ] Sometime [ ] Often [ ] Always [ ]
34. You reminded yourself that you knew what to do.
Never [ ] Sometime [ ] Often [ ] Always [ ]
35. You thought about which things are best to do to handle the problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
36. You just forgot about it.
Never [ ] Sometime [ ] Often [ ] Always [ ]
37. You told yourself that it would work itself out.
Never [ ] Sometime [ ] Often [ ] Always [ ]
38. You talked to someone who could help you solve the problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
39. You went skateboard riding or roller skating.
Never [ ] Sometime [ ] Often [ ] Always [ ]
40. You avoided the people who made you feel bad.
Never [ ] Sometime [ ] Often [ ] Always [ ]
41. You reminded yourself that overall things are pretty good for you.
Never [ ] Sometime [ ] Often [ ] Always [ ]
42. You did something like video games or a hobby.
Never [ ] Sometime [ ] Often [ ] Always [ ]
43. You did something to solve the problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
44. You tried to understand it better by thinking more about it.

Never [ ] Sometime [ ] Often [ ] Always [ ]
45. You reminded yourself about all the things you have going for you.
Never [ ] Sometime [ ] Often [ ] Always [ ]
46. You wished that bad things wouldn't happen.
Never [ ] Sometime [ ] Often [ ] Always [ ]
47. You thought about what you needed to know so you could solve the Problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
48. You avoided it by going to your room.
Never [ ] Sometime [ ] Often [ ] Always [ ]
49. You did something in order to get the most you could out of the situation.
Never [ ] Sometime [ ] Often [ ] Always [ ]
50. You thought about what you could learn from the problem.
Never [ ] Sometime [ ] Often [ ] Always [ ]
51. You wished that things were better.
Never [ ] Sometime [ ] Often [ ] Always [ ]
52. You watched TV.
Never [ ] Sometime [ ] Often [ ] Always [ ]
53. You did some exercise.
Never [ ] Sometime [ ] Often [ ] Always [ ]
54. You tried to figure out why things like this happen
Never [ ] Sometime [ ] Often [ ] Always [ ]

APPENDIX M: Perceived Social Support by Friends and Family (Procidano and Heller, 1983)

Perceived Social Support from Friends and Family

(Procidano & Heller, 1983)

The statements that follow refer to feelings and experiences that occur to most people at one time or another in their relationships with friends. For each statement there are three possible answers: Yes, No, or Don't Know. Please ***check*** *(✓) the box that best represents your answer. If you are unsure about how to answer a particular question, please give the best answer you can.*

	Yes	No	Don't Know
SS1. My friends give me the moral support I need.			
SS2. Most other people are closer to their friends than I am.			
SS3. My friends enjoy hearing about what I think.			
SS4. Certain friends come to me when they have problems or need advice.			
SS5. I rely on my friends for emotional support.			
SS6. If I felt that one or more of my friends were upset with me, I'd just keep it to myself.			
SS7. I feel that I'm on the fringe in my circle of friends.			
SS8. There is a friend I could go to if I were just feeling down, without feeling funny about it later.			
SS9. My friends and I are very open about what we think about things.			
SS10. My friends are sensitive to my personal needs.			
SS11. My friends come to me for emotional support.			
SS12. My friends are good at helping me solve problems.			
SS13. I have a deep sharing relationship with a number of friends.			
SS14. My friends get good ideas about how to do things or make things from Me.			
SS15. When I confide in friends, it makes me feel uncomfortable.			
SS16. My friends seek me out for companionship.			
SS17. I think that my friends feel that I'm good at helping them solve problems.			
SS18. I don't have a relationship with a friend that is as intimate as other people's relationships with friends.			
SS19. I've recently gotten a good idea about how to do something from a friend.			
SS20. I wish my friends were much different.			

