

Profiles of Adjustment in Children and Adolescents Exposed to Intimate Partner Violence: A Scoping Review Investigating Resilience Processes

Margherita Cameranesi 

Caroline C. Piotrowski 
University of Manitoba, Canada

Douglas A. Brownridge 

Abstract

Even though the negative sequelae of childhood exposure to intimate partner violence (IPV) have been largely established empirically, recent person-centered investigations have shown that young people who experience IPV at home represent a heterogeneous population including different subgroups of individuals with distinct profiles of adjustment. This comprehensive scoping review synthesizes and critically analyzes research on profiles of adjustment in children and adolescents exposed to IPV, with an emphasis on resilience profiles and the factors that promoted more positive outcomes. We searched for relevant research studies across five major bibliographic citation electronic databases, as well as reference lists of included articles, key printed journals, and the grey literature. A total of 13 research studies met our inclusion criteria and therefore were included in this scoping review. At least one “resilient profile” of adjustment was consistently identified across studies, which included between 13% and 67% of participants. Resilient profiles were typically characterized by the absence of adjustment problems and high functioning (e.g., high self-esteem, self-efficacy, and constructive problem-solving abilities) among children and adolescents exposed to IPV. All included studies also identified a number of individual-level, family-level, and environmental-level factors that were significantly associated with resilient adjustment among study participants. Based on the results of our review, we offered recommendations for practice, policy, and research.

Keywords: Childhood exposure to intimate partner violence, profiles of adjustment, resilience, scoping review, children and adolescents

Introduction

Children’s exposure to intimate partner violence (IPV) is a highly prevalent public health concern in North America, with more than 1 in 15 children and adolescents under the age of 18 experiencing some type of IPV exposure within their home each year (Hamby, Finkelhor, Turner, & Ormrod, 2011). To date, there is a consistent body of evidence that childhood exposure to IPV represents a major risk factor for the development of a wide range of adjustment problems in the short- and long-term that span virtually all spheres of functioning including social, psychological, emotional, behavioural, intellectual, and physiological domains (Howell, Barnes, Miller, & Graham-Bermann, 2016). Several meta-analyses of cross-sectional and longitudinal studies (Chan & Yeung, 2009; Evans, Davies, & DiLillo, 2008; Kitzmann, Gaylord, Holt, & Kenny, 2003; Vu, Jouriles, McDonald, & Rosenfield, 2016; Wolfe, Crooks, Lee,

McIntyre-Smith, & Jaffe, 2003), as well as one mega-analysis (Sternberg, Baradaran, Abbott, Lamb, & Guterman, 2006), have synthesized the empirical findings on exposure to IPV and provided substantial evidence of moderate to strong associations between exposure to IPV and both internalizing and externalizing problems in children and adolescents. These difficulties include depressive and anxiety symptoms, aggressive and defiant behaviour, conduct problems, and Post-Traumatic Stress Disorder (PTSD) symptoms. Children and adolescents exposed to IPV are also at an increased risk for the development of social problems, such as aggression and delinquency, school-related problems such as low achievement and school drop-out, chronic physical health conditions such as asthma and obesity, and intellectual impairments such as learning disabilities (Howell et al., 2016; Piotrowski & Cameranesi, 2018; Suglia, Duarte, Chambers, & Boynton-Jarrett, 2012;

Corresponding Author: Margherita Cameranesi, Applied Health Sciences Ph.D. (Candidate), Faculty of Graduate Studies, University of Manitoba. Margherita Cameranesi, 311 Human Ecology Building, 35 Chancellor's Circle, Winnipeg MB, R3T 2N2, Canada. Phone: +1 204 898 6274.

Email: cameranm@myumanitoba.ca

© 2020 JPPW. All rights reserved

Suglia, Duarte, Sandel, Wright, 2010; Wathen & MacMillan, 2013). In addition, these children are at greater risk for physical, sexual, and psychological/emotional abuse and neglect (Wathen & MacMillan, 2013; Howell et al., 2016). In adulthood, they are at an increased risk of experiencing an array of conditions affecting their mental and physical health including depression, anxiety, PTSD and psychosomatic symptoms, personality disorders, eating disorders, risky behaviours, obesity, cardiovascular disease (CVD), chronic immunologic disease, and disability (Afifi et al., 2014; Campbell, Walker, & Egede, 2016; Graham-Bermann, Cater, Miller-Graff, & Howell, 2016; Suglia, Sapra, & Koenen, 2015).

Even though the negative effects of childhood exposure to IPV have been largely established empirically, there is also consistent evidence that a significant proportion of children and adolescents who are exposed to IPV are resilient, in the sense that they do not appear to develop adjustment problems. Several studies that have used a person-centered approach to identify different profiles of adjustment among children and adolescents exposed to IPV have shown that 15%-60% of this population present resilient profiles characterized by positive adaptation and/or the absence of adjustment problems, while the remaining children show profiles characterized by a combination of mild and severe adjustment problems (McDonald, Corona, et al., 2016; Lang & Stover, 2008; Piotrowski, 2011).

The construct of resilience refers to positive adaptation despite adversity (Luthar, Cicchetti, & Becker, 2000; Masten, 2011; Rutter, 2010). Two elements need to co-occur in order for resilience to be present: 1) an adverse circumstance that has the potential to disrupt children's development, and 2) reasonably successful adaptation. Furthermore, resilience is best understood as a dynamic process rather than an individual stable quality (Rutter, 2012), as it is shaped by the specific constellation of risk and protective factors that characterizes each person's life at a particular time (Cicchetti, Rogosch, Lynch, & Holt, 1993). Therefore, individuals can be resilient to specific adversities but not others, or be resilient in adverse circumstances at a specific developmental stage but not others.

Since the first study investigating profiles of adjustment in children exposed to IPV was published in 1998 (Hughes & Luke, 1998), several scholars have taken a person-centered approach to examine the adjustment of this population (e.g., McDonald, Corona, et al., 2016; Graham-Bermann, Gruber, Howell, & Girz, 2009; Piotrowski, 2011). However, to date no one has

systematically synthesized the findings across these studies to provide an overall picture of the specific profiles and trajectories of resilience shown by these children and adolescents over time or identified profiles of protective and risk factors that consistently emerge to discriminate among profiles and trajectories of adjustment. In fact, even though there is currently reliable evidence that a significant proportion of young people exposed to IPV are resilient in a variety of areas of everyday life, it is still unclear what specific factors may account for differing pathways of adjustment. Therefore, our purpose was to fill this important gap in the scholarly literature by conducting a comprehensive scoping review of quantitative studies investigating profiles of adjustment at one point in time and/or trajectories of adjustment over time in children and adolescents under the age of 18 who were exposed to any type of IPV, including both prenatal and postnatal exposure (for an exhaustive discussion of the different typologies of childhood exposure to IPV see Holden, 2003). In our review, studies investigating profiles and/or trajectories of resilience and psychopathology were summarized and critically analyzed in order to provide a detailed portrait of the diverse profiles of adjustment and developmental trajectories of children exposed to IPV. In addition, we identified the risk and protective factors associated with these profiles and trajectories and provided a critical discussion regarding the implications of our findings for practitioners, policy makers, and researchers working in this field.

Review Objectives

We conducted our comprehensive scoping review with the following two objectives:

1. To synthesize and critically analyze research on profiles of adjustment in young people exposed to IPV that were measured at a single point in time, as well as trajectories of adjustment measured over multiple timepoints; and
2. To develop recommendations for practice, policy, and research, based on our findings.

