AMERICAN UNIVERSITY OF BEIRUT

# THE EFFECTIVENESS OF PARENTING INTERVENTIONS ON THE MENTAL HEALTH AND WELLBEING OF CHILDREN AND ADOLESCENTS AFFECTED BY ARMED CONFLICT: A SYSTEMATIC REVIEW AND META-ANALYSIS

by
LANA HASSAN TOUFAILI

A thesis
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for the degree of Master of Arts
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Approved by:

| | |
|---|---|
| Dr. Tania Bosqui, Assistan Professor<br>Department of Psychology | Advisor |
| Dr. Maliki Ghossainy, Former Assistan Professor<br>Department of Psychology | Member of Committee |
| Dr. Ghena Ismail. Assistant Professor<br>Department of Psychology | Member of Committee |

Date of thesis defense: April 26, 2021

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# ABSTRACT
# OF THE THESIS OF

Lana Hassan Toufaili for Master of Arts
Major: Clinical Psychology

Title: The Effectiveness of Parenting Interventions for the Mental Health and Wellbeing of Children and Adolescents Affected by Armed Conflict: A Systematic Review and Meta-Analysis

Objectives: Parents have been found to serve as protective factors for children, highlighting the potential importance of parenting interventions in mitigating the detrimental effects of armed conflict on children's mental health and well-being. However, no known study has systematically reviewed the evidence for the effectiveness of parenting interventions for children and adolescents living in areas affected by conflict.

Methods: The aim of this systematic review was to establish the effectiveness of parenting interventions for children living in conflict-affected regions, and to evaluate the role of mediating and moderating factors. A systematic search was conducted following Cochrane and PRISMA guidelines, using three databases. Included in the meta-analysis were any experimental interventions and comparator interventions conducted in any region affected by conflict at the time of data collection that had child mental health and psychosocial outcomes.

Results: Out of 6,118 publications screened, 3 studies were included. Improvements were found across aggression, parent-child interactions, and maternal PTSD symptoms. Non-significant improvements were found across harsh parenting behaviors, positive behavior management strategies, psychologists' observations of parenting communication and of children's problem behaviors and positive behaviors, children's cognitive and emotional wellbeing, children's hyperactivity and psychosocial functioning and perceived familial support. A meta-analysis for depressive symptoms found no significant effect for comparable parenting interventions.

Conclusions: This review found mixed evidence based on limited studies, and contrary to good evidence of effectiveness in past reviews of parenting interventions in other country contexts. Given the widespread use and potential utility of such interventions as shown in previous literature, urgent improvements in effectiveness studies in these settings is required.

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# CHAPTER I

# INTRODUCTION

There has been an increase in the number of areas affected by armed conflict worldwide over the past 20 years, with the most significant casualties being in Syria, Iraq, Yemen, and sub-Saharan Africa (Charlson et al., 2019). Conflict-affected areas are either regions that have previously been subjected to armed violence with remaining social and political instabilities, or regions that are currently undergoing violence between two or more armed groups. Armed violence exists in the form of international or national conflict that involves a resort to weapons (ICRC, 2015). Some individuals exposed to armed violence remain in the countries affected by conflict, are internally displaced, or are displaced into other countries. For the purposes of this review, we will focus on populations who are living in an area currently affected by conflict, or who are internally displaced.

Armed conflicts have direct and indirect impact children's cognitive, behavioral and emotional functioning. Recent reports have shown that up to 250 million children are internally displaced in post-conflict areas, while 32.5 million children are displaced crossing borders worldwide (UNHCR, 2016). Some researchers report higher prevalence rates of mental health problems across children living in conflict-affected areas, with around 50% meeting criteria for post-traumatic stress disorder, 43% rate of anxiety and 27% rate depression among children exposed to armed conflict (Kadir, Pitterman, & Goldhagen, 2018). Children affected by conflict have been shown to have higher prevalence rates of cognitive problems such as attention and concentration, social and behavioral problems such as aggression and withdrawal, and emotional

problems such as hopelessness, frustration and fear (Hassan, Bahloul, Ventevogel & Kirmayer, 2016).

War trauma refers to the exposure to a life threat due to armed violence, as well as a threat to others, witnessing violence, loss of loved ones, and displacement from the country of origin (Pedersen, 2019). From one side, armed conflict has a negative impact on the child's mental health directly via the child's own exposure to war trauma (Chrisman and Dougherty, 2014). From the other side, armed conflict has been shown to have an indirect effect on children's mental health by means of affecting the child's family environment. Families affected by conflict are more prone to develop familial stress, punitive parenting, and domestic violence. Such factors are significant predictors of child and adolescent mental disorders, and are exacerbated by exposure to chronic daily stressors – including the ill-health of loved ones, lack of stability due to displacement, financial difficulties, poor access to school and health care, victimization and discrimination, lack of safety and fear around the uncertain future (Miller et al., 2009).

Parental and family support have been shown to be significant protective factors in fostering the resilience of children living in conflict- affected areas, and several interventions have been developed to enhance parenting skills in areas affected by armed conflict (Reed et al., 2012). Given the devastating armed conflicts worldwide and its detrimental effect on child and adolescent mental health, in addition to the salience of the child's family environment and parenting techniques in enhancing children's resilience, parenting interventions have the potential to alleviate some of the impact of armed conflict on children's mental health. Reviews on parenting interventions in non-conflict affected countries have found promising evidence of effectiveness, but no

known review has ever studied the effectiveness of parenting interventions for families living in areas affected by conflict.

Therefore, this systematic review aims to establish the effectiveness of parenting interventions for children living in conflict-affected regions in improving child mental health outcomes, as well as their mediating and moderating factors. The limitations and gaps in the evidence-base will also be highlighted, to inform future research and enhance the quality of parenting interventions targeting conflict-affected populations.

# CHAPTER II

# LITERATURE REVIEW

## A. Theoretical Framework of Parenting Interventions

According to the behavioral modification model developed by Ajzen and Fishien (1980), parenting interventions work by targeting parental attitudes, knowledge, and practices to improve child mental health. Parental attitudes refer to the perspectives in which parents view parenting or child development, such as parental roles and responsibilities. Parental knowledge refers to the facts and skills that parents gain through experience or through education. Finally, parental practice refers to the parenting behaviors that parents engage in that are child-rearing and shape the child's behavior.

According to this model, attitudes towards child-rearing activities determine parents' susceptibility to use knowledge and transform it into practice (Ajzen and Fishien, 1980). Therefore, this model suggests that modifying and solidifying parental attitudes towards parenting is important to achieve change, by enhancing parental knowledge and parental self-efficacy. Accordingly, all three factors – parental attitudes, knowledge, and practices – are theoretically intertwined and reinforce one another (Breiner et al., 2016).

Parenting interventions are thought to work by targeting parental knowledge, attitudes, and practices to improve child mental health. Several studies have found direct links between the three factors of the behavioral modification model and children's mental health outcomes. Researchers have found a negative correlation between level of parental knowledge and conduct problems (Rowe et al., 2015), and

internalized problems such as child anxiety and depression (Winter et al., 2012). Other studies have examined the role of parental attitudes in enhancing involvement of parents in their children's life. In a study by Murry and Brody (1999), parental self-efficacy was shown to correlate with children's self-regulation, social skills, and cognitive skills. Furthermore, improved parenting practices, including teaching children self-regulation skills and independence, have been shown to be associated with higher emotional, behavioral, and social competence in children, including lower levels of internalizing and externalizing traits, relationship building skills, and prosocial behaviors (Osofsky & Fitzgerald, 2000).

