# **Alliance for the Protection** of Children Project

**A Systematic Research Review** and Meta-Analysis

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# ALLIANCE FOR THE PROTECTION OF CHILDREN PROJECT

# A Systematic Research Review and Meta-Analysis

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#### **Abstract**

#### **Objective**

This report provides findings from a systematic research review and meta-analysis that aimed to synthesize evidence on the effectiveness of prevention and intervention programs designed to eliminate violence against children and adolescents and provide the necessary supports to victims of abuse, neglect or exploitation. The experience of abuse, neglect or exploitation can cause severe, long-term health and mental health problems. Violence prevention programs are important in Haiti, where abuse, neglect and exploitation is endemic and perpetuated by poverty, hardships caused by natural disasters, and societal norms. To support decision making on investing in potentially promising interventions, this report summarizes the existing literature on relevant programs implemented in Haiti and other Latin American and Caribbean countries, as well as countries in Africa with similar human development conditions.

## Methodology

A systematic review of studies was conducted. The quality of the studies was evaluated with a systematic review guide that captured details on the sample, outcome measures, program implementation, data collection, and study design. The research team screened more than 3,000 studies and identified 144 unique studies for which full text was reviewed. The advanced screening yielded 41 studies that met the review inclusion criteria. Of these 41 studies, eight randomized controlled trials and four quasi-experimental design studies met the criteria for inclusion in a meta-analysis. The results were analyzed by the type of program and outcome, country, gender, and study design.

# **Findings**

The literature provides an evidence base for five types of programs designed to reduce violence against children and youth: psychosocial interventions, communitywide models, vocational and life skills training programs, parent/caregiver education, and safe spaces programs. More studies of psychosocial interventions used a rigorous study design (i.e., experimental or quasi-experimental design) than studies of other types of programs. Eleven studies of psychosocial interventions used a rigorous design. In contrast, the systematic review identified only two rigorous design studies for three of the other intervention categories – community-wide models, vocational and life skills programs, and parent/caregiver education. The reviewers did not find any rigorous design studies evaluating the effects of safe spaces programs. A small number of rigorous studies reduces our ability to make conclusive statements about the effectiveness of the interventions.

The review of the research included a 2-step process. In the first step, all quantitative and qualitative studies that met relevance and research design criteria were reviewed. In the second step, quantitative studies that used an experimental or quasi-experimental research design and reported effect size information were included in a statistical meta-analysis.

Results of the first step of the review, based on a total of 41 studies, showed multiple positive intervention effects, as follows:

- **Psychosocial Interventions** (17 studies). Positive effects on improved mental and physical well-being and reduced trauma and depression symptoms of victims of violence
- Communitywide Programs (11 studies). Positive effects on increased awareness of the prevalence of violence in communities and the role that community members can play in preventing abuse, neglect or exploitation; a reduction in the number of violent incidents; increased access to and use of health and social services by vulnerable populations; reduced child exploitation and increased re-integration of children into families and communities
- Vocational and Life Skills Programs (5 studies). Positive effects on a reduced number of violent incidents, increased participation in the workforce and integration into the community as a means of reducing vulnerability to further violence, improved parenting skills of young parents, and improved psychological well-being
- **Parent/Caregiver Education** (5 studies). Positive effects on responsive parenting and parent-child relationships; improved social, emotional, and cognitive skills of children; and reduced child maltreatment
- Safe Spaces Programs (3 studies). Improved living conditions for children, youth, and young adults; improved physical and mental health of children; and improved children's social and emotional skills and supportive relationships with adults

None of the studies reported negative outcomes or a mix of negative and positive outcomes.

Results of the second step of the review – a statistical meta-analysis with 12 studies – showed that existing programs can be effective in alleviating the harmful effects of violence (e.g., posttraumatic stress disorder symptoms and depression). The overall effect size was high (Hedges' g = .77). The overall effect for the three studies conducted in Haiti also was high (Hedges' g = .81). However, researchers were able to include only psychosocial interventions and vocational training programs in the meta-analysis. Insufficient statistical information was available on the other types of programs to include these programs in the meta-analysis.

# **Conclusions and Implications for Research and Practice**

The findings of this research review are encouraging: Programs implemented in low-resource settings with populations suffering from trauma and social marginalization can effectively improve the physical and mental health of children, youth, and young adults and support their reintegration into their communities. The strong research evidence on psychosocial programs demonstrated the feasibility of scaling up strategies, such as offering short-term interventions, adapting the programs to implementation in group settings rather than as one-to-one therapy, and training lay professionals to deliver the intervention. This research evidence combined with the evidence for communitywide models suggests that these approaches in low-resource settings can effectively reduce violence rates and promote population health. However, none of the experimental and quasi-experimental design studies examined the effects of prevention efforts on children. More research is needed on reducing incidents of abuse, exploitation, and neglect in

communities affected by adversities, including extreme poverty, displacement, and natural disasters.

# Introduction

# The Importance of Combating Violence Against Children

Child abuse, neglect and exploitation are problems that threaten the physical and mental health of children and adolescents in low- and middle-income countries. Violence against children causes adverse effects on children's short- and long-term development. Children who have been physically abused are at increased risk for several long-term problems, including the following:

- Physical Health Problems. In the short term, physical health problems include physical injury, which may result in a permanent disability or health condition (Putnam-Hornstein, Cleves, Licht, & Needell, 2013). Sexual assault and exploitation can lead to sexually transmitted diseases and unwanted pregnancies (Lewis, 2012). Children who are maltreated across a long time period are at greater risk for impaired immune functioning, which increases the chance of illness and can lead to a large range of physical and mental health problems in adulthood (Sachs-Ericsson, Cromer, Hernandez, & Kendall-Tackett, 2009).
- **Risky Behavior.** Aggressive and delinquent behavior and drug abuse, for example, may result from childhood experiences of abuse (Reeve & van Gool, 2013; Springer, Sheridan, Kuo, & Carnes, 2007).
- Cognitive Problems. Poor language skills (Lum, Powell, Timms, & Snow, 2015) and numeracy skills (Maguire et al., 2015), lower working memory capacity (Hecker, Hermenau, Salmen, Teicher, & Elbert, 2016), and lower general intelligence (Maguire et al., 2015) are among the cognitive problems that may occur.
- Impaired Life Skills in Adulthood. The long term-effects of childhood abuse may include low self-esteem plus alcohol and drug abuse (Longman-Mills et al., 2013), which may impede physical and mental health as well as the employability of young adults (Caribbean Development Bank, 2015).
- Social and Emotional Problems. Depression, anxiety, heightened stress, suicide, and low self-esteem are some of the social and emotional problems that may occur (Arata, Langhinrichsen-Rohling, Bowers, & O'Farrill-Swails, 2005; Nemeroff, 2016; Yule, 2001). Other common problems include impulsivity, inattention, and hyperactivity (Maguire et al., 2015). A history of child abuse also increases children's risk of engaging in crime and violent behavior and having dysfunctional relationships when they reach adulthood (Cronley, Jeong, Davis, & Madden, 2015).

Child abuse and neglect have social and economic costs. Immediate costs include treatment costs, such as hospital costs for medical treatment and the cost of residential care for children removed from abusive contexts. Long-term costs can result from the chronic problems discussed earlier. Mental health problems, a lower level of educational attainment, poor employment outcomes, and relationship problems that children who have been maltreated are likely to experience later in life can increase the likelihood of participating in risky behaviors, such as alcohol and drug abuse, unsafe sex, abusive relationships, aggressive behavior, and crime, which

perpetuate the cycle of violence and abuse (Brown, James, & Taylor, 2010; Maxwell, Callahan, Ruggero, & Janis, 2016; Subramanian, 2016).

#### Prevalence of Violence Against Children in Haiti

Violence against children is endemic in Haiti and perpetuated by numerous socioeconomic factors. A population-based household survey about victimization resulting from physical violence to 13- to 24-year-old Haitians, including those residing in camps or settlements, found that two thirds of respondents experienced physical violence during childhood, and more than one third were victimized in the 12 months before the survey administration (Flynn-O'Brien et al., 2016).

#### Sexual Violence

The forms of abuse are many and devastating. About one fourth of young female adults and one fifth of young males living in Haiti today have experienced childhood sexual violence (Sumner et al., 2015). Many children have experienced harsh discipline involving physical or emotional pain. Because harsh discipline occasionally harms the child and is a continuous stressor, it is commonly defined as physical or emotional abuse (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008).

#### Displacement Resulting From Natural Disasters

Many children in Haiti experience different forms of exploitation and neglect caused by poverty, natural disasters, and a lack of enforcement related to children's rights. The conditions of living in Haiti worsened when a 7.1 magnitude earthquake damaged Haiti's capital city, Port-au-Prince, in January 2010. Four years after the earthquake, 400,000 people were still living in camps, and the rates of poverty and hunger were persistently high (Cénat & Derivois, 2015). The increased economic stress reduced the ability of adults to care for their children and exacerbated the rates of violence. Young Haitian women and girls in postearthquake Haiti also face an increased risk of being trafficked (Wooding & Petrozziello, 2013). The recent devastation caused by Hurricane Matthew, which hit Haiti on October 4, 2016, placed thousands of additional children at risk of violence. At least 2,000 children who have been separated from their parents or were living in orphanages have been evacuated, and many children are now living without adequate food and medical care. These children may be at increased risk for maltreatment and child trafficking (Save the Children, 2016; World Vision, 2016).

#### Worst Forms of Child Labor

An estimated 300,000–500,000 Haitian children live and work away from home as unpaid servants (*restavèks*; Beyond Borders et al., 2014). These children most often come from impoverished rural families and are sent to serve wealthier urban families. In many cases, *restavèk* becomes child trafficking and forced labor, meeting international criteria for slavery (Free the Slaves, 2014). Many *restavèk* children are controlled through violence and cannot escape from the families they serve. They often are abused physically, verbally, emotionally, and sexually (Cooper, Diego-Rosell, & Gogue, 2012). Most children in domestic servitude are

vulnerable to beatings, sexual assaults, and other abuses by individuals in the homes in which they are residing (Embassy of the United States, 2015).