Method

Scoping Review Methodology

Although one of the first methodological frameworks for scoping reviews was published in 2005 (Arksey & O'Malley, 2005), this is still considered a relatively new methodology without a universally accepted definition (Davis, Drey, & Gould, 2009; Levac, Colquhoun, & O'Brien, 2010; Peters et al., 2015). Scoping reviews are a form of knowledge synthesis that incorporate a range of study designs to comprehensively summarize and synthesize evidence with the aim of informing practice,

programs and policy, and providing direction to future research priorities (Arksey & O'Malley, 2005). In developing our scoping review, we integrated the methodological framework developed by Arksey and O'Malley (2005), and subsequently enhanced by Levac, Colquhoun and O'Brien (2010), with the most recent methodological guidance for conducting scoping reviews proposed by the Joanna Briggs Institute (JBI; Davis et al., 2009; Colquhoun et al., 2014; Peters et al., 2015; Peters, Godfrey, McInerney, et al., 2015). Accordingly, we aimed to synthesize knowledge on profiles and trajectories of adjustment in young people exposed to IPV by mapping key concepts, types of evidence, and gaps in research related to this field through systematically searching, selecting, and synthesizing existing knowledge (Colquhoun et al., 2014). Our scoping review was undertaken to summarize and disseminate research findings, to identify research gaps, and to make recommendations for practice, policy, and research. Furthermore, unlike a systematic review, our scoping review included a variety of study designs in order to support the greater breadth of our research topic. A formal assessment of methodological quality of these studies was not undertaken, as they provide an overview of existing evidence regardless of quality (Tricco et al., 2016).

Eligibility Criteria

The following inclusion criteria were implemented:

1. The review included all primary empirical studies that utilized quantitative research methods and used person-centered statistical techniques such as cluster analysis, growth curve analysis, multilevel modelling, hierarchical linear modelling, and latent profile analysis to identify patterns and/or trajectories of adjustment in children and/or adolescents under the age of 18 who were exposed to any type of prenatal and/or postnatal IPV (i.e., physical, psychological/emotional, financial, and/or sexual).
2. Qualitative investigations were excluded because our scoping review focused on research that has used specific person-centered statistical techniques to identify subgroups of children and adolescents that presented similar adjustment outcomes.
3. The inclusion criteria were not restricted by publication date, geographical area, sample ethnicity, study design, sample type, or outcome measured.
4. Studies in which participants exposed to IPV were also exposed to other forms of violence such as child abuse and neglect were included.

5. Only studies published in English, French, Spanish, and Italian were included.

Our first three inclusion criteria (1-3) were chosen to reflect our research objectives and locate articles that provide the most comprehensive collection of research findings on profiles and trajectories of resilience and psychopathology in children and adolescents who were exposed to IPV. The fourth inclusion criterion (4) was used in accordance with the definition of resilience and because we were particularly interested in examining profiles and trajectory of resilience in our target population regardless of whether or not the participants of individual studies had experienced only IPV exposure or a variety of adverse childhood experiences (ACEs). The last inclusion criterion was chosen to reflect the linguistic skills of our research team; however, our comprehensive search of the literature did not yield any results that fitted the other inclusion criteria (1-4) and were published in a language other than English or French.

Literature Search

In October 2018, a comprehensive literature search was conducted in consultation with an academic librarian to identify both published and unpublished (grey literature) primary studies. First, we searched the following five major bibliographic citation electronic databases: Medline (Ovid), Embase (Ovid), CINAHL (EBSCOhost), PsycINFO (ProQuest), and Scopus (Elsevier) using the following three general concepts: 1 – (IPV OR "intimate partner violence" OR "partner abuse" OR "family violence" OR "domestic violence"), AND 2 – (infan* OR child* OR youth* OR adolescen* OR teenag* OR toddler*) AND 3 – (adjust* OR resilien* OR coping OR profile* OR pattern* OR trajector* OR "profile* of adjustment" OR "pattern* of adjustment" OR "trajector* of adjustment"). As recommended by Peters and colleagues (Peters, Godfrey, McInerney, et al., 2015), we performed an iterative search by developing a distinct search strategy for each database searched, in accordance with the specific key terms used in that database to index the articles of interest. Next, we searched reference lists of all identified articles for further relevant materials. Additionally, we hand searched key journals available at the University of Manitoba Libraries such as *Violence & Victims*. We also searched the grey literature using advanced search strategies, web-based search engines such as Google Scholar, open access databases, and websites of conferences, as well as governmental and non-governmental agencies that fund, report, and conduct research on children and adolescents exposed to IPV.

Table 1. Description of Included Studies.

Study & Setting	Design & Method	Sample & Exposure Type	Outcome Measures	Profiles	Discriminating Factors
Heterogeneity in Adjustment Among Children of Battered Women (Hughes & Luke, 1998)	Cross-sectional Cluster analysis	Shelter sample (rural) 58 children aged 6-12 years	Externalizing Problems (maternal report): Eyberg Child Behavior Inventory (ECBI) and Child Behavior Checklist (CBCL)	5 Profiles: 1. Hanging in There (36%): average behavioural problems, mild anxiety, and average self-esteem 2. Doing Well (26%): low behavioural problems, no anxiety, and high self-esteem 3. High Behavior Problems (15%): high behavioural difficulties, low anxiety, and moderate self-esteem 4. High General Distress (15%): high behavioural and emotional problems, and low self-esteem 5. Depressed Kids (8%): low behavioural problems, moderate anxiety, and very high depression	Age of mothers and children, depressive symptoms of mothers and children, maternal verbal aggression of partner, and length of IPV Not significant: child sex, household income, maternal employment, IPV frequency, physical child abuse, and maternal anxiety symptoms
Patterns of Adjustment Among Children of Battered Women (Grych, Jouriles, Swank, McDonald, & Norwood, 2000)	Cross-sectional Cluster analysis	Shelter sample (urban) 228 children aged 8-14 years	Externalizing Problems (maternal report): CBCL Internalizing Problems (child report): RCMAS and CDI Self-Esteem (child report): Coopersmith Self-Esteem Inventory (CSEI)	5 Profiles: 1. No Problems Reported (31%): low internalizing and externalizing problems, and high self-esteem 2. Multiproblem-Externalizing (19%): high internalizing problems, moderate internalizing problems, and low self-esteem 3. Externalizing (21%): low internalizing problems, high externalizing problems, and moderate self-esteem 4. Mild Distress (18%): mild internalizing problems, low externalizing problems, and low self-esteem 5. Multiproblem-Internalizing (11%): high depressive symptoms, mild externalizing problems, and very low self-esteem	Severity of IPV, physical child abuse, and child perceptions and appraisals of IPV Not significant: child age, child ethnicity, whether IPV was perpetrated by the child's biological father, mothers' age, mothers' education, and family income

Table 1. (continued)

Study & Setting	Design & Method	Sample & Exposure Type	Outcome Measures	Profiles	Discriminating Factors
Diversity of Children's Immediate Coping Responses to Witnessing Domestic Violence (Allen, Wolf, Bybee, & Sullivan, 2003)	Cross-sectional Cluster analysis	Mixed urban sample (shelter & community) 80 children aged 7-11 years	Children's Reactions to Witnessing Violence (maternal and child report): questions on children's emotional and behavioural reactions to witnessing IPV	4 Profiles: 1. Aggressive/Helpseeking (22%): aggressive reactions to IPV with fear and confusion 2. Overprotective (22%): aggressive reactions to IPV with overprotectiveness towards mothers 3. Avoidant/Ignoring (32%): avoidant reactions to IPV with anger and confusion 4. Less Responsive (24%): no reactions to IPV with low emotionality	IPV severity and frequency, type and amount of IPV exposure, family type, living with the IPV perpetrator Not significant: child age, child ethnicity, whether IPV was perpetrated by the child's biological father, how long the child had known the perpetrator, how often the child saw the IPV perpetrator, and child well-being
USA		Physical and emotional IPV			
Symptom Patterns Among Youth Exposed to Intimate Partner Violence (Lang & Stover, 2008)	Cross-sectional Cluster analysis	Community sample (urban) 74 children aged 2-17 years	Internalizing and Externalizing Problems (maternal report): CBCL Post-Traumatic Stress Disorder (PTSD) Symptoms (maternal report): Post-traumatic Stress Disorder Reaction Index (PTSD-RD)	4 Profiles: 1. Typical (35%): mild internalizing and internalizing problems, and low PTSD symptoms 2. Asymptomatic (40%): low internalizing and externalizing problems and no PTSD symptoms 3. Acute PTSD (10%): borderline internalizing and externalizing problems, and very high PTSD symptoms 4. General Distress (15%): borderline internalizing and externalizing problems, and moderate PTSD symptoms	Maternal employment, hostility, IPV perpetration, general distress, and PTSD symptoms, as well as child trauma history Not significant: child age, mothers' age, mothers' ethnicity, family income, whether IPV was perpetrated by the child's biological father, whether the child was present during the IPV episodes, and severity of male partners' aggression
USA		Any type of IPV			
Profiles of Behavioral Problems in Children Who Witness Domestic Violence (Spitsbury et al., 2008)	Cross-sectional Cluster analysis	Community sample (urban) 175 children aged 8-16 years	Externalizing Problems (maternal report): Revised Behavior Problem Checklist (RBPC) Internalizing Problems (child report): Trauma Symptom Checklist for Children (TSCC)	3 Profiles: 1. Under Clinical Cutoffs (67%): no problems 2. Externalizing with or without Internalizing Problems (21%) 3. Internalizing Only (12%)	Child sex, maternal education, and child exposure to IPV Not significant: child age and ethnicity, maternal age and employment, number of children in the family, and child living arrangement
USA		Any type of IPV			