In practice, interventions based on this model can include parenting capacity building, teaching parenting skills, improving the parent-child relationship, parental emotion management, group discussions, educational workshops that teach positive communication styles, and role-playing based on cognitive behavioral strategies to model parenting skills (Pedersen et al., 2019). Interventions can be delivered to families through home visits, or parents' groups in community settings or specific clinics.

### B. Effectiveness of Parenting Interventions

Parenting interventions have been widely studied among high, income countries, and increasingly in low- and middle-income countries, with promising results for improving a range of child mental health and protection outcomes (Chen & Chan, 2016).

### *1. Parenting Interventions in High-Income Countries*

Several systematic reviews have studied the effectiveness of parenting interventions in high income countries. Positive outcomes have been consistently found for both parents' and children's mental health. A review conducted by Barlow, Johnston, Kendrick, Polnay, and Stewart-Brown (2006) highlighted the effectiveness of teaching parenting skills in decreasing physical forms of discipline and maltreatment, and fostering effective discipline and positive communication, in high income countries. Another review found that parenting skills interventions lowered familial distress and improved maternal mental health (Barlow, Smailagic, Huband, Rollof & Bennet, 2012). Additionally, two reviews found parenting interventions effective in reducing children's aggression and delinquent behavior (Furlong et al., 2012; Piquero et al., 2008).

### *2. Parenting Interventions in Low- and Middle-Income Countries*

Despite the well-established effectiveness of parenting interventions in high income countries, the evidence in low- and middle-income countries is less clear, particularly in humanitarian settings. This is in part due to greater challenges in health and research infrastructure. A study conducted by Patel, Kieling, Maulik, and Divan (2012) highlighted a lack of rigorous research methodology in low resource settings, in addition to families' lack of access to mental health care. In Knerr, Gardner, and Cluver's (2013**)** review of parenting interventions in low- and middle-income countries, all included studies found that parenting interventions improved parent-child interactions, reduced harsh punishment, and increased parental knowledge about adaptive parenting. Most of the studies were reported to have weak internal validity due to small sample sizes, incomplete data, self-report outcomes, and the use of instruments

with poor reliability and validity. Only two studies, Cooper et al. (2009) and Rahman et al. (2009), out of thirteen, were found to have minimal bias and an acceptable sample size. Another review and meta-analysis of randomized controlled trials (RCTs) on parenting programs in low, middle- and high-income countries found that parenting skills interventions were associated with decreased child maltreatment in at-risk groups (Chen and Chan, 2016). Interventions involved increasing interaction between parent and child, enhancing the ability to understand the signals given by the child, and reducing unhealthy parental attitudes towards parenting. Finally, a review conducted by Pedersen et al. (2019) explored the effect of parenting and family skills interventions on child mental health outcomes in low- and middle-income countries. The study included both, RCTs, non RCTs, and pre to post studies of interventions and included a broad range of difficulties including autism and obsessive-compulsive disorder. Out of 14 studies on parenting interventions, 11 studies showed improvements in externalizing behavioral outcomes, 4 studies showed cognitive improvements, and 6 studies showed improvements in emotional outcomes. In addition, several parental outcomes were reported in two studies, showing enhanced parent self-esteem, parenting practices, and parenting knowledge.

Many of the studies just described included populations that were subjected to a broad range of stressors, including daily stressors, financial difficulties, natural disasters, or armed conflict. However, it is important to note that the individual's experience of such difficulties varies widely from one type of stressor to the other. Erikson (1994) distinguishes between man-made disasters and natural disasters – while the latter just "happens", has limits, and thus might create post-disaster euphoria, the former is preventable, has no limits (the threat sustains due to the ongoing presence of

the perpetrators) and thus is associated more with self-blame, external locus of control, and uncertainty. Therefore, one cannot equate the experience of armed conflict to the experience of a natural disaster. In addition, reviews on parenting or family interventions in low- and middle-income countries (Kieling, Maulik & Divan 2012; Knerr, Gardner & Cluver's, 2013; Chen & Chan, 2016), may have missed relevant studies specifically within armed conflict settings, due to their broad search terms and inclusion criteria, and will certainly have missed armed conflicts in high income countries.

Given the strong evidence for the effectiveness of parenting interventions in high income countries, and promising evidence in low- and middle-income countries, it can be reasonably expected for such interventions to be effective in conflict affected settings. However, the context of armed conflict settings is considerably different, with broader community and focused interventions required, and with basic services and security an integral part of mental health care. Therefore, the broader context of psychosocial interventions for children affected by war, and how parenting interventions fit within it, will be discussed below.

### C. The Inter-Agency Standing Committee Guidelines for Mental Health and Psychosocial Support in Emergencies

Psychosocial interventions are broadly defined as "interpersonal or informational activities, techniques, or strategies that target biological, behavioral, cognitive, emotional, interpersonal, social, or environmental factors with the aim of improving health functioning and well-being" (Medicine, Gonzalez & Butler, 2015), and include programs of care that promote wellbeing, prevent mental ill health, and treat

mental disorders at various levels. The Inter-Agency Standing Committee (IASC) guidelines on mental health and psychosocial interventions in emergencies, underlines the importance of having a hierarchical and multi-layered pyramid of support that is delivered to different levels of the social and health system (IASC, 2007). The pyramid displayed in Figure 1, shows that the framework is divided into four main tiers: 1) basic services and security which are universal and delivered to the population as a whole, 2) community non-specialized activities to enhance protective factors, 3) focused non-specialized support for at-risk groups, and 4) specialized support for individuals with mental disorders. Parenting interventions are most commonly delivered within the tier 2 and 3 levels, to enhance protective factors at the community level, and address at-risk groups.

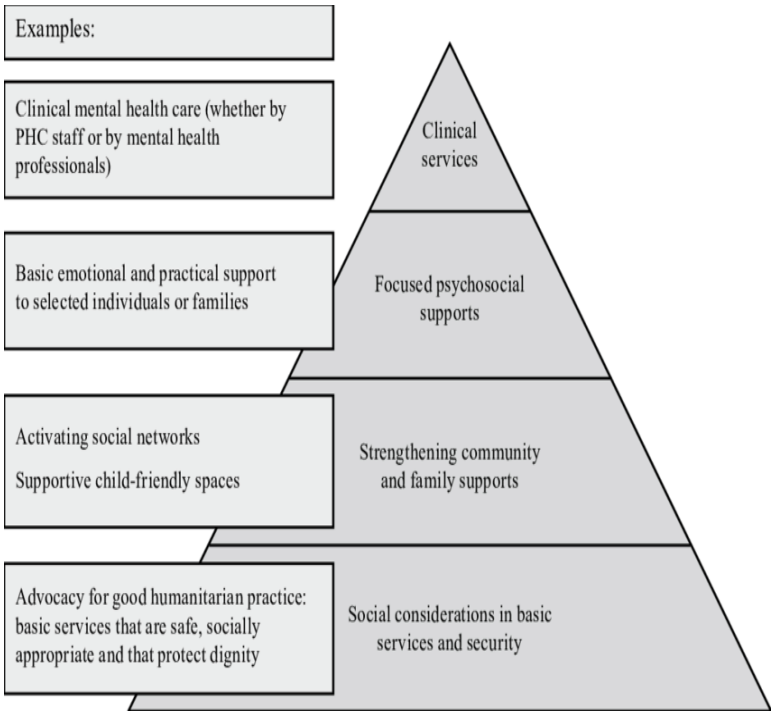


*Figure 1: The IASC (2007) Pyramid*

## D. Parenting Interventions in Reviews of Psychosocial Interventions Delivered to Children Affected by Armed Conflict

Several reviews have attempted to investigate the effectiveness of studies delivering interventions that target the psychosocial wellbeing of children affected by war, with 8 relevant reviews conducted in the literature. These reviews will be examined with regard to their inclusion and findings on parenting interventions.