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*The statements that follow refer to feelings and experiences that occur to most people at one time or another in their relationships with their families. For each statement there are three possible answers: Yes, No, or Don't Know. Please **check (✓)** the box that best represents your opinion. If you are unsure about how to answer a particular question, please answer it to the best of your ability.*

	Yes	No	Don't Know
SS21. My family gives me the moral support I need.			
SS22. I get good ideas about how to do things or make things from my family.			
SS23. Most other people are closer to their family than I am.			
SS24. When I confide in the members of my family who are closest to me, I get the idea that it makes them uncomfortable.			
SS25. My family enjoys hearing about what I think.			
SS26. Members of my family share many of my interests.			
SS27. Certain members of my family come to me when they have problems or need advice.			
SS28. I rely on my family for emotional support.			
SS29. There is a member of my family I could go to if I were just feeling down, without feeling funny about it later.			
SS30. My family and I are very open about what we think about things.			
SS31. My family is sensitive to my personal needs.			
SS32. Members of my family come to me for emotional support.			
SS33. Members of my family are good at helping me solve problems.			
SS34. I have a deep sharing relationship with a number of members of my family.			
SS35. Members of my family get good ideas about how to do things or make things from me.			
SS36. When I confide in members of my family, it makes me uncomfortable.			
SS37. Members of my family seek me out for companionship.			
SS38. I think that my family feels that I'm good at helping them solve problems.			
SS39. I don't have a relationship with a member of my family that is as close as other people's relationships with family members.			
SS40. I wish my family were much different.			

Thank you for participating in this important research. Your answers will help us to have a better understanding of what it is like to live with diabetes.

Please return the questionnaire in the postage paid envelope. Again, our thanks

APPENDIX N: Maximum Likelihood Extraction with Direct Oblimin Rotation of the GHQ items

IES-R item	Pattern Matrix	
	Factor 1	**Factor 2**
Been losing confidence in yourself	.829	
Been thinking of yourself as a worthless person.	.649	
Felt constantly under strain	.649	
Felt you were playing a useful part in things	.642	
Been feeling unhappy and depressed	.611	
Been able to enjoy your normal day-to-day activities	.710	
Felt capable of making decisions about things	.650	
Felt you couldn't overcome your difficulties	.605	
Lost much sleep over worry		
Been able to concentrate on what you're doing		.765
Been feeling reasonably happy, all things considered		.599
Been able to face up to your problems	.661	.511

APPENDIX O: Maximum Likelihood Extraction with Direct Oblimin Rotation of the Gaza traumatic events checklist

Gaza- item	Factors			
	F-1	F-2	F3	F4
Exposure to burn by bombs and phosphorous bomb			0.655	
Threatened to death by being used as human shield to arrest your neighbours by the army			.724	
Physical injury due to bombardment of your home			.831	
Witnessed shooting of a relative				
Threaten of being killed	.633			
Witnessed killing of a relative				-.42
Threatened by shooting	614.			
Witnessed killing non relative	572.			
Beaten and humiliated by the army during the war	464.			
Witnessed firing by tanks and heavy artillery at neighbour home	.432			
Destruction of personal belongings during the war				
Witnessed the shelling and destruction of neighbour home				.71
Heard killing of a relative	.418			
Witnessed shooting of a friend	.448			
Forced to move from home to a safer place during the war	.538			
Were detained at home during incursion				.32
Witnessed firing by tanks and heavy artillery at owns home				-54
Witnessed the shelling and destruction of owns home				-.42
Heard killing of non-relative				-.52
Heard shelling of the area by heavy artillery	.824	.808		
Heard the sonic sounds of the jetfighters		.854		
Watching pictures of mutilated bodies in TV		.926		
Deprivation from water, food, or electricity during the war				.339

APPENDIX P: Maximum Likelihood Extraction with Direct Oblimin Rotation of the Perceived Social Support from Friends