Table 1. (continued)

Study & Setting	Design & Method	Sample & Exposure Type	Outcome Measures	Profiles	Discriminating Factors
Factors Discriminating Among Profiles of Resilience and Psychopathology in Children Exposed to Intimate Partner Violence (IPV; Graham-Bermann, Gruber, Howell, & Gritz, 2009)	Cross-sectional Cluster analysis	Community sample (urban and rural) 214 children aged 7-12 years Physical IPV	Internalizing and Externalizing Problems (maternal report): CBCL Depressive Symptoms (child report): CDI Self-Esteem (child report): Harter Perceived Self-Competence Scales for Children	4 Profiles: 1. Severe Adjustment Problems (24%): high problems and moderate self-esteem 2. Struggling (45%): low difficulties and low self-esteem 3. Depressed (11%): very high depressive scores, low internalizing and externalizing problems, and low self-esteem 4. Resilient (20%): no difficulties and high self-esteem	IPV severity and frequency, maternal mental health, parenting practices, fears and worries about mothers' safety, family problem-solving abilities Not significant: child age, sex, and ethnicity; maternal education, employment, and marital status; family income, frequency of visiting with the father (perpetrator)
USA					
Patterns of Adjustment Among Siblings Exposed to Intimate Partner Violence (Plotkowski, 2011)	Cross-sectional Cluster analysis	Community sample (urban) 47 sibling pairs aged 5-18 years Physical IPV	Internalizing and Externalizing Problems (maternal report): CBCL Depression (child report): CDI and Beck Depression Inventory Self-Esteem (child report): Harter Perceived Self-Competence Scales for Children and Rosenberg Self-Esteem Scale	5 Profiles in older and younger siblings: 1. Asymptomatic (21-30%): no difficulties and moderate self-esteem 2. Grieving (21-34%): depressed symptoms with high self-esteem 3. Depressed (17-19%): depressed symptoms with low self-esteem 4. Internalizing (13-17%): high internalizing problems with few depressive symptoms and low self-esteem 5. Multi-Problem Externalizing (15-17%): severe difficulties with low self-esteem	Child age, maternal marital status, maternal warmth and hostility, and sibling warmth and hostility Not significant: maternal age, education, ethnicity, and physical IPV perpetration; child sex and length of IPV exposure; and maternal and child length of counselling
Canada					
Investigating Patterns of Adaptation in Children Exposed to Spousal Violence (Doucet & Fortin, 2014)	Cross-sectional Cluster analysis	Mixed urban sample (shelter + other agencies) 116 children aged 8-12 years Physical and psychological IPV	Externalizing Problems (maternal report): CBCL Anxiety (child report): RCMAS Depression (child report): CDI	4 Profiles: 1. No Problem Reported (33%) 2. Externalizing Problems Only (16%) 3. Internalizing Problems Only (21%) 4. Multiple Problems (30%): both externalizing and internalizing problems	Physical child abuse, quality of the mother-child relationship, child appraisal of violence, and child parentification Not significant: child age, family income, parental age and education, number of children in the family
Canada					

Table 1. (continued)

Study & Setting	Design & Method	Sample & Exposure Type	Outcome Measures	Profiles	Discriminating Factors
Children's Exposure to Intimate Partner Violence and their Social, School, and Activities	Cross-sectional Latent Profile Analysis (LPA)	Mixed urban and rural sample (shelter + community)	School, Social and Activities Competence (maternal report): CBCL Exposure to IPV (child report): Child Exposure to Domestic Violence Scale (CEDV)	5 Profiles: 1. Frequent IPV Exposure with Low Activities Competence (39%) 2. Low IPV Exposure with Compromised Global Competence (6%) 3. Frequent IPV Exposure with Average Global Competence (31%) 4. Low IPV Exposure with Compromised School Competence (11%) 5. Frequent IPV Exposure with High Global Competence (13%)	Household income, maternal education, length of IPV exposure, number of children in the family, and whether IPV was perpetrated by the child's biological father
Competence: Latent Profiles and Correlates (McDonald et al., 2016)		288 children aged 7-12 years			
USA		Physical and emotional IPV			Not significant: child age, child sex, child ethnicity, IPV type, and maternal age
Patterns of Adjustment among Children Exposed to Intimate Partner Violence: a Person-Centered Approach (McDonald, Graham-Bermann, Maternick, Ascione, & Williams, 2016)	Cross-sectional Latent Profile Analysis (LPA)	Community sample (urban) 291 children aged 7-12 years	Internalizing and Externalizing Problems (maternal report): CBCL Empathy (maternal report): Griffith Empathy Measure (GEM)	3 Profiles: 1. Resilient (66%): no difficulties with moderate empathy 2. Struggling (28%): mild internalizing and externalizing problems with average empathy and CU traits 3. Severe Problems (6%): severe internalizing and externalizing problems with high CU trait scores	Exposure to animal cruelty, child ethnicity, length of IPV exposure, and whether IPV was perpetrated by the child's biological father
Any type of IPV			Callous/Unemotional (CU) Traits (maternal report), Inventory of Callous and Unemotional Traits (ICU)		Not significant: child age, child sex, maternal education, IPV frequency, household income, and number of children living in the household
USA					
Children Exposed to Intimate Partner Violence: Identifying Differential Effects of Family Environment on Children's Trauma and Psychopathology	Cross-sectional Regression Mixture Models	Mixed urban sample (shelter + other agencies) 289 children aged 7-12 years	Internalizing Problems, Externalizing Problems, and PTSD Symptoms (maternal report): CBCL	3 Profiles: 1. Asymptomatic with Low Sensitivity (66%): no difficulties 2. Maladjusted with Moderate Sensitivity (24%): high internalizing and externalizing problems with moderate PTSD symptoms 3. Highly Maladjusted with High Sensitivity (10%): very high internalizing and externalizing problems as well as PTSD symptoms	Child ethnicity and maternal education
Regression Mixture Models (McDonald et al., 2016)					Not significant: child sex
USA		Physical and emotional IPV			

Table 1. (continued)

Study & Setting	Design & Method	Sample & Exposure Type	Outcome Measures	Profiles	Discriminating Factors
Differential Adjustment Among Rural Adolescents Exposed to Family Violence (Sizanko, Hedge, & McDonnell, 2016) USA	Cross-sectional Cluster analysis	Community sample (rural) 398 adolescents aged 10-17 years Any type of IPV	Depression (adolescent report): Center for Epidemiologic Studies Depression Scale (CES-D) Problem-Solving Attitudes (adolescent report): 13-item self-report measure Self-Efficacy (adolescent report): 23-item self-report measure	3 Profiles: 1. Well-Adjusted (46%): low depression with high self-efficacy and problem-solving 2. Moderately Adjusted (44%): moderate depression, self-efficacy, and problem-solving 3. Struggling (10%): high depression with compromised self-efficacy and problem-solving	Household income, caregiver education, child ethnicity, neighbourhood safety, family functioning, family social support, adolescent and peer attitudes toward substance use, parental monitoring, and parental engagement Not significant: child age and sex
Profiles of Children's Thinking About Violence in Families Exposed to Intimate Partner Violence (Grogan-Kaylor, Stein, Clark, Galano, & Graham-Bermann, 2017) USA	Cross-sectional Latent Profile Analysis (LPA)	Mixed urban sample (shelter + community) 198 children aged 4-12 years Any type of IPV	Attitudes and Beliefs About Violence (child report): Attitudes and Beliefs about Violence Scale (ABAV)	2 Profiles: 1. Maladaptive Beliefs About Violence 2. Adaptive Beliefs About Violence	Child age, maternal depression, and maternal positive parenting Not significant: child sex, maternal ethnicity, total IPV experienced by mothers, and child corporal punishment

Study Selection Procedure

In order to minimize reporting bias during level one screening (Peters, Godfrey, McInerney, et al., 2015), two reviewers used the eligibility criteria to independently screen citations (i.e., titles and abstracts), and during level two screening the same two reviewers screened the full text of potentially relevant articles. Throughout the screening process, no disagreements arose between reviewers.