Out of the 8 reviews, 2 reviews conducted by Ager, Metzler, Vojta, and Savage (2013) and Gillies et al (2016) did not report any parenting interventions, whereas 5 reviews, conducted by Tol et al. (2011), Jordans et al. (2010), Jordans, Pigott, and Tol (2016), O'Sullivan, Bosqui, and Shannon (2016), and Betancourt, Meyers-Ohki, Charrow and Tol (2013) did find parenting interventions, and the latter 4 of these were focused on war affected populations. Only 1 review focused on family and parenting interventions, but in the wider context of low- and middle-income countries.

Ager, Metzler, Vojta, and Savage (2013) aimed to investigate the effectiveness of child friendly spaces (CFS) in enhancing the psychosocial wellbeing of children living in emergency contexts such as conflict affected areas and areas affected by natural disasters. The review found that CFS's improved mood, decreased in externalizing behavior, and increased psychosocial functioning. However, none of the programs included a parental intervention. In Gillies et al.'s (2016) review, the authors assessed the effectiveness of psychological therapies in reducing PTSD symptoms and cognitive, emotional, and behavioral outcomes of children and adolescents who had experienced trauma. Most interventions reported were individualized interventions such as CBT, play therapy, eye movement and desensitization and reprocessing (EMDR), and narrative therapy and exposure therapy (NET). Four studies reported had included

family therapy and school and community-based interventions. The results showed that children who had undergone a psychological intervention had shown lower levels of PTSD symptoms as compared to a control group. A parenting component was included across 5 studies as part of other interventions (such as parental psychoeducation as part of trauma focused therapy). However, no studies included parenting interventions in their own right.

Tol et al. (2011) explored the effectiveness of psychosocial interventions in humanitarian contexts. Most studies reported were individualized interventions, CFSs and community-based interventions. Group psychotherapy and school-based support were shown to be the most beneficial in decreasing PTSD and internalizing symptoms across children and adolescents living in humanitarian contexts. In this review, only one study including a parenting intervention, which was found to be effective in reducing maternal mental health and children's psychosocial functioning for war-affected families in Bosnia. It is important to note that this review did not make a distinction between different kinds of traumatic experiences – studies included both exposed to man-made disasters (including armed conflict) and natural disasters.

Four systematic reviews studied the effectiveness of psychosocial interventions specifically for children affected by conflict. The interventions included school and community-based interventions such as creative-expressive approaches and counseling and family care targeting distress, in addition to individualized interventions such as narrative therapy, cognitive behavioral therapy, group interpersonal therapy, and parent-child interaction therapy (PCIT). Jordans et al. (2010) reported one study that delivered parent-child therapy that was shown to be effective in improving psychosocial functioning among children who were experiencing or had experienced war in Bosnia.

Additionally, Jordans, Pigott, and Tol (2016) documented several studies involving family interventions, while also reporting one study about a psychoeducation-based parenting intervention delivered to children affected by conflict in Burundi. It was shown to be correlated with lower levels of aggression and depressive symptoms for children. Due to the promising effects reported by the two studies conducted in Bosnia and Burundi, both reviews highlight the gap in the literature concerning parenting interventions and delineate the importance of further exploring parenting interventions in areas affected by conflict. O'Sullivan, Bosqui, and Shannon's (2016) reported on two studies on family-focused interventions, such as enhancing familial interactions by teaching life skills. However, only one parenting intervention was reported, duplicating the finding by Tol et al., (2011). Lastly, Betancourt, Meyers-Ohki, Charrow, and Tol's (2013) review included a number of interventions with parental involvement, predominantly family-level interventions based on group family discussion and support. They found that such interventions were effective in reducing PTSD, internalizing and externalizing traits. Only one parenting intervention was reported, duplicating the finding by Jordan's et al (2009).

These reviews have a number of limitations for drawing conclusions about parenting interventions effectiveness for war affected children and families. In the first three reviews conducted by Ager, Metzler, Vojta, and Savage (2013), and Gillies et al. (2016), Tol et al (2011), the authors' focus in the search terms was not on the context of armed conflict only (i,e. including different types of disasters), but rather on low and middle income countries, or humanitarian contexts in general. This might have reduced the ability of the review to pick up additional studies that have looked into parenting interventions delivered to children affected by war. Additionally, in the reviews

conducted by Gillies et al. (2016), Tol et al. (2011), Jordans et al. (2010), Jordans, Pigott, and Tol (2016), O'Sullivan, Bosqui, and Shannon (2016), and Betancourt, Meyers-Ohki, Charrow and Tol (2013), the reviews broadly included psychosocial interventions for children in low- and middle-income countries affected by war. Most of the authors did not use "parenting" in their search terms, but rather broadened the search to "psychosocial". Therefore, since the authors' focus is on psychosocial interventions in general, the search strategy is not designed to pick up on all the studies available on specific parenting interventions, and the ability to select such studies in the literature is thus hindered. Finally, parental involvement in the context of family or individual interventions, was reported in the reviews conducted by Jordans et al. (2010), Jordans, Pigott, and Tol (2016) O'Sullivan, Bosqui, and Shannon (2016), and Betancourt, Meyers-Ohki, Charrow and Tol (2013), but this is not equivalent to parenting interventions. There are significant differences in the theoretical underpinnings of the two types of intervention. The former involves the parents and the whole family unit, and focuses on systemic change in families and their ability to cope with adversity. However, the latter targets parents only, and focuses on teaching parenting skills, parental emotional management, and relationship building (Pedersen, 2019).

Pedersen et al. (2019) is the only known review to have specifically searched for parenting interventions in low- and middle-income countries, with many studies conducted in humanitarian settings. Most parenting interventions included parental psychoeducation or parent-delivered behavioral interventions, and they found a decrease in conduct problems, emotional dysregulation, anxiety, depression, and concentration difficulties. It also identified the elements that contribute to enhancing the interventions' positive effects, such as caregiver psychoeducation, caregiver coping,

accessibility promotion, building insight, and teaching social skills. However, the review did not focus its search terms on populations affected by armed conflict, and it excluded high-income countries, some of which are affected by war. For instance, Northern Ireland is a high-income country that endured a 30-year civil conflict known as 'The Troubles,' with ongoing sectarianism and political instability (Borsuk, 2016). Therefore, a review of the effectiveness of parenting interventions across all armed conflict contexts is needed.