Additional low-income Haitian children work in construction, agriculture, fisheries, and street vending (Embassy of the United States, 2015). A large population of Haitian children as young as 6 years old live and work on the streets. They are exposed to a variety of hazards, such as severe weather, accidents, and crime (Gaity, 2011; Kovats-Bernat, 2006).

#### Children Living in Institutions

In 2012, Haiti had 430,000 children who were orphaned (UNICEF, 2015). A small percentage of orphans are placed in institution-based care settings. Although these settings have the potential to provide safe spaces and physical care to children, they are frequently associated with social and emotional deprivation (Whetten et al., 2014).

More than 30,000 children in Haiti live in 760 orphanages. Most of these children (80%) have a living parent or a close relative; however, lack of access to schools, health care, and financial and legal support prevent them from reuniting with their families (Lumos, 2012).

#### Street Gangs and Armed Groups

Street gangs encompass another group of children exposed to violence in Haiti. According to the United Nations (UN) and Save the Children, Haiti is one of several key conflict areas where the problem of armed boys and girls remains acute. Many children are abducted or forcibly recruited into regular and irregular armed groups. Others are lured by the leaders of armed groups with financial and material resources (Peacebuild, 2008). Armed gangs, mostly in Port-au-Prince, have used children as spies and guards to transport weapons and participate in clashes with the police and UN troops (Child Soldiers International, 2008). These children are recruited into combat and servitude, experience sexual violence and exploitation, are exposed to explosives and combat situations, and experience and witness killings (Schauer & Elbert, 2010).

## Types of Programs to Combat Violence Against Children

Through the contributions of governments, nongovernmental organizations (NGOs), and foundations during the last two decades, a variety of child protection programs have been implemented to combat violence against children. These child protection or violence reduction programs have been designed to be implemented at the multicountry, national, regional, community, family/caregiver, and individual levels. At the national level, such programs often promote public awareness of the extent of the problem and the available means to protect children. Such programs aim to affect public policy, social norms, and the establishment of child protection systems (Ibarguren, 2007). Some programs aim to reduce harsh discipline and corporal punishment at home and school; improve parent-child relationships; and improve coping skills of children and their caregivers who are at high risk for exposure to violence by domestic partners, family relatives, or community members (Knerr, Gardner, & Cluver, 2013).

Psychosocial therapy-based programs have been implemented in multiple settings, including shelters, clinics, and schools. These programs offer therapies that are designed to alleviate

symptoms associated with child abuse and traumatic experiences (Aoto-Sullivan, 2000). For example, victims of abuse often experience maladaptive beliefs and attributions, such as a sense of guilt for their role in the abuse, anger at parents for not knowing about the abuse, feelings of powerlessness, a sense that they are in some way "damaged goods," and a fear of social stigma (Skar, Sherr, Clucas, & von Tetzchner, 2014). An example of a common psychosocial program is cognitive behavioral therapy—a family of therapy techniques designed to help children conquer their posttraumatic stress disorder symptoms. Such therapeutic programs are appropriate for a wide age range, from young children to adolescents and young adults (Leenarts, Diehle, Doreleijers, Jansma, & Lindauer, 2013). Other interventions may combine cognitive, experiential (e.g., art, dance, or drama), and social and emotional learning (e.g., coping with stress skills; Ager et al., 2011).

#### **Purpose of This Systematic Research Review**

The aim of this review is to identify studies that have evaluated programs implemented in Haiti and other low-income countries and examine the effectiveness of these programs. The review covers studies that focus on the effectiveness of the programs described previously. Studies that aimed to measure the prevalence of child maltreatment but did not assess program effectiveness were not included in this review. Although some programs are directed solely at children, others target caregivers and the community as conduits for change. This research review was structured to accomplish the following objectives:

- To summarize the existing literature on relevant programs implemented in Haiti or other Latin American and Caribbean countries, as well as countries in Africa with similar human development conditions.
- To identify the main types of interventions with evidence of potentially promising effects.
- To analyze findings from comparative research studies across different interventions and populations and estimate the magnitude of the effects of the interventions.

# Methodology

#### Identification of Studies

This study review was conducted in August–September 2016 as part of a larger USAID-funded project focusing on identifying promising interventions for scale-up in the protection of children in Haiti. We conducted a systematic research review and meta-analysis of the empirical research evidence for the effectiveness of programs, practices, and policies to prevent and reduce the harmful effects of violence against children. The synthesis of the research aimed to identify the extent of the evidence and the types of programs that showed potentially promising positive effects on children and their communities. Eligible studies were identified using a systematic search strategy.

The search included published and unpublished literature that reported on studies conducted between 1990 and 2016. Literature searches were conducted in both English and French. In addition to Google searches, 14 academic databases were searched:

- Academic Search Premier
- CINAHL
- Education Research Complete
- Education Source
- PubMed
- ERIC
- JSTOR
- EconLit
- PsycARTICLES
- PsycEXTRA
- PsycINFO
- Psychology and Behavioral Sciences Collection
- SAGE journals
- SocINDEX With Full Text

The keywords used in the systematic literature search and the countries included are listed in Section A.1 in Appendix A. The search processes aimed to identify studies conducted in Caribbean and Latin American countries plus countries in Africa with a similar Human Development Index as in Haiti. In addition to keyword searches of academic databases, the research team reviewed reference lists in research synthesis articles and evaluation reports and solicited nominations for studies from 10 international experts on research in child abuse and neglect.

We included studies that focused on three age groups: childhood (birth–12 years); adolescence (13–17 years); and young adulthood (18–24 years). The young adult age group was included in this systematic review because many interventions (e.g., interventions for victims of sexual abuse and conflict survivors) that target young adults also include adolescents in their design and target population.

These literature search strategies yielded more than 3,000 reports.<sup>2</sup> The criteria for the initial screening of these records are listed in Section A.2 in Appendix A. Based on a review of report abstracts and executive summaries, 144 unique studies were identified for further screening based on full text. Two independent researchers reviewed these 144 studies for their eligibility to

<sup>&</sup>lt;sup>1</sup> The Human Development Index is calculated by the Human Development Report Office of the United Nations Development Program (2015), which measures people's level of welfare.

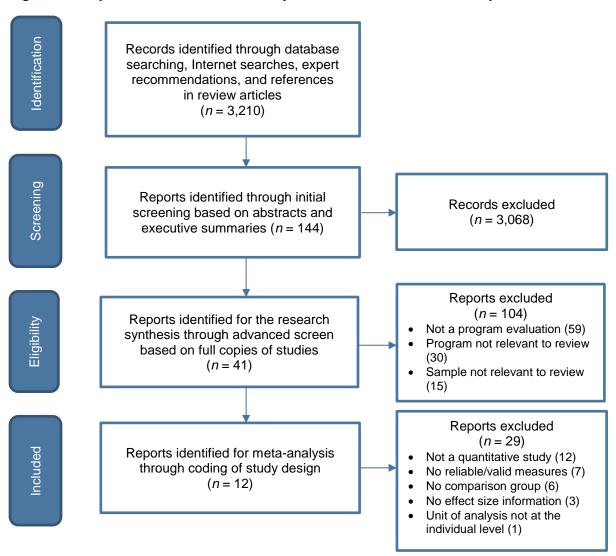
<sup>&</sup>lt;sup>2</sup> The exact number of unique reports is difficult to determine given the numerous duplicates that appeared in multiple databases and the practice among some researchers to have multiple reports on the same study or multiple reports using the same independent sample.

be included in the review and identified 41 studies that met the inclusion criteria. The criteria for advanced screening for inclusion in the review are listed in Section A.3 in Appendix A.

In addition, the 12 studies that reported findings for an intervention and a nonintervention (comparison) group were included in the meta-analysis. The criteria for inclusion in the meta-analysis are listed in Section A.4 in Appendix A. We exclusively relied on experimental and quasi-experimental studies for the meta-analysis because other types of studies are not able to address counterfactual questions.

Figure 1 summarizes the literature selection process for this review. It shows the number of studies screened and excluded at each step of the screening process.

Figure 1. Study Selection Process for the Systematic Review and Meta-Analysis



#### **Thematic Review**

Forty-one studies were included in the thematic review. Appendix B lists the programs examined in these studies by program type, study, and country. The thematic review aimed to identify and describe categories of programs that were evaluated by researchers and the implementation effects across programs within each category. The data extracted included details on the intervention implementers (e.g., professional roles and training received), participants (e.g., whether parents and community members participated in the programs), characteristics of children and adolescents benefitting from the intervention (e.g., number of participants, age, gender, history of victimization, and residence at the time of the program), sample inclusion and exclusion criteria and recruitment procedures, and implementation process (e.g., duration and intensity, supplies and materials needed for implementation, and program components and activities). Common themes of implementation within the context of program goals and targeted populations were extracted in an iterative review process. The review process culminated in the identification of program categories that share common characteristics to which the positive change may be attributed. Using thematic analysis, the research team classified the interventions in the research studies into five main types: psychosocial interventions, communitywide models, vocational and life skills training programs, parent/caregiver education, and safe spaces programs.

#### Level of Evidence

The methodological quality of each study was appraised using the framework depicted in Table 1. For each program type, the level of research evidence was determined as strong, moderate, or limited based on two types of validity of the research (Shadish, Cook, & Campbell, 2002):

- Internal Validity. The extent to which a study is able to establish a cause-and-effect relationship between the intervention and the outcomes measured. Internal validity is concerned with the rigor of the study design—the degree of controlling for potentially confounding variables, such as other events that may impact individuals, and normative growth of social and emotional abilities across time. In this systematic research review, researchers used a three-level classification of the internal validity of studies: high, moderate, and low. Experimental and quasi-experimental design studies are considered rigorous research designs with high internal validity. High internal validity is required to regard findings as conclusive and reliable. Quantitative studies that used other designs with some reference data (e.g., comparison of outcomes to baseline without a comparison group) were classified as demonstrating moderate internal validity. Moderate internal validity indicates that the findings are suggestive: The study has minor flaws or insufficient reliability data but can demonstrate the potential effectiveness of programs or practices. Other study designs were rated as low quality. These studies were not able to establish a cause-and-effect relationship between the program and youth outcomes.
- External Validity. The extent and manner in which the results of a study can be generalized to different people and settings. In this systematic research review, researchers used a two-level classification: adequate or nonadequate level of external validity. Studies classified as having an adequate level of external validity matched the

generalizability criteria of country, age group, and risk factors. These studies were conducted in Haiti and included children, adolescents, or young adults who had experienced or were at risk for one or more of abuse, neglect or exploitation described in the introduction to this report.