In the first stage of the review, online database screening yielded 10,657 results, which were retained in addition to one record discovered during a previous literature review. After deleting duplicates, two reviewers independently screened titles and abstracts of 7,886 articles. As detailed below (see Figure 1), this first screening led to the retention of 32 articles whose full-texts were assessed for eligibility. Full-text screening yielded a total of 13 articles that were included in the scoping review. The PRISMA flowchart diagram of this selection process is shown in Figure 1 (Moher, Liberati, Tetzlaff, & Altman, 2009). Most of the excluded articles did not investigate profiles or trajectories of adjustment in the target population, while other studies were excluded because they did not use person-centered approaches to identify subgroups of the study population, or because not all participants had experienced exposure to IPV prior to age 18. Table 1 shows the main characteristics of the 13 studies that met the eligibility criteria, including their designs, sample characteristics, outcome measured, and the profiles of adjustment that were identified with the specific factors discriminating among profiles. The table also shows the standardized measures used to assess adjustment outcomes in the study populations.

Results

In this section, we will first describe the characteristics of the studies selected for review, followed by a critical analysis and synthesis of the selected studies.

Characteristics of Included Studies Publications Timeline

As shown in Figure 2, since 1998, when the first study on profiles of adjustment in children exposed to IPV was published, approximately one article per year has been published on this topic. The years 2008 and 2016 are exceptions, with two and four articles published in these years, respectively (Lang & Stover, 2008; Spilsbury et al., 2008; McDonald, Corona et al., 2016; McDonald, Graham-Bermann et al., 2016; McDonald, Shin et al., 2016). Overall, the timeline of these publications

suggests a trend of consistent interest in the use of person-centered approaches to study this population.

Geographic Areas

All selected studies were conducted in North America. Specifically, more than 80% (n=11) were conducted in the United States of America, while less than 20% (n=2) took place in Canada (Doucet & Fortin, 2014; Piotrowski, 2011).

Study Designs

All studies that met our inclusion criteria used a cross-sectional design in which data were collected at only one point in time from all participants. Our comprehensive literature search did not identify any studies investigating adjustment trajectories over multiple timepoints in the target population, unveiling a lack of data on the changes over time in the adjustment of young people exposed to IPV. It is noteworthy that our comprehensive search of the literature did not identify any work that investigated trajectories of adjustment over two or more time points. Therefore, our review revealed a clear lack of knowledge concerning if, and how, resilience profiles change over time in this population, which leaves many questions on the developmental sequelae of exposure to IPV unanswered.

Cluster analysis was the most common person-centered statistical technique used to identify subgroups of adjustment outcomes as it was adopted in almost 70% of the studies (n=9). The remaining four studies published in more recent years used the structural equation modeling (SEM) techniques of latent profile analysis (LPA) and regression mixture modeling (Grogan-Kaylor et al., 2017; McDonald, Corona et al., 2016; McDonald, Graham-Bermann et al., 2016; McDonald, Shin et al., 2016).

Study Populations

The sample sizes of selected studies ranged from 47 sibling pairs (Piotrowski, 2011) to 398 adolescents (Sianko, Hedge, & McDonnell, 2016), with participants ranging in age from 2 to 18 years across studies. Recruitment was conducted in a variety of settings in both urban and rural areas, including community settings, shelters, and other agencies. Specifically, almost half of the studies (n=6) included samples recruited exclusively from community settings, mostly in urban areas (Lang & Stoven, 2008; McDonald, Graham-Bermann et al., 2016; Piotrowski, 2011; Spilsbury et al., 2008), with only two studies that recruited participants from the community in rural areas (Graham-Bermann et al., 2009; Sianko et al., 2016). Three studies involved mixed samples that were recruited from community

settings as well as shelters (Allen, Wolf, Bybee, & Sullivan, 2003; Grogan-Kaylor et al., 2017; McDonald, Corona, et al., 2016), while the remaining four studies included families recruited exclusively from shelters (Grych, Jouriles, Swank, McDonald, & Norwood, 2000; Hughes & Luke, 1998) or from shelters and other agency settings (Doucet & Fortin, 2014; McDonald, Shin et al., 2016).

Definition of Exposure to IPV

In accordance with the most recent definition of IPV exposure (Center for Disease Control and Prevention, 2018), which emphasizes that IPV is not limited to physical violence only, but also includes psychological/emotional abuse as well as other acts of violation of human rights, some of the included studies ($n=5$) used exposure to any type of IPV as an inclusion criterion (Grogan-Kaylor et al., 2017; Lang & Stover, 2008; McDonald, Graham-Bermann et al., 2016; Sianko et al., 2016; Spilsbury et al., 2008). Other studies ($n=4$) assessed only exposure to physical IPV (Graham-Bermann et al., 2009; Grych et al., 2000; Hughes & Luke, 1998; Piotrowski, 2011), or exposure to physical IPV and psychological/emotional IPV ($n=4$; Allen et al., 2003; Doucet & Fortin, 2014; McDonald, Corona et al., 2016; McDonald, Shin et al., 2016).

Adjustment Outcomes

In the vast majority of selected studies, resilience was defined as the absence of adjustment problems. Adjustment problems were most often assessed by measuring internalizing and externalizing problems such as depression, anxiety, PTSD symptoms, aggression, and defiant and rule-breaking behaviour. Specifically, almost 70% of included studies ($n=9$) assessed both internalizing and externalizing problems of participants using mostly maternal-reports (Doucet & Fortin, 2014; Graham-Bermann et al., 2009; Grych et al., 2000; Hughes & Luke; Lang & Stover, 2008; McDonald, Graham-Bermann et al., 2016; McDonald, Shin et al., 2016; Piotrowski, 2011; Spilsbury et al., 2008). Other aspects of participants' well-being such as self-esteem, trauma history, and empathy were also often measured (70%; $n=9$). McDonald and colleagues (2016) assessed adjustment in a sample of school-age children by measuring school, social, and activities competencies, together with the frequency of IPV exposure. In another investigation, the authors assessed children's reactivity to witnessing IPV episodes through maternal- and child-reports and used this information as an indicator of future adjustment (Allen et al., 2003). Sianko, Hedge, and McDonnell (2016) assessed adolescent depression, problem-solving attitudes, and self-efficacy using self-

report measures to identify different profiles of adjustment in teens exposed to IPV. Finally, in the most recent article reviewed (Grogan-Kaylor et al., 2017), the authors assessed attitudes and beliefs about violence in a sample of school-age children, and based on past work demonstrating the association between maladaptive beliefs about violence and future actual use of violence in interpersonal relationships (Graham-Bermann et al., 2016), they used this information as an indicator of future maladjustment.