According to the literature, there is strong evidence for the effectiveness of interventions in third and fourth tiers of the IASC model (focused and specialized support). However, there remains a gap for first and second tier interventions (basic services and community support), within which most parenting interventions are delivered. A review of the quality of evidence by Patel, Minas, Cohen & Prince (2014) showed that the number of RCTs conducted was highest for tier 4, with a limited number at 1 and 2. This highlights the importance of a critical holistic evaluation of the evidence for interventions in these tiers, including parenting interventions.

### E. Mediators and Moderators of Change

A widespread limitation across studies is the absence of a clear mechanism of change for psychosocial interventions. In other words, mediating variables between the intervention and its outcomes remain poorly understood. According to Kazdin et al. (2003), very few studies have investigated the process by which psychological interventions for children and adolescent mental health lead to change. In a review conducted by Weersing and Weisz (2002), only 9% of 67 studies on treatments of youth anxiety, disruptive behavior, and depression measured statistical mediation of child and

adolescent interventions. Our limited understanding of mechanisms or mediators of change has implications for the implementation of interventions, when we are not sure which part of the intervention is useful, and for whom. In addition, the ability of future research to maximize effects of the treatment is hindered due to the absence of identifiable active ingredients. A review of mechanisms of change for psychosocial interventions in armed conflict found poor quality evidence, particularly for tier 1 and 2 of the IASC model (Bosqui & Marshoud, 2018). They found moderate evidence for some mechanisms, including therapeutic rapport, familial and parental capacity building, strengthening the family unit, and teaching problem-solving skills (Bosqui & Marshoud, 2018). Brown et al., (2017) reviewed common treatment elements for effective psychosocial intervention, and identified common elements of psychoeducation, building insight and rapport, and the use of cognitive and narrative techniques. However, these could not be tested through a mediation analysis. Therefore, a sub-analysis of mediators of change will be included in this review.

It is hypothesized that the three factors included in the behavioral modification model for parenting interventions specifically, parental attitudes, parental knowledge, and practices, will be specific mediators or mechanisms of change in parenting interventions delivered to children and adolescents affected by armed conflict.

Another gap in the literature is a limited understanding of the moderating factors, including characterisitcs of the participant, therapist, intervention, or setting, that may impact on the intervention outcomes. Only one review conducted by Brown et al. (2017) explored the moderation effects of age and gender. They found poor quality evidence for age, but higher levels of improvements on sibling rivalry and depressive symptoms for females, and higher levels of improvements across PTSD symptoms and

loneliness for males. Therefore, moderators of change will also be included in this review to help us better understand factors associated with increased well-being from different kinds of parenting interventions.

## F. Rationale

Several reviews have explored the effectiveness of psychosocial interventions for children living in conflict regions. However, there is a scarcity in reviews of studies involving parenting interventions for this population. Most of the reviews have included psychosocial interventions in general, thus the ability to detect studies on parenting interventions is hindered, or reviews have broadly included low- and middle-income country contexts, rather than areas affected by conflict.

Therefore, there remains a gap in the field concerning the extent to which parenting interventions are effective for children and adolescents living in regions affected by armed conflict, and the mechanisms of change and the moderators of such interventions.

This review therefore aimed to establish the effectiveness of parenting interventions among children living in high, middle, and low-income countries affected by war or armed conflict. Additionally, the review aimed to identify the mechanisms and moderators of change for parenting interventions in these populations.

## G. Research Questions

The present review addressed the following primary research question:

a) Are parenting interventions effective for improving social, emotional, cognitive, and behavioral mental health outcomes of children living in regions affected by armed conflict?

The present review addressed the following secondary research questions:

b) What are the mechanisms of change of parenting interventions delivered to children living in areas affected by armed conflict?
c) What are the moderators of change of parenting interventions delivered to children living in areas affected by armed conflict?

## H. Aims and Hypotheses

The aim of the present review was to evaluate the effectiveness of parenting interventions in improving mental health outcomes for child and adolescents who live in countries affected by armed conflict, with the following hypotheses:

**Hypothesis 1.** Parenting interventions are effective in improving the social, emotional, behavioral and cognitive mental health outcomes of children living in regions affected by armed conflict.

**Hypothesis 2**. The effectiveness of parenting interventions delivered to children living in areas affected by conflict is mediated by parental attitudes (self-efficacy), parental knowledge, and parental practices.

**Hypothesis 3**. The effectiveness of parenting interventions delivered to children living in areas affected by conflict is moderated by gender, educational level, and parental perception of support.

Due to the poor evidence for the moderating effect of age, a hypothesis could not be made. However, findings on effects of age were explored across included studies.

# CHAPTER III

# METHODS

A systematic review and meta-analysis was conducted in accordance with the Cochrane Handbook for Systematic Reviews of Interventions (Cochrane, 2011), alongside the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) (Shamseer et al., 2015).

## A. Search Strategy

The following databases were searched: PubMed, PsychINFO, and PTSDpub. A combination of the boolean operators, "OR", in order to detect all studies that have used any of the terms or synonyms included, in addition to "AND", in order to detect the studies that have combined the various concepts specified in the search engine, were implemented. There was no restrictions for year of publication or for language. The study design was not included in the search terms. However, it was included in the inclusion criteria during screening, and included studies were subject to a quality assessment.

The key terms were selected based on previous similar reviews in the literature (i,e. Pedersen et al., 2019), or known existing studies, to ensure that every word, terms, or variation of terms would be included in the studies to be selected. Additionally, a pilot was conducted to ensure that all known studies were detected using these search terms. Findings from the pilot indicated that for the setting and intervention search terms, 'abstract and titles' is sufficient, but for the population search, it needs to be set as 'all fields.'

The following combination of search terms was used:

"war zone" OR "conflict area" OR war OR displaced OR “armed conflict” OR humanitarian OR “armed violence” OR “violence-affected” OR “conflict-affected” OR “post-conflict” OR “war-exposed” [ALL FIELDS]
AND children OR child OR youth OR teen OR teenager OR teenagers OR adolescent OR adolescents [TITLE/ABSTRACT]
AND parenting OR parent OR family OR "family-focused” OR family-based OR families OR systemic OR mothers OR fathers OR mother OR father OR school-focused OR school-based OR schools [TITLE/ABSTRACT]

**B. Inclusion and Exclusion Criteria**

***1. Types of Studies***

Randomized controlled trials and non-randomized controlled trials were included. The latter was added due to the limited access to resources that would support large, randomized trials in low- and middle-income country settings. Studies without a control group were excluded.

***2. Participants Characteristics***

The participants included in the study were children and adolescents, up until the age of 25 years old, and living in a conflict-affected region at the time of data collection. This definition includes internally displaced peoples but excludes refugees and asylum seekers living in high-income non-conflict affected countries, due to major differences in context. Studies have examined the differential experience of people who have been internally displaced due to armed conflict and those who have resettled in

high income countries (i.e. refugees and asylum seekers), and how this differentially impacts mental health (Reed et al., 2012; O'Sullivan et al., 2016; Turrini et al., 2019).

### *3. Setting*

Included studies were those conducted in areas affected by current armed conflict or with continuing social and political instabilities related to conflict. Armed conflict was defined as any form of international or national conflict, that involves two or more armed groups that resort to armed force (ICRC, 2015). Decisions about meeting this criteria were made on a case-by-case basis, using the year of data collection and data from the Uppsala Conflict Data Program (UCDP, 2019) when needed.