Table 1. Rating Criteria for Level of Evidence

Level		Rating Criteria	
14	Limited Evidence Base	None of the studies meet the criteria for moderate or high internal validity.	
	Moderate Evidence Base	The research includes evidence from at least one study with high internal validity.     OR     The research includes evidence from at least one study with moderate internal validity and two or more studies that have adequate external validity.	
	Strong Evidence Base Same as moderate and	<ol> <li>The research includes evidence from at least or study with high internal validity.</li> <li>AND</li> <li>The research includes evidence from two or mostudies that have adequate external validity.</li> </ol>	

All 41 studies, regardless of their level of evidence, were included in the thematic analysis. Only 12 studies that had high internal validity and sufficient statistical information were included in the meta-analysis in this report. The following section describes the procedures for the statistical meta-analysis.

# **Statistical Meta-Analysis**

Meta-analysis increases the power of statistical analyses by detecting intervention effects in a set of studies that could not detect effects individually (Cohn & Becker, 2003). The meta-analysis was performed using Comprehensive Meta-Analysis (CMA), Version 3 (Borenstein, Hedges, Higgins, & Rothstein, 2009). For each study, the outcome was transformed into an effect size, also called the standardized mean difference (SMD). Study effect sizes indicate postintervention differences on child maltreatment between the intervention and control groups. Positive effect sizes indicate better outcomes for the intervention group participants. No outliers were found for the study effect sizes. All effect sizes used statistical data based on individuals, not higher units of analysis such as households or community groups. Combined effect sizes were computed using CMA. Commonly, the SMD is calculated as Cohen's *d*. However, Cohen's *d* has a slight bias in small samples. Because some of the studies reviewed included small samples, we used an unbiased estimate called Hedges' *g* (Hedges, 1981).

To interpret the magnitude of the effect size, we used the threshold of 0.25 as a benchmark of meaningful impact as recommended by Hill, Bloom, Black, and Lipsey (2008). This threshold has been applied to both educational and behavioral research (What Works Clearinghouse, 2007). Cohen (1988) offered different guidelines for interpreting the magnitude of effect size in the social sciences: small effect size = 0.20; medium effect size = 0.50; and large effect size =

0.80. However, more recent expert recommendations (e.g., Durlak, 2009) make a case for regarding effect sizes at a magnitude of 0.20 or 0.25 as having high practical and clinical significance based on the nature of the outcomes (e.g., mental health and behavioral outcomes).

Although both fixed-effects and random-effects analyses results are reported, the discussion of findings focuses on random-effects models, which allow for the possibility that random differences exist between studies that are not associated with sampling error and thus take into account differences in study populations and intervention characteristics (Borenstein, Hedges, Higgins, & Rothstein, 2010; Lipsey & Wilson, 2001). Q statistics were computed to test the heterogeneity across studies. In addition, we computed 95% confidence intervals (CIs) for the point estimate of each set of effect sizes.

#### **Overview of the Studies Reviewed**

The programs evaluated addressed a wide range of ages. The majority of the evaluations (20 reports) examined programs for adolescents; nine reports addressed programs for children, three evaluations examined programs for young adults, and eight evaluations examined programs that covered all ages.

Most of the existing research evidence is recent. All 41 studies identified through the systematic literature searches were published within the last decade (2006–2016). Figure 2 shows the distribution of studies by publication year.

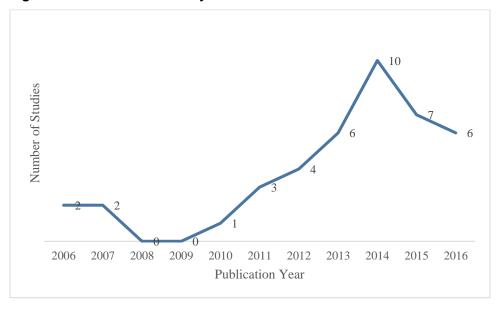


Figure 2. Number of Studies by Publication Year

As Figure 3 shows, 11 studies on child abuse and neglect were conducted in Haiti. In total, 17 of the studies reviewed were conducted in Caribbean countries, 10 studies were conducted in Latin America, and 14 were conducted in Africa.

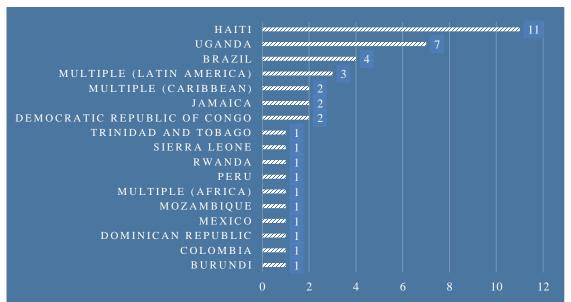


Figure 3. Number of Studies Reviewed by Country

# **Findings From the Thematic Review**

The research team categorized the interventions in the 41 studies for this systematic review into five categories: (1) psychosocial interventions to promote coping skills, (2) child protection policies and campaigns, (3) vocational and life skills training, (4) parent/caregiver education, and (5) safe spaces programs. These categories are further described in the following sections.

## 1. Psychosocial Interventions

## Level of Evidence: Strong Evidence

Of the 41 studies reviewed, 17 studies examined the effects of psychosocial programs. These programs are described in Appendix B, Table B1. The 17 studies reviewed reported positive effects in three main outcome categories:

- Reduced trauma symptoms (11 studies; 61%)
- Reduced depression symptoms (5 studies; 29%)
- Improved mental and physical wellness (7 studies; 41%)

The evidence base is strong because of the number of studies that used a rigorous study design (i.e., experimental or quasi-experimental; 11 studies; 61%).<sup>3</sup> The remainder of the studies reported on changes from baseline to posttest but did not use a comparison group. External validity of the evidence base under this category is high. Three studies with a rigorous design were conducted in Haiti. In total, six studies were conducted in the Caribbean (Haiti and

<sup>&</sup>lt;sup>3</sup> Only nine of the 11 studies reported effect size information and were included in the meta-analysis in this report.

Jamaica), five studies were conducted in Latin America (Brazil, Colombia, and Peru), and six studies were conducted in Africa (Burundi, Democratic Republic of Congo, and Uganda).

#### **Program Participants and Settings**

Nearly one third of the studies (5 studies; 29%) reported on the results of psychosocial programs for former child soldiers who were victims of violence or witnessed violence in war-afflicted areas. Another one third of the studies (5 studies; 29%) examined outcomes of victims of child maltreatment, including neglect, sexual abuse, and harsh discipline. Three studies examined the effects of programs delivered in internally displaced persons (IDP) camps. Of these studies, one was conducted in postearthquake Haiti (Bastien, 2014). Figure 4 shows the distribution of studies by program participants.

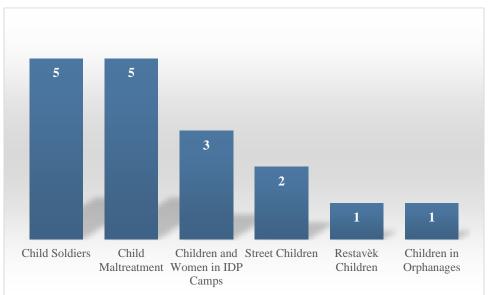


Figure 4. Number of Studies by Program Participants

Psychosocial interventions address the prevalence and salience of trauma-related symptoms among children who were victimized or have witnessed violence. The interventions in the studies reviewed were implemented in schools, care institutions, community centers, and IDP camps (Figure 5). One third of the studies (six studies) reported on interventions implemented in school buildings with children and youth identified as needing intervention because of their exposure to violence or a history of being victimized by adults. The interventions included both students enrolled in the school and youth from nearby neighborhoods. An additional five studies reported on interventions implemented in care institutions, defined as residential institutions where children and youth do not live with their biological or alternative families but under the supervision of care authorities. Two types of care institutions were included in the studies: residential facilities for recovery from trauma and orphanages. Three studies reported on interventions located in community centers. The centers were selected primarily because of their proximity to where children lived and their attractiveness (e.g., a municipal sports club). Finally, in three studies, the intervention was provided in the shelters or homes of displaced families in IDP camps.

Although most of the studies (10 studies; 59%) evaluated interventions delivered by mental health professionals (e.g., psychologists), nearly one half of the studies (seven studies; 41%) reported on interventions delivered by teachers, university students, volunteers, and members of NGOs and community-based organizations who received training and clinical supervision. According to the studies reviewed, the inclusion of lay professionals enabled the implementers to build on a larger workforce. But more importantly, it was perceived by communities as an opportunity to build capacity to more effectively work with children, parents, and primary caregivers and better understand the behavior of children, identify their problems, and communicate with victims of violence in a trauma-sensitive manner.

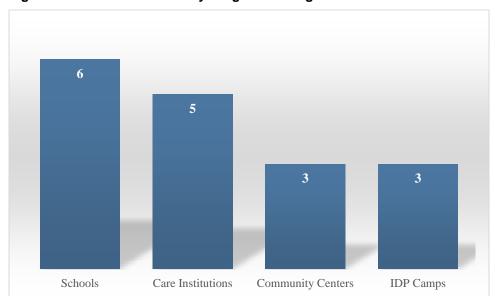


Figure 5. Number of Studies by Program Setting

## Implementation Components

The studies demonstrated the feasibility of group therapy (versus one-on-one interventions), which can increase the number of individuals who can benefit from treatment. Of the 17 studies reviewed, 15 studies (88%) reported on programs created for or adapted to be delivered in small groups.