Profiles of Adjustment

Across studies, the number of profiles identified ranged from two (Grogan-Kaylor et al., 2017) to five (Grych et al., 2000; Hughes & Luke, 1998; McDonald, Corona et al., 2016; Piotrowski, 2011). All selected studies identified one resilient profile characterized by the absence of adjustment problems and healthy functioning as indicated by high self-esteem, high self-efficacy, constructive problem-solving abilities, low emotional reactivity and sensitivity, high empathy, and adaptive beliefs about violence. In all four studies that identified five profiles of adjustment among study participants (Grych et al., 2000; Hughes & Luke, 1998; McDonald, Corona et al., 2016; Piotrowski), there was at least one resilient profile including children with no adjustment problems and healthy functioning (ranging from 13% to 31% of the sample) and at least one profile characterized by severe adjustment problems and compromised functioning (6%-39%), with the remaining profiles characterized by a combination of mild adjustment problems and average to high functioning (15%-36%). Four additional studies distinguished three profiles of adjustment among the study participants (McDonald, Graham-Bermann et al., 2016; McDonald, Shin et al., 2016; Sianko et al., 2016; Spilsbury et al., 2008), which included one resilient profile (46%-67%), one profile characterized by mild adjustment problems and moderate functioning (12%-44%), and one profile characterized by more severe internalizing and externalizing problems (6%-21%). Compared to the other selected studies, these four studies reported the highest proportions of participants in the resilient profiles, which varied between 46% and 67%, and the lowest proportions in the maladjusted profiles, which ranged between 6% and 21%. A similar pattern can be seen across studies that identified four profiles of adjustment (Allen et al., 2003; Doucet & Fortin, 2014; Graham-Bermann et al., 2009; Lang & Stover, 2008). In these studies, the proportions of participants included in the resilient profiles varied between 20-40%, while between 10%-32% of the study populations presented

more severe and multiple internalizing and externalizing problems. The remaining participants showed a combination of mild internalizing and externalizing problems, or only internalizing/externalizing problems in the form of severe depressive symptoms or PTSD symptoms with compromised functioning (e.g., low self-esteem).

Factors Discriminating among Profiles of Resilience and Psychopathology

All selected studies investigated a set of factors that the authors hypothesized would significantly discriminate among the different profiles of adjustment identified in the study populations, including individual-level, family-level, and environmental-level variables. Across studies, the most common individual-level factor examined was child age (included in 12 of the 13 studies), which was significant in only three studies (Grogan-Kaylor, 2017; Hughes & Luke, 1998; Piotrowski, 2011). Maternal level of education as well as child/adolescent sex and ethnicity

were tested in almost 70% of the selected studies ($n=9$). A higher maternal level of education was a significant predictor of resilience in almost 50% of these cases ($n=4$; McDonald, Corona et al., 2016; McDonald, Shin et al., 2016; Sianko et al., 2016; Spilsbury et al., 2008), while child/adolescent ethnicity and sex were found to significantly discriminate among profiles of resilience and psychopathology in only three studies (McDonald, Graham-Bermann et al., 2016; McDonald, Shin et al., 2016; Sianko et al., 2016) and one study (Spilsbury et al., 2008), respectively. Two family-level factors, household/family income and maternal age, were included in several selected studies ($n=7$), but were significant in only a minority of them ($n=3$; Hughes & Luke, 1998; McDonald, Corona et al., 2016; Sianko et al., 2016), indicating that older maternal age and higher family income may contribute to resilience in young people exposed to IPV.