	Factors	
Friend support-item	**F-1**	**F-2**
My friends come to me for emotional support.	.690	
My friends and l are very open about what we think about things.	.637	
I have recently gotten a good idea about how to do something from a friend.	.607	
Certain friends come to me when they have problems or need advice.	.797	
My friends enjoy hearing about what I think.	.594	
My friends give me the moral support I need.	.580	
There is a friend I could go to if I were just feeling down, without feeling funny about it later.	.577	
My friends are good at helplng me solve problems.	.485	
I think that my friends feel that I am good at helping them solve problems.	.425	
If i felt that one or more of my friends were upset with me, I would just keep it to myself.	-.455	
I rely on my friends for emotional support.	.430	
My friends are sensitive to my personal needs.	.419	
I do not have a relationship wlth a friend that is as intimate as other people's relationships with friends.		.784
Most other people are closer to their friends than I am.		.659
I wish my friends were much different.		.600
When I confide in friends, it makes me f'eel uncomfortable.		.597
My friends get good ideas about how to do things or make things from Me.	.477	.383
My friends seeK me out for companronshtp.		-.327

APPENDIX Q: Maximum Likelihood Extraction with Direct Oblimin Rotation of the Perceived Social Support from Family

Family support-item	Factor F-1	F-2	F-3
I get good ideas about how to do things or make things from my family.			.336
I have a deep sharing relationship with a number of members of my family.		.619	
Members of my family are good at helping me solve problems.	.592		
My family gives me the moral support I need.	.773		
I rely on my family for emotional support.		.727	
Members of my family get good ideas about how to do things or make things from me.		.424	
I wish my family were much different.			.741
When I confide in members of my family, it makes me uncomfortable.			.771
I don't have a relationship with a member of my family that is as close as other people's relationships with family members.		.406	
There is a member of my family I could go to if I were just feeling down, without feeline funny about it later.		.403	
Most other people are closer to their family than I am.			.662
When I confide in the members of my family who are closest to me, I get the idea that it makes them uncomfoftable.	.301		
I think that my family feels that I'm good at helping them solve problems.	.351		.737
Members of my family come to me for emotional support.	.471		
Members of my family seek me out for companionship.			
Certain members of my family come to me when they have problems or need advice.	.369		
My family enjoys hearing about what I think.	.354		

APPENDIX R: Maximum Likelihood Extraction with Direct Oblimin Rotation of the Coping Strategies Checklist - Revised

	Factors			
Coping Strategies Checklist – Revised- items	**F-1**	**F-2**	**F-3**	**F-4**
You tried to stay away from things that made you feel upset.		.960		
You tried to stay away from the problem.		.951		
You tried to put it out of your mind.		.920		
You daydreamed that everything was okay.		.899		
You tried to ignore it.		.895		
You reminded yourself that you are better off than a lot of other kids.	.787			
You thought about what you could do before you did something	.779			
You reminded yourself that you knew what to do.	.771			
You tried to make things better by changing what you did.	.762			
You did something to solve the problem.	.761			
You tried to notice or think about only the good things in your life.	.850			
You did something to make things better.	.741			
You thought about what would happen before you decided what to do.	.733			
You told yourself that in the long run, things would work out for the best.	.728			
You tried to figure out why things like this happen	.727			
You thought about what you could learn from the problem.	.722			
You thought about which things are best to do to handle the problem.	.715			
You told yourself that it would be OK.	.710			
You told yourself that things would get better.	.701			
You told yourself you could handle whatever happens.	.657			
You told yourself you have taken care of things like this before.	.650			
You reminded yourself that overall things are pretty good for you.	.638			
You told yourself that you could handle this problem.	.636			
You thought about why it happened.	.566			
You told yourself that it would work itself out.	.499			
You reminded yourself about all the things you have going for you.	.313			
You did some exercise.				.900
You tried to understand it better by thinking more about it.				.870
You wished that bad things wouldn't happen.				.817
You didn't think about it.	.400			
You told people how you felt about the problem.			.738	
You talked to someone who could help you figure out what to do.			.680	
You talked about your feelings to someone who really understood.			.630	
You told other people what you would like to happen.			.670	
You talked to someone who could help you solve the problem.			.855	
You told others how you would like to solve the problem.			.745	
You told other people what made you feel the way you did.			.901	
You let other people know how you felt.			.862	