All programs were manualized, and most programs (88%) were short term (ranging from five to 15 sessions). The programs tended to use progressively structured sessions. Some sessions included discussions about safety and control, self-awareness, self-efficacy, self-esteem, and personal narratives of traumatic events. All sessions included relaxation and calming techniques and strategies for adaptive coping with stress. Activities varied and included discussions as well as creative expression through play therapy, role-play, drama, art, music, movement, and yoga. Several programs used a train-the-trainer approach to enable local lay mental health workers to deliver a structured curriculum and teach basic coping skills.

A common example of a psychosocial intervention was trauma-focused cognitive behavioral therapy, which is designed to reduce negative emotional and behavioral responses associated with child sexual abuse, domestic violence, traumatic loss, other traumatic events, and other

affective disorders (e.g., depression and anxiety) and cognitive and behavioral problems. Such therapy—based on learning and cognitive theories—addresses distorted beliefs and attributions related to the abuse and provides a supportive environment in which children are encouraged to talk about their traumatic experiences. In some of the studies reviewed, the intervention was delivered by trained mental health personnel, such as social workers, and at times was integrated into another intervention, such as vocational training courses. This program type also often included sessions with parents/caregivers who were not abusive to improve the supportive environment at home.

# 2. Communitywide Models

#### Level of Evidence: Moderate Evidence

Of the 41 studies reviewed, 11 studies evaluated communitywide models for violence prevention (Appendix B, Table B2). The 11 studies reviewed reported positive effects in four main outcome categories:

- Improved advocacy for children and women's rights and increased public awareness of
  the scope of local violence problems and the role that community members can play in
  preventing domestic violence, neighborhood violence, and child exploitation (four
  studies; 36%)
- Reduced rates of violence, ranging from harsh discipline to homicide (three studies; 27%)
- Increased access to and use of health and social services by vulnerable populations (three studies; 27%)
- Reduction in the number of families that send their children into *Restavèk* slavery or other forms of hazardous work and an increase in the number of children rescued from labor that involved violence or abuse who are then rehabilitated and integrated into their families and society (two studies; 18%).

The level of evidence was rated as moderate because of a lack of studies with Haitians that used a rigorous study design (e.g., experimental or quasi-experimental design). One randomized controlled trial of the effects of a community mobilization intervention in Uganda to prevent violence against women provided evidence of effectiveness for using a communitywide model. A second randomized controlled trial is an impact evaluation of USAID's community-based crime and violence prevention approach in Central America. This study showed positive effects of a communitywide model on reduced violence (e.g., murder, unsafe streets, and gang fights) and increased community participation in creating safe neighborhoods. The other eight studies reported case studies and descriptive statistics of the implementation results. Of these eight studies, three were conducted in Haiti.

## **Targeted Groups and Settings**

Of the 11 studies, five reported on implementation models that sought to benefit all members of the community, three studies evaluated programs that targeted women and girls, and two studies evaluated interventions for children and youth. The settings for implementation included agency offices, health clinics, churches, and participants' homes.

#### Implementation Components

Communitywide implementation models include components directed at individuals, families, and the community. For individuals and families, communitywide models offered skill building workshops and access to resources and services. Examples of activities for vulnerable individuals and families included the following:

- Skill-building workshops to promote life skills (e.g., assertiveness, problem solving, employability skills, and coping techniques) and knowledge of one's rights
- Improved access to information on how to obtain health, mental health, and social services
- Support groups, such as parenting support groups and groups for rape survivors
- Free health services, including health screening and wellness workshops

At the community level, such models equipped community leaders and volunteers with tools for identifying vulnerable populations, monitoring and reporting on violence, and intervening directly or indirectly in the prevention of and response to child and woman exploitation and abuse and the negative consequences associated with those experiences. They also aimed to promote public awareness of the problem, change social norms, and increase the participation of community members in prevention and rehabilitation work. Examples of community actions included the following:

- Community agencies collect and analyze data (e.g., using household surveys) to identify areas with high rates of vulnerability and violence.
- Community leaders work closely with the police to report domestic violence, street violence, and other situations of exploitation and abuse.
- Employers and community agencies collaborate to monitor and collect data on child labor.
- Community members (both teens and adults) participate in events and campaigns to increase public awareness of the scope and severity of the problem. The campaigns included activities such as walks, flyer distribution, artistic presentations, and television and radio programming on the topic of human rights.
- Trained community members, police officers, health care providers, institutional leaders, and local governmental and cultural leaders lead conversations about gender-related power with their constituencies; in their own social networks; and among their families, friends, colleagues, and neighbors.
- Adults in the community (including survivors of violence and abuse) receive training to work as outreach workers, peer educators and counselors, and human rights monitors.
- Adults in the community volunteer as street monitors, interpreters, and intermediaries to
  make their neighborhoods safer and facilitate interactions of law enforcement and child
  protection agencies with families and individuals.

#### 3. Vocational and Life Skills Training

#### Level of Evidence: Moderate Evidence

Of the 41 studies reviewed, five studies examined the effects of programs focusing on vocational and life skills training (Appendix B, Table B3). The five studies reviewed reported positive effects in five main outcome categories:

- Reduced rates of violence (two studies: 40%)
- Increased job skills, labor force participation, earnings, and financial literacy (five studies; 100%)
- Increased emotional well-being and reduced psychological problems, such as depression, anxiety, and grief (two studies; 40%)
- Improved parenting and reduced child neglect (one study; 20%)
- Improved relationships with the community (one study; 20%)

The level of evidence was rated as moderate because of a lack of studies with Haitians that used a rigorous study design (e.g., experimental or quasi-experimental design). The five studies were conducted in Liberia, Sierra Leone, Uganda, and Rwanda. One randomized controlled trial randomly assigned youth clubs into participation and no participation in vocational and life skill building programs (Bandiera et al., 2015). A second study used a quasi-experimental design to compare young women who received savings accounts only to women who received savings accounts as well as health and financial education (Austrian & Muthengi, 2014).

#### Targeted Groups and Settings

Of the five studies reviewed, three evaluated programs designed to promote and support women and girls, and two studies evaluated programs for youth who had been marginalized, including street children and orphans. The vocational training workshops and mentoring took place in local businesses and nonprofit agencies, youth clubs, and homes and were implemented by trained community members.

## Implementation Components

All programs were delivered in group settings and taught participants how to make healthy decisions and use specific strategies to obtain jobs and safe housing. The workshops often included lessons about healthy decision making, leadership skills training, spiritual and psychological outlets to support coping and self-expression, literacy classes, and vocational training courses (e.g., elderly care, child care, and establishing small businesses). Some vocational training courses provided supplies and materials as well as job placement services. In addition, some vocational training programs included brief psychosocial interventions. According to qualitative and quantitative data, after the programs ended, the participants felt more responsible and respected by their communities, had greater self-confidence in their parenting skills and ability to reintegrate into the community, and felt safer in their communities after participating in these programs.

# 4. Parent/Caregiver Education

#### Level of Evidence: Moderate Evidence

Of the 41 studies reviewed, five studies examined the effects of parent/caregiver education programs aimed at preventing child abuse and neglect by promoting positive child-rearing skills, increasing parental knowledge of child development, and encouraging positive discipline rather than corporal punishment (Appendix B, Table B4). The five studies reviewed reported positive effects in four main outcome categories:

- More sensitive and responsive parenting style (three studies; 60%)
- Improved social-emotional and cognitive skills of children (two studies; 40%)
- Reduced child maltreatment (two studies; 40%)
- Improved parent-child relationships (one study; 20%)

The level of evidence was rated as moderate because of a lack of studies with Haitians that used a rigorous study design (e.g., experimental or quasi-experimental design). Two quasi-experimental design studies, one pre-post study without a comparison group, and two qualitative studies examined the effects of parenting programs. One case study reported on comprehensive supports to Haitian families to promote mental health and reduce parental stress as a way to reduce domestic violence and child abuse.

#### **Targeted Groups and Settings**

In four of the five studies, the workshop participants were primarily mothers. In two studies, the participants included other caregivers, such as health care providers and teachers, who sought to improve their interactions with children. The workshops were facilitated by community members trained for the purpose of the projects evaluated.

## Implementation Components

Two studies focused on parents of young children and included home visits in addition to the workshops. The workshops in all programs focused on the importance of and strategies for meeting the physical, emotional, and cognitive needs of children. In addition, the workshops emphasized the benefits of positive discipline and the long-term physical and psychological harm to children that can result from corporal punishment.

## 5. Safe Spaces Programs

#### Level of Evidence: Limited Evidence

Of the 41 studies reviewed, three studies examined the effects of programs aimed at providing physical shelter to victims of violence (Appendix B, Table B5). The three studies reviewed reported positive effects in three main outcome categories:

• Improved living conditions of children, youth, and adults (three studies; 100%)

- Improved emotional and physical health of children (three studies; 100%)
- Improved social and emotional skills and relationships with caring adults (two studies; 67%)

The level of evidence was rated as limited because none of the studies used a rigorous study design (i.e., experimental or quasi-experimental design), and only one study took place in Haiti. The program implemented in Haiti by Save the Children aimed to protect children living in shelters and IDP camps by providing a safe designated area where caring adults supervise daily and structured activities. The participating children were identified as those at highest risk to be deeply affected by the destruction of their homes and the violence and abuse experienced by their families. The project took place after tropical storm Noel struck Haiti in 2007 (Madfis, Martyris, & Triplehorn, 2010).

#### Targeted Groups and Settings

Each study evaluated a different model of safe spaces. In one study, the program made available shelters to displaced individuals fleeing sexual and gender-based violence. At the shelters, victims of violence received psychosocial support, medical care, legal aid, vocational training, and employment assistance (Feldman, Freccero, & Seelinger, 2013). A second study reported on supports to families with young children who desired to build new homes or enhance existing homes (Esper & London, 2013). A third study reported on safe spaces managed by social workers and parents, which provided children with a place to spend 8 hours per day engaging in structured games; psychosocial, recreational, and educational activities, including arts and crafts; self-esteem games; and drama and role-play (Madfis et al., 2010).