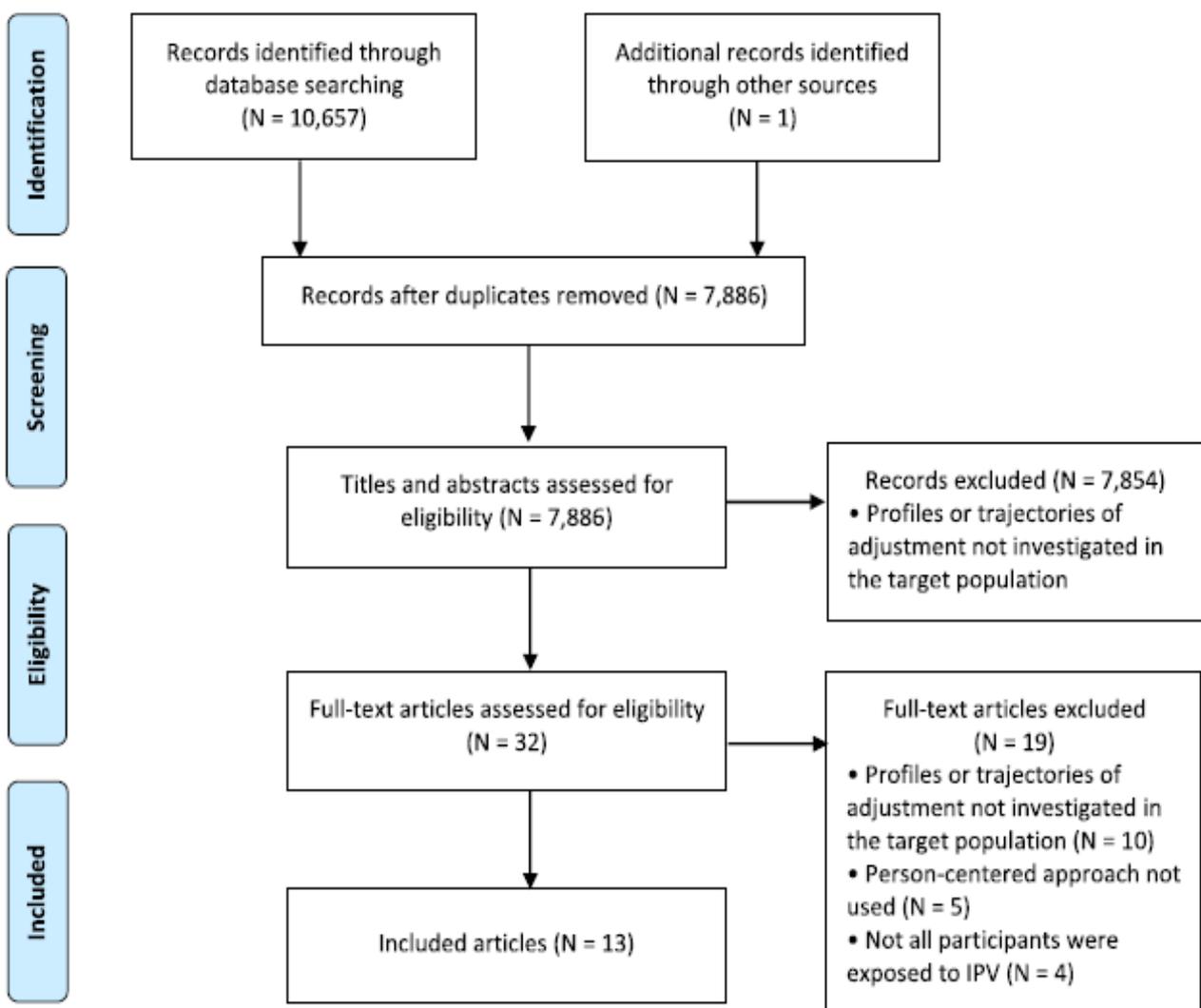


Figure 1. Flowchart of search results

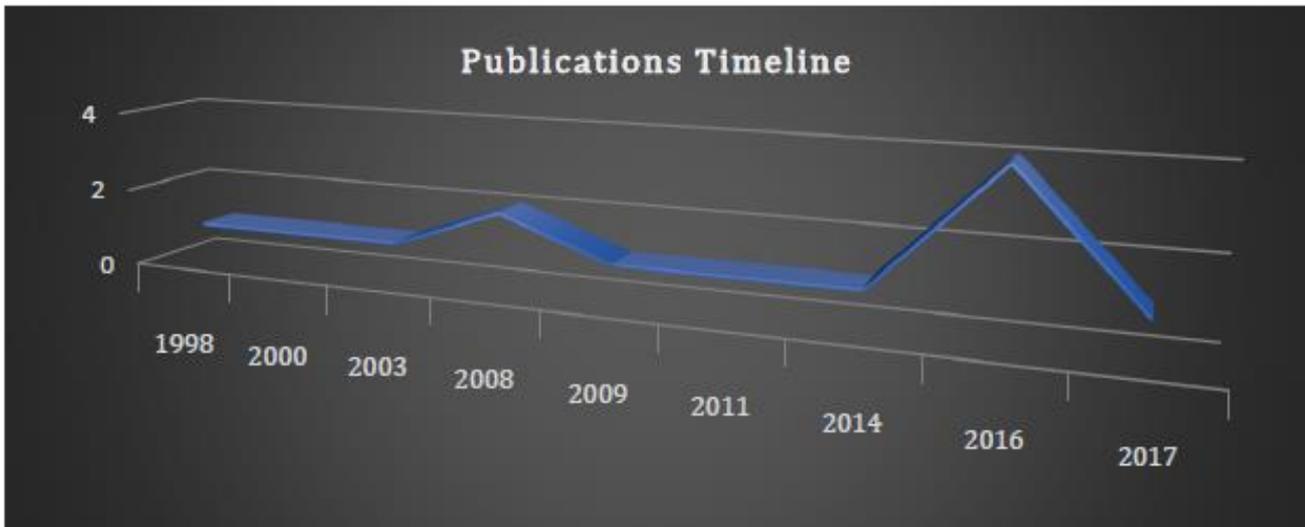


Figure 2. Publication year timeline of included articles

The severity and frequency of IPV were investigated in about 30% of the selected studies ($n=4$). In 75% of the cases a significant association was found between higher frequency and severity of IPV and more severe adjustment problems in the study populations (Graham-Bermann et al., 2009; Allen et al., 2003; Grych et al., 2000). Furthermore, the length of childhood IPV exposure was examined in five studies (40%) and all these investigations, except one, found that shorter exposure to IPV was associated with more positive functioning in children and adolescents (Allen et al., 2003; McDonald, Corona et al., 2016; McDonald, Graham-Bermann et al., 2016; Hughes & Luke, 1998). These findings indicate that early interventions focused on interrupting the exposure to IPV are of primary importance for promoting a positive adjustment in this population. Similarly, a few selected studies found that the presence of concurrent child abuse in the family ($n=2$) and additional ACEs in the child's life history ($n=1$) predicted poorer child adjustment (Doucet & Fortin, 2014; Grych et al., 2000; Lang & Stover, 2008). Only one study tested this hypothesis without finding any significant effects (Hughes & Luke, 1998).

Maternal mental health is one of the most commonly studied family-level factors in the scholarly literature on exposure to IPV due to the important influence of caregiver mental health on the quality of the caregiver-child relationship, which in turn is essential to healthy child development (D'Andrea & Graham-Bermann, 2016; Levendosky & Graham-Bermann, 2001). Surprisingly, only five of the selected studies tested this hypothesis (40%), which was confirmed in all cases but one (Hughes & Luke, 1998); better maternal mental

health was significantly and positively associated with resilience in children and adolescents exposed to IPV (Graham-Bermann et al., 2009; Grogan-Kaylor et al., 2017; Hughes & Luke, 1998; Lang & Stover, 2008). Furthermore, three studies that assessed the association between the quality of the mother-child relationship and child adjustment concluded that a more positive mother-child relationship characterized by warmth and support predicted resilience in children exposed to IPV (Doucet & Fortin; Lang & Stover, 2008; Piotrowski, 2011). Similarly, all studies that tested the role of maternal parenting practices and family functioning in predicting the adjustment of children and adolescents exposed to IPV ($n=3$) found that positive parenting practices and engagement, parental monitoring, and functional family problem-solving abilities predicted resilience in this population (Graham-Bermann et al., 2009; Grogan-Kaylor et al., 2017; Sianko et al., 2016).

Child perceptions and appraisals of IPV as well as whether the child lives with the IPV perpetrator were tested in four investigations and found to be significantly associated with the outcome variables in all cases but one (Allen et al., 2003; Doucet & Fortin, 2014; Grych et al., 2000). Specifically, consistent with empirical findings of previous research (Miller, Howell, & Graham-Bermann, 2014), the absence of attributions of threat and self-blame as well as living without the IPV perpetrator were significant predictors of resilience in children and adolescents who have been exposed to IPV.

A variety of other factors have been investigated in the included studies, but no clear linkages to profiles of resilience have emerged. For example, maternal marital status and employment status, relationship of the IPV

perpetrator to the child, maternal IPV perpetration, and number of children in the family have all been examined. In most cases there was no association between these variables and child outcomes, with only a few exceptions (Allen et al., 2003; Hughes & Luke, 1998; Lang & Stover, 2008; McDonald, Corona et al., 2016; McDonald, Graham-Bermann et al., 2016; Piotrowski, 2011).

Exploratory work has identified other variables that are promising but need further investigation and replication. These include child depressive symptoms, child fears and worries about maternal safety, child parentification, the quality of sibling relationships, adolescent and peer attitudes toward substance use, family type, family social support, exposure to animal cruelty, and neighbourhood safety (Allen et al., 2003; Ducet & Fortin, 2014; Graham-Bermann et al., 2009; Hughes & Luke, 1998; McDonald, Graham-Bermann et al., 2016; Piotrowski, 2011; Sianko et al., 2016). Specifically, positive sibling relationships characterized by high warmth and low hostility, negative adolescent and peer attitudes toward substance use, adequate family social support, safer neighbourhoods, and the involvement of two parents in the child's life, rather than only one, were all factors that predicted resilience in children and adolescents exposed to IPV. Conversely, child depressive symptoms, serious fears and worries about maternal safety, child parentification within the family, and exposure to animal cruelty, all predicted poor adjustment in this population. As noted, due to the limited numbers of studies that have addressed these variables, caution should be used in interpreting their results and further investigation is warranted.

Discussion

This scoping review investigated profiles of adjustment in children and adolescents exposed to IPV with an emphasis on resilience profiles and the factors that promoted more positive outcomes. From our review, it became apparent that some important characteristics of the selected studies changed over the past two decades (1998-2017). We observed a shift from heavy reliance upon shelter-based samples and the assessment of physical IPV only, to greater use of community-based samples and broader assessments of IPV behaviours, which included physical and sexual violence, as well as financial and psychological/emotional abuse. We can speculate that this shift was partly in response to consistent empirical evidence showing that community-based samples provide a more valid picture of the most common type of IPV found in the general population. In

fact, some authors (Johnson, 1995; 2006; Straus, 2011) have demonstrated that agency data gathered from shelters, courts, police, and hospitals provide access primarily to couples experiencing a more rare form of IPV called intimate terrorism, which involves moderate to severe violence as part of a general strategy of power and control and is almost exclusively male perpetrated. On the contrary, community-based recruitment is more likely to include intimate partners who engage in situational couple violence, which is far more common and more gender symmetric, and occurs when couple conflict escalates into mild to moderate violence that is not part of a general pattern of control. We can also argue that the shift to a more inclusive definition of IPV has coincided with a greater awareness worldwide for human rights, coupled with the recognition that devastating consequences are not exclusive to acts of physical violence, but also result from psychological/emotional abuse as well as financial abuse, which can include controlling or denying access to family finances and employment (Center for Disease Control and Prevention, 2018). Consequently, in recent years, policy makers, researchers, and professionals working in this field have progressively turned their attention to the prevention, identification, study, and treatment of these more covert types of IPV that bring about harmful consequences for both adults and children involved.

All of the reviewed investigations identified at least one "high maladjustment profile" including children and adolescents who presented a combination of severe and mild internalizing and externalizing problems in association with compromised functioning. All reviewed studies also distinguished a profile that can be labeled as a "moderate maladjustment profile" because it included children and adolescents who presented a combination of mild and moderate internalizing and externalizing problems, only internalizing problems such as depressive and anxiety symptoms, or only externalizing symptoms such as aggressive and rule-breaking behaviour. Furthermore, consistently across studies, at least one "resilient" profile of adjustment was identified, which included between 13% and 67% of participants across studies. Resilient profiles were typically characterized by the absence of adjustment problems and higher functioning (e.g., high self-esteem, self-efficacy, and constructive problem-solving abilities) among children and adolescents exposed to IPV. This operationalization of resilience, described as the absence of adjustment problems, presents important limitations, especially from a prevention and treatment perspective. In order to truly promote well-being and positive quality of life in this

population both in the short- and long-term, we recommend that future research abandons this narrow definition of resilience and instead moves toward adopting a resilience framework that emphasizes individual and relational strengths such as positive coping, well-being, quality of life, and post-traumatic growth (Tedeschi & Calhoun, 2004). Adopting a multi-level resilience framework that incorporates individual-level factors of both adults and children (e.g., personality characteristics, parenting practices, and mental and physical health), family-level factors (e.g., family functioning, family social support, and positive family relationships), and environmental-level factors (e.g., neighbourhood safety, school quality, and community services) will help to recognize and promote the positive adjustment of all family members. In turn, healthier individuals will have a greater chance of becoming citizens who make a positive contribution to our society by developing to their full potential.