### *4. Experimental Interventions*

All parenting interventions were included, which were defined as have at least one element of the behavioral modification model of parenting interventions. Such interventions target parental attitudes (self-efficacy, emotional regulation), parental knowledge (psychoeducation), or parental practices (parental skills). Any parenting intervention that involved an aspect of the three factors of this model was included, based on author descriptions.

### *5. Comparator Interventions*

Control groups were either active controls (such as another psychological therapy) or a waiting list.

## C. Type of Outcome Measure

### *1. Primary Outcomes*

Outcomes related to child mental health, referring to the child's social, emotional, cognitive, or behavioral wellbeing, were included.

### *2. Secondary Outcomes*

Psychosocial outcomes such as such as child functioning, family cohesion, hope, positivity and prosocial behavior, self-harm behaviors, and loss to follow up were included; as well as parenting outcomes such as positive parenting behaviors, parental mental health, and perceived familial support.

## D. Outcome Scales

Outcome scales were not specified in the inclusion criteria, but only psychometric scales demonstrated acceptable psychometric properties, based on author descriptions, were included.

## E. Procedure

The review was conducted in line with Cochrane methodology (Cochrane, 2011). The databases were searched by two independent researchers on the same date, and duplicates were removed. The titles were screened by one researcher using the inclusion and exclusion criteria, and then abstracts and full texts were duplicate screened independently by two members of the research team. The researchers met to pool findings and discuss discrepancies when the duplicate screening was complete. Disagreements were discussed with a third party until a consensus could be reached.

Included studies' reference lists were then screened. A quality assessment of included studies was conducted using Kmet, Cook and Lee's Risk of Bias Tool (Cochrane, 2011; see Appendix) which was used to weight results and interpret findings.

## F. Subgroup Analyses

Depending on the outcome of the search and quantity of data, we aimed to test differences between different populations or setting characteristics as mentioned below.

### *1. Low and Middle-Income vs. High-Income Countries*

Differences between the effectiveness and mechanisms of change of the interventions between high versus low- and middle-income countries.

### *2. Type of Control*

Studies including active control (those receiving another form of psychological therapy, or usual therapy) compared to those including a waitlist group (those receiving no treatment).

### *3. Loss to Follow Up*

No reported results on loss to follow up.

## G. Data Analysis

Data were extracted for study and intervention characteristics, main findings, and assessed for quality. A meta-analysis was conducted on post-intervention scores for treatment and control groups for studies with comparable outcomes, weighted by

sample size. Random effects modelling was used to account for the heterogeneity across the studies. For outcomes measured through different scales, standardized mean differences were used. Meta-analyses were conducted using the software Revman (version 5.3) (Heggings et al., 2019). Narrative syntheses were conducted for all non-comparable outcomes. Where possible, interventions were organized according to the type of parenting intervention (i.e. parental psychoeducation, capacity building, teaching parenting skills, improving the parent-child relationship, and emotion management during parenting, etc.), as well as by the sub-groups detailed above. Finally, mediators and moderators of change included in the studies were extracted and synthesized.

# CHAPTER IV

# RESULTS

## A. Study Selection

Of the 6,118 studies identified in the initial search, 3 studies were included. Seventeen studies were agreed upon by team members as meriting full review, with the most common reason for exclusion being; no control group, non-conflict setting, adult participants, asylum seekers and refugees, and single terrorism events (Figure 2). Duplication of screening took place for abstract and full-text screening, and the percentage of agreement was 71.43 %, with an interrater reliability coefficient of 0.43. This indicates a moderate agreement level between raters. A third rater was used in order to discuss disagreements among studies to include/exclude.

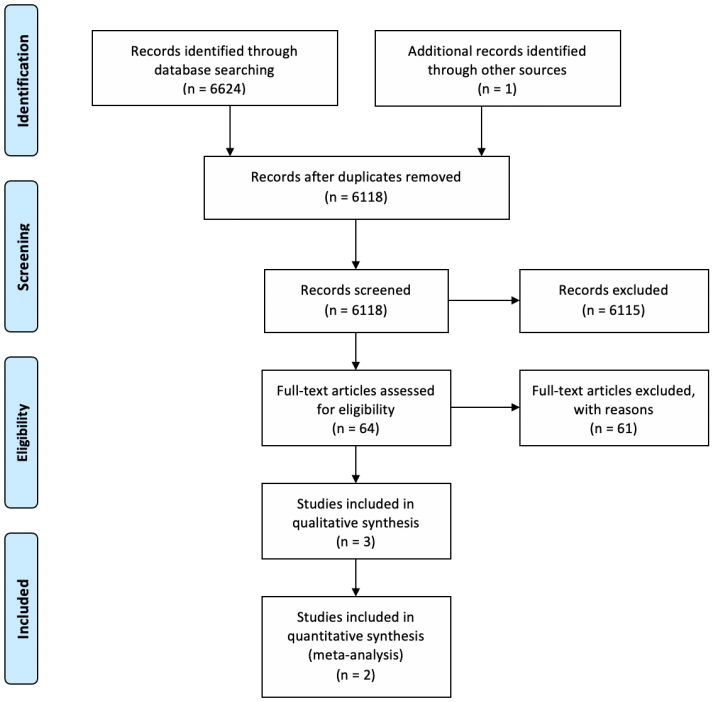


*Figure 2: Flow Chart of Studies Included*

## B. Intervention Characteristics

An overview of the 3 included intervention characteristics is displayed in Table 1. All interventions involved providing psychoeducation for the parents regarding child-rearing activities, child development and parental coping mechanisms, in addition to in-session skills practices with modifications. Two of the interventions also involved home-visits to provide psychosocial support (Dybdahl, 2001; Puffer et al., 2015), and to reinforce the skills learned by the parents (Puffer et al., 2015). The interventions focused solely on parents, whereby caregivers were involved in discussions around children's development, parenting behaviors, adaptive parent-child communicational patter, and coping mechanisms to target parental mental health.

Table 1

Table of included studies

| Study | Location | Population | Sample Size/Age Group | Intervention type, Setting, Therapist Type | Comparison group | Primary outcomes | Secondary Outcomes | Quality Rating (%) |
|---|---|---|---|---|---|---|---|---|
| Dybdahl (2001): Children and Mothers in War: An Outcome Study of a Psychosocial Intervention Program | Boznia and Herzegovnia | Mothers and children living in post war countries | N= 87 Bosnian-displaced mother-child dyads (48 girls and 39 boys) | Psychosocial intervention -paretning intervention that took place in private setting and included home visits to provide support. Involved psychoeducation on parent-child interaction, child development and coping strategies. The intervention program for this project was designed to help mothers with their own psychological prob- lems as well as those of their children and to facili-tate improved mother-child interaction by means of providing | Waitlist | Changes in perceived living conditions and social sup- port; Mothers' trauma symptoms and well-being; Mothers' description and rating of their children; Mothers' rating of children's problems; Child's cognitive performance; Depressive synmptoms in children; observation of children's problems and desirable characteristics; physical measures (Physical measures. The physical measures | | 89.28 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | psychoeducation and home visits to provide support for the mothers. | | taken for each child in this study included anamnesis, physical examination, blood test, and height and weight) | | |
| Puffer et al. (2015): Parents make the difference: a randomizedcontrolled trial of a parenting intervention in Liberia | Lofa country, Liberia | Caregivers from five different communities in Lofa | N=566, Children(269), and caregivers (270) | Parents make a difference (PMD), parenting intervention that invovled home visits to reinforce the skills. Intervention entailed of discussion (psychoeducation) on child development and child-parent communication, modeling, parental coping skills, and in-session skills practice. The program focused on positive parenting and included briefer components on building cognitive and educational skills. | Waitlist | Parenting behavior and parent-child interaction | Communication; Child-cognitive abilities; Child wellbeing; Malaria prevention behaviors | 89.28 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | intervention delivered by ICRC staff. | | | | |
| Jordans, Ndayisaba and Komproe (2013): A controlled evaluation of a brief parenting psychoeducation intervention in Burundi | Post war Burundi | school-going children living in especially difficult circumstances, included after screening for elevated psychosocial distress, whose parents were offered to participate in the parenting psychoeducation intervention. | N= 58 parents Parents and 161 children | Brief parenting intervention, parenting intervention. psychoeducation on child rearing activites and child development, which include normalization, of problems, providing relief to parents and coping mechanisms, modification of the problem through corrective information, augmenting help seeking and empowerment of participants through a focus on self-help strategies. Conducted by lay community counselors trained for 3 months. intervention deliverd in selected schools | Waitlist | Conduct Problems, depressive complaints | Perceived family support | 60.71 |