# **Findings of the Meta-Analysis**

This section details the findings from the 12 studies that were analyzed as part of the metaanalysis. Of these 12 studies, eight were randomized controlled trials, and four used a comparison group without random assignment to groups. Nine evaluations examined the effects of psychosocial interventions. Two studies evaluated programs that provided vocational and life skills training, and one study examined a communitywide model.

Notably, all the studies focused on individuals living in temporary residential programs, such as orphanages, IDP camps, and residential treatment centers. One study included urban and rural locations, whereas the other 11 studies were conducted in urban and semiurban areas.

The results of the meta-analysis are summarized in Table 2. The effects of 34 outcomes from 12 studies were combined to arrive at a single estimate of the size of the effect (the combined effect). The effect size was large (0.77), suggesting that the programs tested can be effective at reducing violence and promoting the health and well-being of children, adolescents, and young adults. Appendix C shows a forest plot—a graphical display of the estimated summary effects across all outcomes per study.

Table 2. Effectiveness of Programs in the Studies Reviewed<sup>a</sup>

Grouping Variable	Number of Studies	Random- Effects SMD <sup>b</sup> (Standard Error)	Random- Effects CI <sup>c</sup>	Q <sup>d</sup> Statistic	<sup>2e</sup>
All Studies	12	0.77 (0.16)	0.45-1.09	154.43*	92.88
Program Type					
Psychosocial intervention	9	1.13 (0.28)	0.58-1.68	92.04*	91.31
Vocational and life skills training	2	0.11 (0.04)	0.03-0.19	0.83	0.00
Outcomes					
Depression symptoms	3	0.87 (0.46)	-0.03–1.77	20.32*	90.16
Trauma symptoms	7	1.34 (0.34)	0.66-2.01	47.16*	87.28
Violence experience	3	0.35 (0.21)	-0.07–0.77	14.99*	86.66
Well-being	5	0.28 (0.09)	0.10-0.46	8.40	52.37
Country					
Haiti	3	0.81 (0.22)	0.38-1.25	3.98	49.74
Uganda	6	0.26 (0.11)	0.07-0.48	28.22*	82.28
Democratic Republic of the Congo	2	2.34 (0.38)	1.58-3.09	2.13	53.13
Gender					
Females	4	0.51 (0.19)	0.13-0.89	45.26*	93.37
Males	2	4.66 (2.09)	0.57-8.74	9.15*	89.08
Mixed	6	0.52 (0.19)	0.16-0.89	24.87*	79.90
Study Design					
Experimental	8	1.07 (0.26)	0.57-1.57	115.97*	93.96
Quasi-experimental	4	0.44 (0.26)	-0.07–0.95	38.18*	92.14

Note.  $^{\rm a}$ The meta-analysis results are presented for categories with at least two studies.  $^{\rm b}$ SMD is the standardized mean difference (Hedge's adjusted g).  $^{\rm c}$ CI is the 95% confidence interval.  $^{\rm d}$ The Q statistic is a test for homogeneity of the results. When the Q statistic is statistically significant at p < .05 (indicated by \*), the random-effects model is preferred over the fixed-effects model.  $^{\rm el}$ 2 describes percentage of variability caused by heterogeneity other than sampling error.

For the purpose of examining effects by the type of outcome, the research team classified the outcome measures into four categories:

- **Depression.** All measures of symptoms of depression (e.g., major depression, depression-related symptoms, and suicide risk) were included under this category.
- **Trauma.** All measures of posttraumatic stress symptoms that were regarded by the study authors as symptoms of trauma (e.g., overall stress, intrusive thoughts, avoidance behavior, and spiritual struggle) were included under this category.
- **Violence Experience.** All different types of violence experience (e.g., the number of sexual violence incidents in the last year and verbal aggression) were included under this category.
- **Well-being.** All factors related to well-being (e.g., overall psychological well-being, self-efficacy, and feeling empowered) were included under this category.

In all cases, the researchers measured symptom levels. Typically, the measures addressed both severity (i.e., intensity) and the frequency of symptoms. The most frequently measured outcome

was symptoms of trauma. This construct was assessed using well-established measures of posttraumatic stress or specific indicators of trauma, such as avoidance behavior and intrusive thoughts. Under both the fixed-effects and random-effects models, the combined effect was large. This finding has particular importance in light of two strategies used to make the programs feasible. First, the programs were short term. Because of the high rates of mobility of displaced people and people seeking jobs, it was important to provide programs that can equip children and youth with coping skills within a short time period. Second, the programs trained local people, some of them with no clinical experience, to deliver the programs. Therefore, as a whole, the research evidence shows that it is possible to build local capacity to successfully and effectively implement psychosocial programs.

The three studies conducted in Haiti showed promising results. The effect size was large for both the fixed-effects and random-effects models. All three studies examined psychosocial programs. Two of the programs addressed IDPs, and one program targeted children living in orphanages. Together, these studies examined both reductions in negative symptoms (e.g., depression and trauma) and increases in overall psychological well-being. For all types of outcomes, the interventions showed positive effects.

The average effect size for effects of programs on male participants (4.66) was much larger than the average effect size for female participants (0.51), suggesting that, despite the growing efforts to reduce violence against women and girls, there is a need for further program development and research to promote the safety and well-being of women and girls.

Notably, experimental design studies (i.e., randomized controlled trials) reported larger effects than quasi-experimental design studies. This finding suggests that the inclusion of weaker designs in the meta-analysis does not appear to have upwardly biased the overall results. This further increases our confidence in the promise of the interventions assessed.

Psychosocial interventions also showed a larger effect size than vocational and life skills training programs. In fact, psychosocial interventions showed an average effect size of 1.13 SMDs, whereas vocational and life skill training programs showed an effect size of 0.11 SMDs. This finding should be interpreted with caution because of the small number (n = 2) of studies that focused on vocational and life skill training programs. In addition, although psychosocial programs were designed specifically to reduce the negative outcomes of victimization and exposure to violence, vocational and life skills programs attempted to prevent further involvement in violence and abuse—outcomes that are harder to measure.

# **Summary and Discussion**

This research review provides evidence that five types of programs can be effectively implemented with highly vulnerable populations and achieve positive outcomes in low- and middle-income countries. These programs include psychosocial interventions, communitywide models, vocational and life skills training, parent/caregiver education, and safe spaces. Ecological factors, such as social norms, informed both the implementation of some programs (Abramsky et al., 2016; Austrian & Muthengi, 2014) and strategies to gain buy-in from community leaders and stakeholders to enhance the infrastructure required for adequate delivery

of services, including policies, resources, and collaboration with health care providers and police officers.

One promising finding from this review was the use of local volunteers and nonclinical professionals to deliver a wide array of services, including psychosocial programs. Notably, some interventions recruited individuals who had been victims of violence. The range of programs demonstrated a balanced approach between reducing negative behaviors and mental health problems and promoting positive expectations, a sense of empowerment, individual rights, and psychological well-being. The inclusion of structured courses to promote life skills, vocational skills, coping skills, and social connection and support demonstrates the understanding that to stop violence, a society should build on its strengths (e.g., employment opportunities and understanding of one's rights), not just address its weaknesses (Bandiera et al., 2015; Bastien, 2014).

The strongest evidence emerging from this review concerns mental health interventions. Initiatives that promoted access to mental health services for children and adolescents were created based on data showing that children who were neglected, orphaned, or abandoned often do not receive health care services and are at risk for mental disorders (Culver, Whetten, Boyd, & O'Donnell; 2015). These disorders further perpetuate the cycle of poverty and violence. Mental health interventions were typically of short duration (e.g., 15 weekly sessions) and involved a cultural adaptation of a manualized psychotherapy program with trained nonclinical professionals, such as lay counselors, social workers, and schoolteachers (Ager et al., 2011; Bolton et al., 2007; Church, Pina, Reategui, & Brooks, 2012; Ertl, Pfeiffer, Schauer, Elbert, & Neuner, 2011). Typically, these interventions taught participants how to identify and cope with their emotions; how to process and control intrusive thoughts; and how to engage in relaxation strategies through controlled breathing, movement, art, and other forms of self-expression. Allowing victims to describe their personal traumatic experiences and become part of social support groups also was a component of programs that showed positive effects.

Vocational and life skills training programs show smaller effects than psychosocial support interventions. However, more research will be needed to examine the effectiveness of vocational and life skills training programs in more detail. We only found two experimental or quasi-experimental studies that examined the effects of vocational and life skills training programs on violence and the health and wellbeing of children, adolescents, and young adults.

In addition, we found evidence that programs with an emphasis on men are more effective than programs with an emphasis on women. This finding is concerning considering the strong need to further improve gender equality in low-income countries, such as Haiti. It will be important to focus more research on gender equality and the barriers toward achieving this goal.

In contrast to the growing number of studies on psychosocial interventions, little research evidence exists for programs that aim to identify the mental health needs of a local population. An important part of reducing the rates of child maltreatment is diagnosing children in need of health, mental health, and welfare services (Harrison, Pierre, Gordon-Strachan, Campbell-Forrester, & Leslie, 2011; Miller & Toombs, 2014). Mental health needs assessments were a component of several large-scale initiatives to promote child protection policies and practices, with little correlation to positive outcomes derived from these.

None of the experimental and quasi-experimental design studies examined the effects of prevention efforts on children. Our findings are in agreement with other researchers (e.g., Sumner et al., 2015) who concluded that more research is needed on the prevention of violence against children and the promotion of safe, stable, and nurturing relationships and environments for children.