As shown in Table 2, we also identified some consistent individual-level and family-level factors that predicted resilient profiles in children and adolescents exposed to IPV. These included perceptions and appraisals of IPV that did not involve attribution of threat and self-blame or fears and worries about maternal safety, positive maternal mental health, positive mother-child relationships characterized by low hostility and high warmth, effective maternal parenting practices that did not involve child parentification, and effective family problem-solving abilities (Doucet & Fortin, 2014; Graham-Bermann et al., 2009; Grych et al., 2000; Grogan-Kaylor et al., 2017; Hughes & Luke, 1998; Lang & Stover, 2008; Piotrowski, 2011; Sianko et al., 2016). Some selected studies provided preliminary evidence on the associations between resilience in children and adolescents exposed to IPV and a variety of family-level

and environment-level factors that included negative adolescent and peer attitudes toward substance use, adequate family social support, and living in a safe neighbourhood (Sianko et al., 2016). Limited work to date on these promising factors underscores the need to implement a multisystemic definition of resilience that includes all levels of human bio-social ecology when studying childhood IPV exposure (Ungar, 2011; 2012; Ungar, Ghazinour, & Richter, 2013).

Traditionally, the term resilience has indicated positive adaptation despite adversity, including maintaining and/or returning to healthy functioning after exposure to significant adversity (Luthar, Cicchetti, & Becker, 2000; Masten, 2011; Rutter, 2010). However, some scholars have advocated for the adoption of a multisystemic and culturally sensitive definition of resilience (Ungar, 2008; 2011). Specifically, according to Ungar, in the context of significant adversity, resilience is better understood as the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways (Ungar 2008; 2012). This definition emphasizes the processes by which individuals and groups of individuals (e.g., families, ethnic minorities, and communities) secure for themselves the psychological, social, and physical resources that make human development more likely to succeed despite contexts of adversity (Ungar et al., 2013). Understood this way, resilient individuals have the capacity to find and access resources that bolster well-being, and this process is promoted by families, communities and governments that provide these resources in ways that individuals value.

Table 2. Most common factors that promote resilience in children and adolescents exposed to IPV

Discriminating Factors
Child/Adolescent perceptions and appraisals of IPV
Maternal mental health*
Quality of the mother-child relationship
Maternal parenting practices
Family functioning and problem-solving abilities

* Maternal mental health includes: maternal depression, general distress, and PTSD and anxiety symptoms.

This perspective shifts our understanding of resilience from an individual characteristic, popular with western-trained researchers and human services providers, to a more relational understanding of well-being embedded in a multisystemic bio-social-ecological framework (Ungar et al., 2013). Three principles guide this multisystemic bio-social-ecological model of resilience: 1) *equifinality*: there are many proximal processes that can lead to many different, but equally viable, expressions of human development associated with well-being; 2) *differential impact*: the nature of the risks children face, their perceptions of the resources available to mitigate those risks, and the quality of the resources that are accessible make proximal processes more or less influential to children's development; and 3) *contextual and cultural moderation*: different contexts and cultures provide access to different processes associated with resilience as it is defined locally (Ungar, 2008; 2011; 2012; Ungar et al., 2013). These principles show immense potential to broaden the scope and relevance of future research on the effects of exposure to IPV. The investigation of the nature of resilience, and the factors promoting resilience in this population should encompass all levels of human bio-social ecology including the micro-systems or environments in which the developing person is directly involved, the meso-systems or interactions between micro-systems, the exo-systems or distal social interactions that have the potential to influence child development indirectly, the macro-systems or socio-cultural values and structures, and the chrono-systems or changing historical factors (Bronfenbrenner, 2005; Ungar, 2013). Unfortunately, as shown in Figure 3, the studies selected for our scoping review have almost exclusively assessed individual-level and family-level factors influencing resilience, and have also used a narrow definition of resilience that focuses on the absence of adjustment problems instead of on well-being and post-traumatic growth (Tedeschi & Calhoun, 2004). Figure 3 summarizes the factors identified in our review that significantly discriminated among different profiles of resilience and psychopathology in children and adolescents exposed to IPV; we divided these across the different levels of human bio-social ecology. Overall, the resilience literature suggests that the more a child is exposed to adversity (e.g., exposure to IPV and poverty), the more the child's resilience depends on the quality of the environment rather than on individual qualities, and on the resources that are available and accessible to promote well-being. Therefore, the adoption of a multisystemic bio-social ecological model of resilience when

developing prevention and intervention programs, policies, and research targeting IPV-affected families is a critical priority. In research, this can be accomplished by developing standardized measures that assess the multiple levels of the human bio-social-ecology and applying them in investigations of resilience in children and adolescents who have been exposed to IPV. Policies, as well as prevention and intervention programs should address all levels of human bio-social-ecology by strengthening not only the individual factors that have been shown to promote resilience in adults and children, but also the family- and environmental-level factors that are consistently associated with resilient trajectories of development over-time.

Despite the consistent association found in the scholarly literature between longer and more severe exposure to IPV and greater severity of adjustment problems in children and adolescents (D'Andrea & Graham-Bermann, 2016; Miller-Graff et al., 2016), only a small proportion of the studies that met our eligibility criteria tested this association, which was statistically significant in approximately 60% of the cases. Therefore, it is recommended that future research investigates this association more closely to elucidate the specific characteristics of the violence children experience at home. Similarly, given the commonality with which adverse childhood experiences (ACEs) such as child abuse and neglect, poverty, community violence, and parental mental illness co-occur (Afifi, 2014; Holt Buckley, & Whelan, 2008; Kimball, 2016), it is surprising that only a small number of selected studies assessed additional ACEs together with IPV exposure (Doucet & Fortin, 2014; Grych et al., 2000; Hughes & Luke, 1998; Lang & Stover, 2008; McDonald, Graham-Bermann et al., 2016). Based on this finding, we recommend that future research includes an assessment of multiple ACEs in this population in order to discriminate the specific effects of IPV exposure on the adjustment of exposed children and adolescents, and test for a possible dose-response effect in which exposure to multiple ACEs or traumatic events in childhood or adolescence leads to more severe adjustment problems. In this context, the hypothesis that children and adolescents who are exposed to a fewer number of ACEs are more likely to show resilience following adversity should also be tested.

Factors such as child age, sex, and ethnicity, as well as household/family income did not seem to significantly discriminate different profiles of adjustment in our selected studies. We can speculate that in some cases this may have been due to the high degree of homogeneity in

the ethno-cultural and socio-economic characteristics of the families participating in these studies. Therefore, it is essential that future research investigates the role of these factors using designs that integrate cultural safety and purposively recruit more ethno-culturally diverse samples of families (Gerlach, 2012). Future research should also more carefully assess violence perpetrated by multiple family members, which was measured in only a small percentage of the selected studies. Although mutual partner violence has traditionally been overlooked in early research on IPV, it should be assessed and its effects on all family members should be measured. More recently, it has been recognized that all family members should be included in the assessment of violence in the home, including siblings and other family members (Cameranesi & Piotrowski, 2018). Interestingly, paternal perspectives are still largely overlooked in the literature on childhood IPV exposure, as reflected in the complete absence of fathers or father figures in the included studies.

The most unexpected finding of this scoping review was the complete absence of longitudinal research

investigating trajectories of adjustment in children and adolescents over time. Given the limitations of cross-sectional research (Bowen & Wiersema, 1999), it is imperative that future research on childhood IPV exposure addresses this limitation of current research in order to provide a more solid basis for the development of prevention and intervention programs that target this population of at-risk families.