### *1. Setting and Sample Size*

Conflict-affected countries included in the studies were Boznia and Herzegovia, with internally displaced families, Liberia, and Burundi. Sample sizes in the studies ranged from 87 to 269 children, and from 59 to 270 caregivers.

### *2. Participants*

While measuring the outcomes, all three studies included children and adolescents, in addition to adults. Two studies, Puffer et al. (2015) and Jordans, Ndayisaba and Komproe, (2013) included both parents to play an active role in the intervention, while the study conducted by Dybdahl (2001) involved mothers only in the intervention group.

### *3. Outcomes*

Outcomes in included studies were for child, relational, and parental outcomes, including behavioral problems (aggression, conduct problems), conduct problems, desirable behaviors (prosocial behavior), inattention, hyperactivity, cognitive abilities, general wellbeing (sadness, anxiety), depressive complaints, as well as caregiver-child interactions, parental communication, parental perceived familial support, and intervention satisfaction.

All 3 studies measured at least 3 outcomes. Common outcomes included depression, perceived social support, and aggression, as measured by both, Jordans, Ndayisaba and Komproe, (2013) and Dybdahl, (2001), and child cognitive abilities as measured by Puffer et al., (2015) and Jordans, Ndayisaba and Komproe, (2013).

Several outcomes were unique to single studies only. For instance, maternal trauma symptoms, mother's general well-being, children's reported general wellbeing, and psychologists' observations of the child were only measured by Dybdahl (2001). Parenting behavior, caregiver-child interaction, parental communication, and parent's report of general child wellbeing were measured by Puffer et al. (2015). Finally, parent's satisfaction with the intervention was measured in the study conducted by Jordans, Ndayisaba and Komproe, (2013)

### *4. Theoretical Frameworks of Interventions*

Parenting interventions in the included studies target parental knowledge regarding child-rearing activities, and children's development and parental coping mechanisms. The theoretical framework described in the three studies is rooted in behavioral and developmental theories that aim at enriching child-parent interactions, through providing psychoeducation on child-rearing practices and coping and parenting skills. Accordingly, the assumption of the intervention is that improved parenting skills, parental mental health, and caregiver-child relationships will improve child mental health and functioning. However, while the two studies, Jordans, Ndayisaba and Komproe, (2013) and Puffer et al (2015) focus on highlighting the drawbacks of the use of dysfunctional parenting roles such as harsh discipline alongside the importance of praise and communication, the intervention in Dybdahl's (2001) study stresses more on positive parenting – creating a warm environment, enriching stimulating interaction, and sustaining a sensitive emotional expressive communication.

### *5. Quality Assessment*

The average study quality was high, meeting 84.52% of the criteria. Blinding of both investigators and participants to the group condition lacked in all studies. One study did not implement randomization for their method of selection (Jordans, Ndayisaba & Komproe, (2013). Finally, some studies did not report some of the estimates of variance (Jordans, Ndayisaba & Komproe, 2013; Dybdahl 2001) and the outcome variables were not clearly defined in one study (Jordans, Ndayisaba & Komproe, 2013).

## C. Effectiveness of Parenting Interventions

Two studies had comparable outcomes that could be included in a meta-analysis (Dybdahl, 2001; Jordans, Ndayisaba & Komproe, 2013), with depression being the only common variable across the studies.

## D. Meta-Analysis

For depression, parenting interventions did not yield a significant effect with a mean decrease of 0.03 (95% CI -0.30 - 0.25, *p*=0.84) as measured by the Beck Depression Inventory (BDI) and the Depression Self Rating Scale (DSRS). Heterogeneity was not statistically significant (I2=0%, *p*=0.35) (Figure 3).

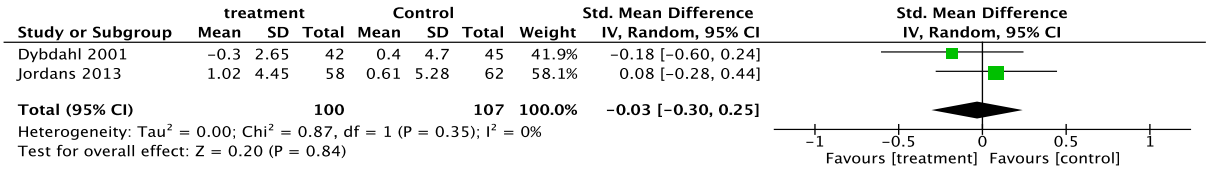


*Figure 3: Forest Plot of Comparison: Parenting Interventions, Outcome: Depression*

## E. Narrative synthesis

Effect sizes for the parenting interventions for other non-comparable variables provide mixed evidence of effectiveness for different outcomes. Significance was found across parent-child interactions, aggression, and maternal PTSD symptoms.

In Puffer et al.'s (2015) study, there was a significant improvement in parent-child interactions compared to the control group, with a small effect size (raging between 0.22 and 0.38). In the study conducted by Jordans, Ndayisaba & Komproe (2013) there was a significant decrease in aggression, with a medium effect size (Cohen's d) of .60. Finally, in the study conducted by Dybdahl (2001), the parenting intervention was found to have significant effects on maternal PTSD symptoms, with significant decreases observed across mothers' symptoms of trauma, especially for arousal. The effect size was small (Cohen's d=0.20).

However, statistically non-significant effects were found on a variety of other outcomes. In Puffer et al.'s (2015) study found no effect on harsh parenting behaviors (punishment), though a non-significant medium standardized treatment effect size was found (Glass's d = -0.61), and for the use of positive behavior management strategies, with a small non-significant standardized treatment effect size (Glass's d= 0.24). Psychologist's observation of parenting communication yielded small and non-significant increase in the use of praise and a decrease in the use of negative talk (Glass's d= 0.10), and a slight worsening of children's verbalization among the treatment group (small effect size of -0.09). Slight improvements were found across child cognitive well-being, with a small effect size ranging between 0.10 and 0.18, emotional well-being, with a medium effect size of -0.17 and conduct problems, with a

small effect size of 0.04. Non-significant worsening of hyperactivity symptoms was reported, with an effect size of 0.09 (Glass's d).