This review had several limitations. First, although the databases searched covered some non-English language sources, the inclusion of further non-English language databases might have identified additional reviews. Second, the meta-analysis included only three studies that did not assess psychosocial interventions, thus limiting our ability to draw conclusions about the effectiveness of these other types of programs. In particular, a need for rigorous research exists on the effectiveness of safe spaces programs. Third, outcomes that were not at the individual level (e.g., community-level outcomes) were not assessed because of a lack of valid measures and comparative research design methods. Overall, these limitations are unlikely to undermine our conclusion about the promise of using interventions effectively to combat violence against children and adolescents in Haiti. However, the limited number of rigorous comparative studies assessing outcomes in children in rural areas and children outside temporary shelters reduces our ability to determine the generalizability of the research findings. In this review, researchers used a lenient definition of adequate external validity—the extent of applicability of the findings to different populations and settings. Only country, age group, and risk factors were used to determine the extent to which the findings can be generalized to Haitians. However, additional factors may be used as more research become available, including locale and specific types of violence or exploitation. Further research is needed to explore program effectiveness in rural areas of Haiti and other low-income countries and determine the potential promise of prevention and intervention programs conducted with children in different settings, including migrant populations versus nontemporary housing, children living with their families, and children returning from *restavèk* or care institutions. More studies are needed to provide information about the role of context on implementation success, implementation strategies including provider education, and the long-term sustainability of the program.

# **Implications for Research and Practice**

The strong research evidence on psychosocial programs demonstrated the feasibility of scaling up strategies, such as offering short-term interventions, adapting the programs to implementation in group settings rather than as one-on-one therapy, and training lay professionals to deliver the intervention. This research evidence combined with the evidence for communitywide models suggests that communitywide approaches in low-resource settings can effectively reduce violence rates and promote population health. Experts have suggested that communitywide models can include creative solutions to scaling up psychosocial interventions. For example, health care providers can match multiple levels, techniques, and formats of interventions with the types of needs and create a stepped-care system, where simpler and cheaper interventions are used initially, whereas more elaborate and expensive treatments are saved for those in greatest need (Parikh, 2015).

In addition, the research summarized in this report presented evidence for the feasibility and effectiveness of training of general health workers and social services providers in providing

mental health services. At the end of the project, local lay professionals had improved capacity for delivering interventions as well as referring individuals to services. The lessons learned from evaluations of communitywide models included the importance of coordination and joint planning between NGOs and community leaders and the importance of including community stakeholders in identifying violence concerns in the community, planning and forming support groups and services for vulnerable populations, and planning for local capacity building of health centers and institutions. Together, these studies suggest that it is possible to scale up psychosocial interventions as part of a systemic approach to violence prevention. This conclusion is aligned with the recommendations of other experts based on studies in Haiti and other low-income countries (Baingana & Mangen, 2011; Belkin et al., 2011). These recommendations should be further evaluated by additional research. Specifically, this review found no longitudinal studies of the effects of capacity-building efforts at the community level or agency level after several years. In addition, more studies are needed to examine the effects of scaling up efforts on violence prevention in communities affected by adversities, including extreme poverty, displacement, and natural disasters.

#### **Conflict of Interest**

The authors declare that they have no conflicts of interest relevant to this systematic review and meta-analysis.

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## **Appendix A. Search Strategy**

## A.1. Keyword Search

The research team conducted systematic keyword searches of electronic academic databases as well as Google. The keywords used in the academic database and Internet searches were as follows:

• **Age Groups.** Children or adolescents or youth or child or teenager or teens or young people

### Adversities

- Violence: Violence or aggression or corporal punishment or physical punishment or spanking or discipline
- Sexual Violence: Sexual violence or sexual assault or rape or domestic violence or intimate partner violence
- Abuse: Abuse or neglect or maltreatment or mistreatment or exploited
- Trauma: Trauma or PTSD or posttraumatic stress disorder; and disaster or emergency
- Restavèk: Restavèk or trafficking or slaves or exploitation or child labor or abduction
- Housing/Shelter: Street or homeless or homelessness or abandoned or displaced or orphans or foster care or shelter or camp
- War: Child soldiers or war or armed conflict
- **Interventions.** Child protection or safeguarding or child welfare or social services; therapy; children's rights; and child safety

### Regions/Countries

- Caribbean. Haiti, Jamaica, Dominican Republic, Cuba, Puerto Rico (U.S.), Trinidad and Tobago, Guadeloupe (France), Martinique (France), Bahamas, Barbados, and Saint Lucia
- Oceania. Papua New Guinea
- Middle East. Yemen
- Africa. Comoros, Tanzania (United Republic of), Congo (Democratic Republic of),
   Rwanda, Lesotho, Togo, Uganda, Benin, Republic of Burundi, and Sudan
- Central America. El Salvador, Honduras, Nicaragua, Mexico, Guatemala, and Panama
- South America. Brazil, Argentina, Colombia, Peru, Chile, and Venezuela
- **Research Methods.** Study, effects, effectiveness, ethnographic, case study, control group, comparison group, analysis, experimental, randomized, program, and intervention

## A.2. Initial Screening of Studies

The initial screening was conducted with the abstracts and executive summaries of the studies. If study abstracts or executive summaries were not available, then the initial screening was done based on the introduction and methods sections of the studies. To meet the initial screening criteria, a study had to meet the following relevancy criteria:

- **Topic Relevance.** The report had to focus on preventing or reducing the harmful effects of violence or trauma.
- **Time Frame Relevance.** The time frame of the review was 1990 through 2016.
- **Publication Language.** The review included studies in English and French.
- **Publication Status.** To be reviewed, a study report could be published or unpublished.<sup>5</sup>
- **Design Relevance.** Both quantitative and qualitative studies were included in the review.
- **Full Reports.** Only full reports of studies were eligible for review (i.e., shortened Web versions of research reports were not included).

Initial screening of the research yielded 144 studies.<sup>6</sup>

## A.3. Advanced Screening of Studies

Advanced screening was conducted on full copies of the studies. To be included in the review, a study had to meet the following relevancy criteria:

- Topic Relevance. The study had to focus on preventing violence and maltreatment or methods to reduce the harmful effects of maltreatment and exposure to violence. All types of maltreatment were included, including physical abuse, emotional abuse, sexual abuse, physical neglect, and emotional neglect. This report focused on violence and maltreatment by adults. Aggression among peers was not included in this review. For example, school-based programs to reduce conduct problems were excluded in this screening phase.
- Evaluation of a Program, Policy, or Practice. To be included in this review, the study had to assess the effects of a program, policy, or practice. Studies that described the prevalence or characteristics of a problem without assessing an intervention were excluded from the review.
- Implementation Information. The report had to provide information about the characteristics of the study sample (e.g., age, location, and sample selection criteria). In addition, the report had to provide at least one of the following types of information about the program, policy, or practice: components; duration and intensity; training; materials,

<sup>&</sup>lt;sup>5</sup> "Published" is defined as made available through a publication vehicle that is mass disseminated, such as a book, a book chapter, an academic journal, a newspaper, a magazine, or collateral material widely disseminated by foundations or professional organizations. Unpublished reports are those that summarize a research study but have not been submitted to one of the above-mentioned publication vehicles (e.g., doctoral dissertations, conference presentations, reports on organizations' websites, or reports written by researchers but never submitted for publication).

<sup>&</sup>lt;sup>6</sup> A full list of the 144 studies is available from the authors on request.

assets, and resources required for implementation; or reference to another report that describes the program.

- **Sample Relevance.** The study had to satisfy several sample-related criteria:
  - Age in Years. The study must address violence against children, adolescents, or young adults. The studies included in the review covered age groups between 0 and 24 years old.
  - Location of the Intervention. Eligible studies included studies in the Caribbean and Latin American countries as well as low-income countries in Africa with a similar Human Development Index.

### A.4. Inclusion Criteria

The studies included in the meta-analysis represent a subset of those detailed in Appendix B. To be included, a study had to meet the following criteria:

- **Study Design.** The study used a comparison group evaluation methodology, including nonequivalent comparison group research designs, and the comparison group was a notreatment or minimal treatment condition.
- Outcome Measures. The study measured at least one outcome of interest to this review. Outcomes of interest were collected and analyzed at the child level and pertained to reducing or preventing violence against children and adolescents or reducing the negative impact of violence and trauma. The outcome had to show internal reliability (e.g., Cronbach's α at least .60) or face validity (i.e., the description of items or sample items demonstrates operationalization of the construct). The outcomes of interest included indicators of violence experience, trauma symptoms, depression, psychological and physical well-being, and life skills that support rehabilitation and reintegration.
- **Effect Size Information.** The study reported sufficient information to calculate and determine the direction of the effect for at least one outcome.

A total of 12 studies met these criteria. Ten of the 12 studies were published in peer-reviewed journals, one study was published online as a technical report, and one study was a doctoral dissertation.

## A.5. Coding Intervention Characteristics

A study review guide was developed to capture information regarding the specific nature of each program, sample characteristics, research methodology, and statistical analysis results. The nature of the program participants and the implementation characteristics were captured using an open-ended narrative, often taken verbatim from the report. In addition, a set of coding items was completed for each study, including sample size; age; gender; location of participants; length and frequency of participation; characteristics of the providers; training of the providers; and materials, resources, and assets.

## A.6. Program Effects

The effectiveness of each program was coded using the SMD effect size for each outcome measured in the study. The SMD is a measure of the difference between the program and the comparison groups relative to the standard deviation of the measure employed. Effect sizes were coded such that positive values always meant that the treatment group had a more desirable outcome than the comparison group, independent of the direction of the original scale reported in the study. The SMD can be computed from a wide variety of data configurations reported by study authors. For further information about the calculation of the SMD, see Lipsey and Wilson (2001). The effect sizes and meta-analysis computations were conducted using Comprehensive Meta-Analysis, Version 3 (Borenstein et al., 2009). For this review, 33 effect sizes from 12 studies were computed. Of those effect sizes, 27 were calculated using independent group means and standard deviations, and six effect sizes were calculated using binary data (the number of events).

# **Appendix B. List of Studies Reviewed**

**Table B1. Psychosocial Interventions** 

Study	Country	Program	Implementers	Participants
Ager et al. (2011)	Uganda	The "Child Resilience" curriculum project, which involved deployment of the Psychosocial Structured Activities intervention, was a school-based program for children exposed to conflict. The sessions included drama, movement, music, and art. In addition, the program had workshops for parents and community involvement components.	Schoolteachers trained in the methodology and parents	Children attending government schools among those most severely affected by conflict-induced displacement
Bastien (2014)	Haiti	The group-level, mental health intervention program titled Soulaje Lespri Moun (Relief for the Spirit) aimed to promote recovery and resiliency through better coping with stress. The core components of the program included disaster and safety education, psychoeducation on responses to stress and trauma, coping skills training (e.g., relaxation), and religiosity and meaning making.	Trained Haitian university students, trained community lay mental health workers, a field manager, a staff supervisor, and a project psychologist	Young and older adults displaced by the 2010 Haitian earthquake residing in IDP camps
Bolton et al. (2007)	Uganda	A psychotherapy-based intervention (interpersonal psychotherapy for groups) that focused on improving depressive symptoms and functioning by identifying the interpersonal problem(s) most relevant to the current depression and then assisting the individual in building skills to manage those problems. This short-term intervention was delivered in a group setting.	Trained World Vision Uganda staff serving as facilitators and supervisors	Adolescent survivors of war living in IDP camps
Budosan, O'Hanlon, & Aziz (2016)	Haiti	A community-based integrated mental health and psychosocial support intervention of service delivery and capacity building for providers. It was designed to improve the well-being of the earthquake-affected population by reducing levels of distress and enhancing resilience in the targeted communities, in part by ensuring the provision of mental health and psychosocial support services for individuals with relatively severe mental health illnesses.	European Community Humanitarian Office and local NGO partners, community psychosocial workers, nonspecialized health care providers (general practitioners, nurses, psychologists, social workers and nonmental health specialists), and senior local consultants (psychiatrists, general practitioners, psychologists, and social workers)	Haitian men, women, and children belonging to a population affected by the 2010 earthquake in need of mental health care and psychosocial support services

Study	Country	Program	Implementers	Participants
Church, Piña, Reategui, & Brooks (2012)	Peru	Single therapy sessions using emotional freedom techniques were provided to adolescents who had been physically or psychologically abused and were experiencing posttraumatic stress disorder and related symptoms.	Cesar Vallejo University and licensed professional counselors	Institutionalized male youth found by a judge to be physically or psychologically abused at home
Culver, Whetten, Boyd, & O'Donnell (2015)	Haiti	An 8-week yoga intervention, including yoga postures, breathing exercises, and meditation, was implemented to reduce trauma-related symptoms and emotional and behavioral difficulties of children and teens living in Haitian orphanages.	Duke University and yoga and aerobic dance instructors	Children living in orphanages in Haiti
Ertl, Pfeiffer, Schauer, Elbert, & Neuner (2011)	Uganda	An 8-week narrative therapy session was conducted with former child soldiers to address their symptoms of posttraumatic stress disorder.	NGO staff and trained local lay counselors	Traumatized former child soldiers living in IDP camps
Crombach & Elbert (2015)	Burundi	A brief forensic offender rehabilitation narrative exposure therapy aimed at eliminating posttraumatic stress and trauma-related symptoms. The intervention integrated tools of different therapeutic approaches, including cognitive behavioral therapy, testimony therapy, interpersonal therapy, and client-centered therapy.	The supervising psychologist for the residential center and two visiting clinical psychologists	Male children and adolescents who had lived either on the streets or in extremely vulnerable conditions before living in a residential center
Guzder, Paisley, Robertson- Hickling, & Hickling (2013)	Jamaica	The <i>Dream-A-World</i> project was a multimodal intervention lasting 2.5 years and spanning three grades. The approach included group psychotherapy, creative arts therapies, and remedial academic support adapted for the Jamaican context. It was implemented with Jamaican schoolchildren exhibiting severe disruptive disorders and academic underachievement.	School teachers, artists, master's level clinical psychologists, and a psychiatrist	School-aged children from an impoverished, disadvantaged inner-city community

Study	Country	Program	Implementers	Participants
Habigzang Pizarro de Freitas, Von Hohendorff, & Koller (2016)	Brazil	Short-term, group-based cognitive behavioral therapy includes three components: psychoeducation and cognitive restructuring, stress inoculation training, and relapse prevention.	Trained psychologists from the public social care network	Female children and adolescents who were victims of sexual violence
Jarero, Roque- López, Gómez, & Givaudán (2014)	Colombia	Group-based eye movement desensitization and reprocessing therapy was an integrative eight-phase treatment approach guided by the adaptive information processing model for the treatment of trauma, adverse life experiences, or psychological stressors. The therapy was carried out within the context of a multicomponent phase-based trauma treatment approach during a weeklong trauma recovery camp.	Trained therapists	Children and adolescents who were victims of severe interpersonal trauma (e.g., rape, sexual abuse, physical and emotional violence, neglect, or abandonment).
McMullen, O'Callaghan, Shannon, Black, & Eakin (2013)	Democratic Republic of Congo	Fifteen group-based, culturally adapted, trauma-focused cognitive behavioral therapy sessions were conducted to treat former child soldiers who were psychologically distressed.	Counselors and a local interpreter	Former child soldiers and other war-affected boys
Marques et al. (2015)	Brazil	Under The Equilibrium Program (TEP), children participated in an initial assessment and received an individualized therapeutic intervention plan. The intervention included periodic psychiatric and pediatric assessment and individual or group interventions according to each participant's needs, such as psychotherapy, art and speech therapy, school support, and recreational activities (such as theater, music, and athletics). All activities were integrated within the community center to create a flexible and accepting social environment.	University faculty, service providers (health services; social, educational, justice services; and child welfare agencies), and municipal department staff	Children and adolescents who had been traumatized and neglected and who had behavioral and mental problems and were living in foster centers, such as group shelters, or under vulnerable conditions with their families

Study	Country	Program	Implementers	Participants
Mitsopoulou & Derivois (2014)	Haiti	Group discussions led by trained psychologists and psychology students. Children were invited to discuss the changes in their lives following traumatic events, their coping strategies, and future aspirations.	Psychologists and trained psychology students	Children affected by natural disasters in Haiti who have experienced physical or emotional trauma
O'Callaghan, McMullen, Shannon, Rafferty, & Black (2013)	Democratic Republic of Congo	Culturally modified, short-term, trauma-focused cognitive behavioral therapy included strategies for stress management, emotional expression and regulation, cognitive coping, and changing unhelpful cognitions. The majority of the sessions were delivered in a group setting.	Trained social workers employed by World Vision	War-affected female adolescents who witnessed or had personal experience of sexual abuse
Stefanovics, Filho, Rosenheck, & Scivoletto (2014)	Brazil	Under The Equilibrium Program (TEP), each child received an individualized intervention plan based on a comprehensive diagnosis of needs. The plan typically included psychiatric treatment, individual and group psychotherapy, art and speech therapy, school support, and recreational activity (e.g., theater, music, or athletic activities), all of which were integrated within the community center to create a flexible and accepting social environment. Another study of the same program with a different sample was conducted by Marques et al. (2015).	Academic psychiatrists, case managers, neuropsychologists, occupational therapists, art therapists, social workers, educational therapists, and speech therapists	Children and adolescents living on the streets, in group shelters, or who were referred from child protective services
Wang et al. (2016)	Haiti	A culturally adapted form of spiritually oriented, trauma- focused cognitive behavioral therapy was provided to children with <i>Restavèk</i> experiences.	Community-based lay counselors, NGO staff volunteers, and undergraduate students from a local university	Restavèk children

**Table B2. Communitywide Models** 

Study	Country	Program	Implementers	Participants
Abramsky et al. (2016)	Uganda	The SASA! Activist Kit for Preventing Violence Against Women and HIV (human immunodeficiency virus) was a community mobilization intervention designed to change community norms and behaviors that lead to gender inequality and violence against women. Participants were asked to think about gender-related power imbalances in their own lives and communities. Then participants were supported to engage their communities in the same critical reflection.	Centre for Domestic Violence Prevention	Trained community activists interested in issues relating to violence, police officers, health care providers, institutional leaders, and local governmental and cultural leaders
Berk- Seligson, Orcés, Pizzolitto, Seligson, & Wilson (2014)	El Salvador, Guatemala, Honduras, and Panama	This initiative focused on USAID's approach to community-based crime and violence prevention and involved multiple interventions, including municipal-level planning committees, crime observatories and data collection, environmental design approaches and activities to prevent crime, programs for youth who were at risk, and community policing. Education and workforce development, economic growth and employment, public health, and governance interventions were integral to the strategy.	Groups of community representatives, community leaders, school administrators and educators, faith-based organizations, and crime prevention committees	Residents of violent communities, including youth who were at risk
Free the Slaves (2014)	Haiti	Freedom for Haiti's Children: Community Action to End Slavery Locally and Nationally had the following components: community-based assessment, open space to empower the community, child rights educational interventions, child protection committees, accelerated education programs for children, advocacy, and economic development. The project's aim was to prevent and reverse the flow of children from Haitian source communities into <i>Restavèk</i> slavery, using a holistic method for community development that was one of the first of its kind in Haiti: the Model Communities approach.	Free the Slaves and Fondasyon Limye Lavi, local volunteers, trained community members, and grassroots advocacy groups	Haitian source communities for <i>Restavèk</i> children