In the study conducted by Dybdahl (2001), the parenting intervention targeted parental involvement, support and education to improve mother-child interactions and the development and healing of mothers and children. Non-significant improvements among psychologists' observations of children's problem behaviors such as restlessness, distractibility, clinginess, and mood changes were reported. No significant changes were reported across positive behaviors observed by the psychologists, but children in the intervention group did rate themselves as happier. Effect sizes of such child psycho-social functioning were in the medium range (0.3-0.54). Cognitive abilities among children were shown to improve in the treatment group compared to the control group in two studies, but this improvement was not shown to be significant (Dybdahl 2001, Puffer et al., 2015). Additionally, the intervention worsened perceived family support in Jordans, Ndayisaba and Komproe (2013)'s study, with a moderate effect size of 0.32. However, in Dybdahl (2001)'s study, perceived social support was shown to improve in the treatment group, with a small but insignificant increase in mother's likelihood to seek advice.

## F. Mediating Factors and Moderating Factors

### *1. Mediating Factors*

Partial mediation was found in Puffer et al.'s (2015) study changes in parent-child interaction and improvements for harsh-discipline on child emotional outcomes, with a small indirect effect of -0.13, and a significant mediation was found for children's language with a small effect of 0.13. This indicates that improvement in

children's language skills and child emotional outcomes occurs through decreased harsh parenting and increased positive caregiver-child interaction.

### *2. Moderating Factors*

a. Gender

Mixed findings were found for gender. Puffer et al., (2015) found no evidence for a moderating effect of caregiver gender, but Jordan's (2013) found a significant effect of child gender on treatment outcomes. Significant differences for aggression were only found to be present among the boys-only as compared to the girls-only group. Dybdahl (2001) however found that females showed more improvements than males across problem behaviors, which included anxiety and sadness.

b. Completers vs. Non-Completers Group

Jordans, Ndayisaba and Komproe (2013) compared completers group (participants attending all sessions) to partial completers and found a non-significant trend towards better outcomes for aggression, with children in the partial completers group showing increased aggression as compared to the completers. This indicates better treatment outcomes for those who complete treatment to the end (Jordans, Ndayisaba & Komproe, 2013).

c. Camps vs. Private Residency

In the study conducted by Dybdahl (2001), being in a refugee setting showed higher rates of improvements for happiness than being in a private residence.

Mediation analyses for parental attitudes (self-efficacy), parental knowledge, and parental practices, and moderation analyses for gender, educational level, and parental perception of support, could not be conducted due to insufficient data. Sub-

group analyses for low and middle income vs. high income countries, type of control, and loss to follow up could also not be conducted due to insufficient data.

# CHAPTER V

# DISCUSSION

This review aimed to explore the effectiveness of parenting interventions in improving child and adolescents' mental health in areas affected by armed conflict. Mixed evidence of effectiveness was found, with beneficial effects for enhancing parent-child interactions, aggression, and maternal PTSD symptoms, no effect for depression, (Dybdahl 2001, Jordans, Ndayisaba & Komproe, 2013), and a harmful effect on family support. However, only three studies were included, and only one meta-analysis could be conducted. Despite strong evidence for parenting interventions in reducing a range of child mental health and wellbeing difficulties in high-income non-conflict affected countries (Furlong et al., 2012; Piquero et al., 2008), and the consistent call to action for improving the evidence base in humanitarian and conflict-affected settings (Betancourt et al., 2013; O'Sullivan et al., 2016; Tol et al., 2011), conclusions are limited by the lack of high-quality studies. The limited evidence-base may be attributable to a range of health systems failures, including poor governmental commitment to addressing child mental health needs, lack of prioritization of child mental health by humanitarian agencies, and a large theory-practice gap in which needs in the field are poorly translated into high quality research, and likewise research is poorly disseminated in the field (Patel, Kieling, Maulik, and Divan, 2012). One major health systems challenge is the shortage of human resources to deliver interventions at scale (Madfist et al., 2010), in addition to a lack of training, supervision and monitoring (Ager et al., 2011a).

## A. Effectiveness of Parenting Interventions

Preliminary evidence from the limited number of studies included in this review found mixed findings for a range of outcomes. The best quality evidence derived from a meta-analysis showed no difference for depressive symptoms between treatment and control groups. However, only two studies were included, with depression being the only outcome eligible for a meta-analysis. Narrative analyses of other outcomes showed evidence of non-significant improvements in cognitive abilities (Dybdahl 2001; Puffer et al., 2015), and significant reductions in aggression (Jordans, Ndayisaba & Komproe, 2013) and improvement in parent-child interaction (Puffer et al., 2015) with small to medium effect sizes. A discrepancy was found at the level of parental perceived social support across two studies, with one yielding worsening in family support (Jordans, Ndayisaba & Komproe, 2013) and the other an improvement in perceived social support (Dybdahl, 2001). All studies included were in low- and middle- income countries, which hinders our ability to explore the differences and similarities of intervention effectiveness across different socioeconomic contexts.

Therefore, there is very little evidence to derive robust conclusions for the effectiveness of parenting interventions in conflict-affected settings. The need to improve the evidence-base for these interventions is clear, however, particularly given the patterns of non-significant positive findings for aggression, parent-child interactions and cognitive abilities found in this study, the widespread use of these interventions in the field, and a strong evidence-base in other contexts. Studies on parenting interventions in low- and middle-income countries have been shown to be effective on several levels including children's externalizing behavioral outcomes, cognitive abilities, emotional outcomes, parent self-esteem, parenting practices, and parenting

knowledge (Pedersen et al., 2019). However, it is important to note that such studies have been conducted in areas affected by different kinds of stressors, without narrowing the scope to areas affected by conflict. Armed conflict has been shown to significantly impact parental mental health due to the various stressors faced (Miller et al., 2009), which might explain why parenting interventions are not as effective when not enough emphasis is placed on parents' mental health and wellbeing.

A number of mediating and moderating factors were found across studies, again with mixed findings. Gender differences were found to play a significant role in moderating the impact of parenting interventions, with boys showing a greater reduction in aggression than girls in one study (Jordans, Ndayisaba & Komproe, 2013), and with girls showing more improvements in problem behaviors in another (Dybdahl, 2001). Greater reduction for aggression in boys may be explained by higher baseline levels of aggression among boys (Gardner, Burton, & Klimes, 2006), whilst the greater reduction of problem behaviors in girls may be explained by the higher baseline levels of internalizing symptoms such as anxiety and sadness for girls as compared to boys (Maalouf et al., 2020; Brown et al., 2017). It is important to note that our review is the second review to investigate the impact of the moderating role of gender, after Brown et al. (2017), which has reviewed psychosocial interventions for children affected by armed conflict. Similar results were found, with girls showing greater reductions in internalizing symptoms, depression and sibling rivalry, while boys showed greater reductions in aggression, PTSD symptoms and loneliness (Brown et al., 2017).