Study	Country	Program	Implementers	Participants
Ibarguren (2007)	Dominican Republic	The Time Bound Program Project of Support was a set of programs and interagency collaboration efforts that included educational, vocational training, income generation, and capacity-building elements to prevent and eliminate trafficking and the commercial sexual exploitation of children. The project aimed to bring simultaneous changes in several spheres, including access to education, income, public awareness, policy, and legislation.	International Program for the Elimination of Child Labor and multiple organizational, multisectoral partners; range of individual, local, regional, and national multidisciplinary participants	Children in forced labor associated with hazardous agriculture, commercial sexual exploitation, urban informal work, and those trafficked or smuggled
Neptune (2016)	Brazil	A 4-year prevention and awareness campaign organized by an evangelical social action network that mobilized Brazilian local churches to confront the sexual exploitation of children and adolescents.	RENAS, a national evangelical network; churches; and local communities (including children)	Children vulnerable to sexual violence and exploitation
Pluim (2012)	Haiti	Three programs aimed to promote awareness and action to support children's rights: youth enterprise training, debate clubs for youth, and a youth radio program.	Farming for Education (Digicel Haiti Foundation), Debate Competitions (Fondasyon Konesans Ak Libète), Rights Through Radio (Panos Caribbean, a local NGO), and Haitian youth	Haitian youth and their communities
Raissouni, Langeard, & Tudela (2014)	Haiti	The goal of the Asanm kout Vyolans sou Timoun! project was to strengthen the role of civil society in the protection of children in Haiti who were vulnerable and create a unified framework for child protection mechanisms. The project included three intervention approaches: enhanced child protective services for children, community mobilization and engagement of children to promote children's rights, and the creation of municipal child protection networks.	Monitors with training in the child protection system (legal framework and institutional mechanisms), community mobilization techniques, and case management for children who were neglected	Community representatives (men, women, and children) who participate in community forums and community leaders

Study	Country	Program	Implementers	Participants
Reid, Reddock, & Nickenig (2014)	Trinidad and Tobago	The Break the Silence initiative was a multipronged approach to protect children against sexual abuse and the risk of HIV. The final model included three types of activities—education, skill building, and service provision—that reflected the general needs identified by all three communities involved in the model design. It also was an advocacy platform directed at policymakers, health workers, and police authorities to create the protection and treatment services needed to support and care for the victims.	Staff members of a local NGO	Victims of child abuse and their families
Royes, Samiel, Tate, & Fox (2006)	Jamaica	This 3-year, multitiered, multiagency campaign implemented several gender-based campaigns to reduce violence and negative health outcomes for Jamaican men and women through such vehicles as consultations and meetings, educational initiatives, and training and outreach activities.	Bureau of Women's Affairs; community agencies, organizations, and members	Women and men vulnerable to gender-based violence and negative health outcomes
Wessells (2015)	Sierra Leone	The Interagency Learning Initiative on Community-Based Child Protection Mechanisms and Child Protection Systems, which was formed by UNICEF and its donors, developed a community-based participatory action research approach to support children who were vulnerable. The ten key elements of the intervention process that emerged during the course of the participatory action research effort were collective dialogue; awareness raising and negotiation; collective decision making, empowerment, and responsibility; linkage of communities with health services; the use of culturally relevant media; child leadership and messaging; inclusion and outreach; parent-child discussions; role modeling; and legitimation by authority.	Staff from the Interagency Learning Initiative on Community-Based Child Protection Mechanisms and Child Protection Systems and community members	Children vulnerable to violence, abuse, neglect, and exploitation plus their communities
World Bank (2013)	Haiti	Women and Girls in Haiti's Reconstruction: Assessing and Preventing Gender-Based Violence used a human rights—based approach to prevent and respond to gender-based violence. The components included a public education campaign to promote awareness and prevention of sexual and gender-based violence, institutional strengthening to enhance resources and outreach in relation to sexual and gender-based violence, and efforts to enhance women's civic participation for addressing gender-based violence.	MADRE and KOFAVIV (NGOs), rape survivors who volunteered to work as community outreach workers, peer educators and counselors, and human rights monitors	Women and girls vulnerable to gender-based violence

Table B3. Vocational and Life Skills Training

Study	Country	Program	Implementers	Participants
Austrian & Muthengi (2014)	Uganda	This intervention for girls and adolescents from vulnerable, low-income families had four main components: safe spaces, reproductive health training, financial education, and savings accounts. It was designed to address the root causes of this population's vulnerability to gender-based violence and unprotected, unplanned pregnancy and HIV infection, among other unfavorable outcomes.	Young community women trained as mentors and staff from local financial institutions	Adolescent girls who were vulnerable
Bandiera et al. (2015)	Uganda	The Empowerment and Livelihood for Adolescents program was a policy intervention that addressed vocational and life skills to improve adolescent girls' lives. The afterschool program was led by a female mentor who was only slightly older than the girls so that she could share experiences and model successes of socioeconomic empowerment that were relatable to participants.	BRAC Uganda staff and female community mentors	Adolescent women who were at high risk
Brown et al. (2009)	Rwanda	This mentoring program involved monthly home visits from an adult mentor to help provide participants with a caring and stable relationship with an adult mentor living in their community.	World Vision Rwanda and adults nominated by youth and trained as volunteer mentors	Youth heads of households
McKay, Veale, Worthen, & Wessells (2011)	Liberia, Sierra Leone, and Uganda	This community-based participatory action research project for young mothers who were marginalized and otherwise affected by war combined self-help and psychosocial support to facilitate their reintegration into their communities and address their children's vulnerabilities, including neglect and abuse.	Academic nongovernmental partnership; collaborative process between young mother participants, field staff, NGO partners, academics, and funders	Young mothers who were socially isolated, stigmatized, and marginalized
UNESCO (2006)	Uganda	The Building Capacities for Nonformal Education and Life Skills Programmes project reached Ugandan youth who were vulnerable and at high risk, assessing their educational and vocational skills needs, providing training to meet those needs, and integrating HIV/AIDS information and other life skills training into their project.	Uganda Youth Development Link; social workers, trained research assistants, and local artisans	Marginalized "street and slum" youth

Table B4. Parent/Caregiver Education

Study	Country	Program	Implementers	Participants
Brito-Navarrete, Lozano-Gutiérrez, Ostrosky-Shejet, González-Osornio, & Aguilera-Lázaro (2015)	Mexico	Covering 25 group sessions in a 6-month time period, the early intervention <i>Programa de Entrenamiento Materno Infantil: Enfoque Neuropsicológico</i> was designed to prevent later behavior problems in children. During the sessions, mothers living in high-risk environments learned about the importance of how their interactions with their children, as infants and beyond, can affect later violent or addictive behaviors through such group activities as role playing, stories, and discussion.	Neuropsychology and Psychophysiology Laboratory, Faculty of Psychology, National Autonomous University of Mexico. Neuropsychology doctoral students	Mothers of young children living in high-risk environments and their children
Daniel, Evelyn, & Wood (2012)	Barbados and Dominican Republic	UNICEF's Schools Positive Behaviour Management Program was designed to improve children's overall school experience and reduce inappropriate forms of punishment, including authorized corporal punishment and other forms of punishment that infringed on children's rights.	Trained teachers	Parents and primary school students
Gilbert, Benjamin, Da, Toussaint, & Lecomte (2015)	Haiti	As an active community network promoting mental health to counter family violence, the project included a set of services for caregivers and victims of child abuse.	GROSAME of Grand-Goâve citizens group; community associations, teachers, outreach workers, and other community members	Families experiencing or vulnerable to domestic violence
Maalouf & Campello (2014)	Panama, Honduras, Guatemala, Serbia, Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan, and Uzbekistan	Families and Schools Together was a multifamily group approach designed to build protective factors for all children; increase parental empowerment, family communication, cohesion, support, and trust; and build family unity and bonds. The program consisted of eight, consecutive, weekly, 2.5-hour sessions that included a family meal, structured family activities, and responsive play with one parent.	A trained, multiagency team of professionals from health, education, and social care.	Parents recruited through local schools

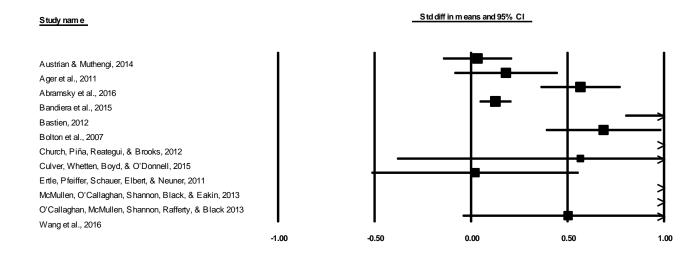
Study	Country	Program	Implementers	Participants
Skar, Sherr, Clucas, & von Tetzchner (2014)	Mozambique	parents, other caregivers, and child care workers	Programme staff in partnership with universities, local women's organizations, and social welfare	Parents and staff in child institutions in areas where the population is socially and economically deprived

## **Table B5. Safe Spaces Programs**

Study	Country	Program	Implementers	Participants
Esper & London (2013)	Colombia, Dominican Republic, Mexico, and Nicaragua	The Patrimonio Hoy initiative was a business-community partnership helping low-income families build new homes or expand their existing homes, creating safe spaces and a secure environment for children to live and develop.	CEMEX, a multinational industrial entity, project staff	Low-income consumers and their families/children and the community at- large
Feldman, Freccero, & Seelinger (2013)	Colombia	Shelter programs, which were available to displaced individuals fleeing sexual and gender-based violence, offered a variety of services both on-site and through referral, including psychosocial support and medical care. Parents and adolescents received legal aid, vocational training, and employment assistance.	Government entities, NGOs, faith-based organizations, and international donors	Refugees and internally displaced children and young adults who have experienced sexual and gender-based violence
Madfis, Martyris, & Triplehorn (2010)	Haiti and the Solomon Islands	The B-SAFE model involved building relationships, cooperation, and respect among peers; screening for children and youth at high risk; providing structured learning and life-saving information; facilitating children's natural resilience and a return to normalcy; and establishing a sense of security and self-esteem in participants.	Teachers, village committees, trained facilitators, and other community members	Displaced children living in camps and shelters

# **Appendix C. Forest Plot**

The forest plot is graphic representation of the meta-analysis. The plot in Figure C1 for the 12 studies included in the meta-analysis has one line representing each study, plotted according to the SMD using the random effects model. Most of the lines fall on the right-hand side of the graph (right of 0.00), indicating that in these studies, the participants who received the intervention had more positive outcomes than the participants who did not receive the intervention.



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