A small mediational effect was found for harsh parenting and parent-child interaction on children's cognitive abilities, whereby improvements in cognitive abilities were only yielded in the presence of a decrease in harsh parenting and

improved parent-child interactions (Puffer et al., 2015). This can add clarity to the mechanism of action of parenting interventions, which have been indicated to yield effective results via the indirect effect on parenting behaviors, which in turn lead to better child mental health outcomes (Jordans, Ndayisaba & Komproe, 2013). Other moderators were also measured such as type of residential setting (private vs. refugee camp), death of one of the parents, and rate of session-completion, however, none were significant. These studies have hypothesized that residing in camps can lead to higher baseline levels of trauma symptoms across parents and lower levels of psychosocial functioning across children, which can explain the higher improvements across these levels (Dybdahl, 2001). Additionally, children with missing fathers are expected to show higher levels of problem behaviors as perceived by their mothers due to the impact father absence on children's psychosocial and emotional functioning (Mclanahan, Tech & Schneider, 2013)

It is important to note, however, that these are all singular findings and do not provide conclusive evidence of the moderating and mediating factors affecting the effectiveness of parenting interventions in conflict-affected contexts.

## B. Common Components Across Parenting Interventions

Some similarities and discrepancies were noted across the different components of parenting interventions across the studies included. All interventions included parental psychoeducation, but parenting skills being practiced, in-session activities, and delivery format differed from one intervention to the other. One of these interventions included a feedback mechanism for parents as they interacted with their children during home-visits, in order to reinforce the skills being learned (Puffer et al., 2015). This

additional feedback mechanism may explain the strong findings in this study for improvement of child-parents interactions. According to the theoretical assumptions of the mechanism of change behind parenting interventions, change in parental knowledge and behavior improve the parenting capacity and the relationship between the caregiver and the child, leading to positive child mental health outcomes (Jordans, Ndayisaba & Komproe, 2013). As such, the provision of feedback in home sessions may help in maintaining a long-term effect of key skills (Sabina, 2012), by providing ample real-world practice opportunities to improve parent-child relationships. Future studies should test this assumption through mediational analyses.

Another theoretical assumption of parenting interventions is that improvement of parental mental health and wellbeing will help to improve child mental health through an indirect effect on parenting capacity, skills and positive parent-child interaction. Studies have consistently shown a negative impact of parental psychopathology on child mental health, such that it is one of the main risk factors for child psychopathology (Wille et al., 2008). In the context of conflict and war, the same trauma and daily stressors are present for parents, impacting on their mental health and distress (Miller et al., 2018). Therefore, programs that only address child mental health without consideration for parental mental health, will miss the more systemic needs of the family and community. In our review, only one study included an intervention component for parental mental health, focused exclusively on mothers. While mothers are frequently the primary caregivers for children, paternal mental health has been found to be as important for child mental health as mothers. In addition, for issues of harsh parenting, domestic and gender-based violence, it is essential to include fathers (Hijazi, Veale, Osman & Macken, 2020). Therefore, an emphasis on providing parental

support and coping skills is as important as addressing parental practices in parenting interventions.

### C. Strengths and Limitations

To our knowledge, this is the first review to study the impact of parenting interventions on children's and adolescents' mental health in areas affected by armed conflict. We also included a broad definition of parenting interventions, all country socio-economic statuses, with an emphasis on populations directly affected by armed conflict. However, this review has several limitations. Our review was limited by a low number of eligible studies, and high heterogeneity across include studies. Outcomes varied greatly, with only depressive symptoms, cognitive abilities and perceived social support common across studies, and even then, with different outcome measures used. This impacted our ability to conduct meta-analyses for all outcome measures. While our aim was to include low-, middle-, and high-income countries, the studies included were only low-middle income countries. This hindered our ability to explore the impact of socio-economic context on effectiveness of parenting interventions and compare between effectiveness of interventions. This might be explained by our choice of inclusion criteria, whereby only conflict-affected areas were included, which mostly occur in low-middle income countries (World Bank, 2021).

# CHAPTER VI

# FUTURE DIRECTIONS AND IMPLICATIONS

This review has highlighted several areas with gaps that need to be addressed in future research on parenting interventions in conflict affected settings. Some studies used different self-report questionnaires, while others used coded qualitative interviews and observation. These methodological differences may relate to major differences in the context, culture, and language of included settings, lack of vigorous psychometric testing of measures in these different settings, and a lack of clear international guidance on which measures are most suitable. Many studies also used measures designed for clinical populations with non-clinical populations, which could lead to floor effects, where sub-clinical changes are not picked up. In addition, a lack of follow-up to monitor the long-term maintenance of gains after parenting interventions was noted, with no studies assessing participants after end-line – only one study included a 6 months follow-up (Puffer et al., 2015). It is also important to note that all studies included only a wait-list as a control group, which leads to limited ability to conclude whether changes were due to general treatment factors, or to parenting interventions specifically (Wampold, 2015). Additionally, sample sizes varied from 58 to 270, which are relatively small sample sizes. This might have affected the significance of the findings, with only one study reporting power calculations (Puffer et al., 2015).

Some level of standardization of outcome measuring, and sufficient descriptions of intervention content, are needed to be able to test effectiveness across populations. This includes a need for better non-clinical measures that are relevant for conflict affected populations. Longer-term follow-ups are also recommended in order to

investigate the sustainability of gains of parenting interventions. As wait-list control groups limit the ability to control for extraneous factors, active control groups should be employed to better ascertain the efficacy of parenting interventions. It is also crucial to shed more lights on parental mental health throughout the intervention, as well as other possible mechanisms of change, to improve our understanding of *how* these interventions work, and not just *whether* they work. Finally, there should be more emphasis on fathers' participation and providing feedback to parents as they interact with their children, modifications, and role play, and less emphasis on theoretical parenting skills.

# CHAPTER VII

# CONCLUSION

Given that parenting intervention are brief and easy to deliver by non-specialists, they can be a useful resource in conflict-affected and low resource settings. Additionally, supporting parents and improving parent-child interaction can play a vital role in increasing a core protective factor for children living in conflict affected areas (Barber, 1999; Cohen & Mannarino, 2008). This review has demonstrated mixed evidence of the effectiveness of parenting interventions in conflict-affected settings, based on limited studies, and contrary to good evidence of effectiveness in past reviews of parenting interventions in other settings (Pedersen et al., 2019). Given the potential utility of such interventions, their use in the field, and their efficacy in other settings, it is imperative to improve the evidence-base for these interventions and reduce the theory-practice gap.

# APPENDIX

*Table 1: Kmet, Cook and Lee Risk of Bias Tool*

| Criteria | | YES (2) | PARTIAL (1) | NO (0) | N/A |
|---|---|---|---|---|---|
| 1 | Question / objective sufficiently described? | | | | |
| 2 | Study design evident and appropriate? | | | | |
| 3 | Method of subject/comparison group selection or source of information/input variables described and appropriate? | | | | |
| 4 | Subject (and comparison group, if applicable) characteristics sufficiently described? | | | | |
| 5 | If interventional and random allocation was possible, was it described? | | | | |
| 6 | If interventional and blinding of investigators was possible, was it reported? | | | | |
| 7 | If interventional and blinding of subjects was possible, was it reported? | | | | |
| 8 | Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? Means of assessment reported? | | | | |
| 9 | Sample size appropriate? | | | | |
| 10 | Analytic methods described/justified and appropriate? | | | | |
| 11 | Some estimate of variance is reported for the main results? | | | | |
| 12 | Controlled for confounding? | | | | |
| 13 | Results reported in sufficient detail? | | | | |
| 14 | Conclusions supported by the results? | | | | |

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