Summary of Recommendations for Practice, Policy, and Research

From a prevention and treatment perspective, it is critical to identify not only the factors that promote resilience in children and adolescents exposed to IPV, but also the contexts in which differing factors are influential. This information is crucial for the development of prevention and treatment programs that focus on strengthening these factors because it will enhance their effectiveness and improve health and adjustment outcomes in the short- and long-term.

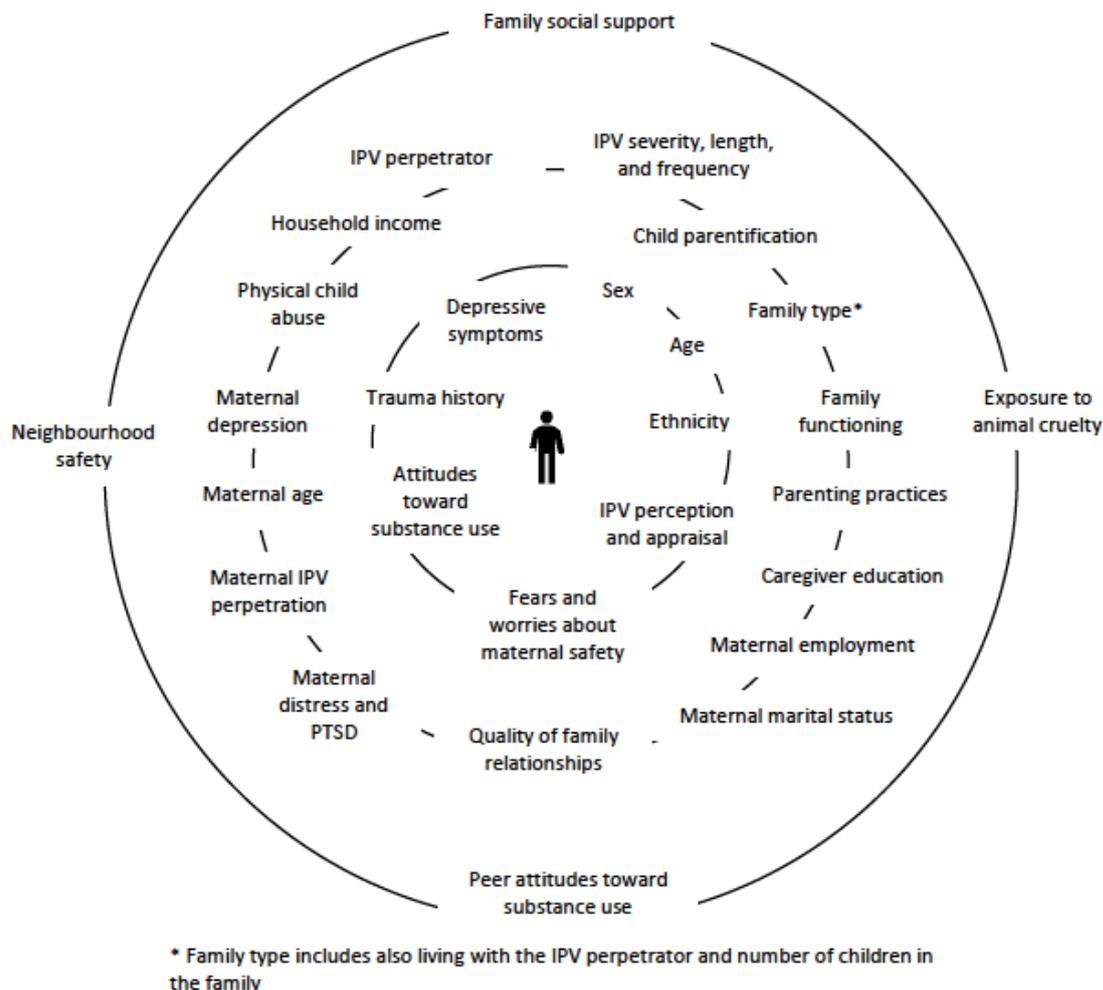


Figure 3. The bio-social ecological predictors of resilience in children and adolescents exposed to IPV

For example, data confirm the importance of maternal mental health and the quality of the mother-child relationship for positive child and adolescent adjustment; therefore, research evaluating environmentally-focused interventions such as parent support initiatives (Cowan, Cohen, Cowan, & Pearson, 1996), parent-school liaison programs (Duque, Klevens, Ungar, & Lee, 2005; Nix, Pinderhughes, Bierman, & Maples, 2005) and wraparound initiatives for families involved with child welfare services (Burford & Hudson, 2000) should address how changing the ecologies of children exposed to IPV positively impacts their resilience processes. Further recommendations for practice, policy, and research based on the results of our scoping review are outlined below.

Practice

- To adopt an environment-focused rather than child-centered approach to intervention that emphasizes changes to the multiple levels of the environment in ways that promote healthy child and adolescent development (Ungar et al., 2013).
- To develop intervention programs that reflect the complexity of a multi-systemic view of resilience to optimize development and well-being of children exposed to IPV.
- To implement and evaluate parent support initiatives, parent-school liaison programs, wraparound initiatives for families involved with child welfare services, and programs oriented towards community responses to trauma.

Policy

- To implement and evaluate public policies that develop and promote the resources available to families and, as a result, have significant positive effects on child and adolescent development.
- To develop policies that reduce stigma around help-seeking behaviours.
- To develop policies that address all levels of the human bio-social ecology (i.e., micro-systems, meso-systems, exo-systems, macro-systems, and chrono-systems).

Research

- To conduct longitudinal research that measures changes in the adjustment of children and adolescents exposed to IPV over time.
- To develop research designs and methodologies that follow principles of cultural safety and purposefully include more diverse populations.
- To involve more fathers or father figures in research on childhood exposure to IPV.

- To assess distal factors at the meso-system, exo-system, macro-system, and chrono-system levels when investigating resilience in children and adolescents who have been exposed to IPV such as neighbourhood safety, community-based health and social services, community violence, school system, extended family, social support from friends, parental workplace, and socio-cultural systems.
- To define and measure resilience as a multi-systemic bio-social ecological construct with a focus on individual and interpersonal strengths, subjective well-being, quality of life and post-traumatic growth.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

No financial disclosures were reported by the authors of this paper.

ORCID

Margherita Cameranesi  <https://orcid.org/0000-0001-5407-7693>

Caroline C. Piotrowski  <https://orcid.org/0000-0001-5407-7693>

Douglas A. Brownridge  <https://orcid.org/0000-0002-9880-4669>

Received: August 8, 2019

Accepted: November 7, 2019

Published Online: January 2, 2020

References

- Afifi, T. O. et al. (2014). Child abuse and mental disorders in Canada. *Canadian Medical Association Journal*, 186, E324-E332.
- Allen, N. E., Wolf, A. M., Bybee, D. I., & Sullivan, C. M. (2003). Diversity of children's immediate coping responses to witnessing domestic violence. *Journal of Emotional Abuse*, 3(1-2), 123-147.
- Arksey H., O'Malley L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32.
- Bowen, H. P., & Wiersema, M. F. (1999). Matching method to paradigm in strategy research: limitations

- of cross-sectional analysis and some methodological alternatives. *Strategic Management Journal*, 20(7), 625-636.
- Burford, G., & Hudson, J. (Eds.). (2000). *Family group conferencing: New directions in community-centered child and family practice*. New York, NY: Aldine de Gruyter.
- Cameranesi, M., & Piotrowski, C. C. (2018). Self-Esteem in Children Exposed to Intimate Partner Violence: a Critical Review of the Role of Sibling Relationships and Agenda for Future Research. *Journal of Child & Adolescent Trauma*, 11, 339-351.
- Campbell J. A., Walker R. J., Egede L. E. (2016). Associations between Adverse Childhood Experiences, High-Risk Behaviors, and Morbidity in Adulthood. *American Journal of Preventive Medicine*, 50(3), 344-352.
- Center for Control Disease and Prevention – U.S. Department of Health and Human Services. (2018). *Child Abuse and Neglect Prevention*: Atlanta, GA. Accessed October 2018. Retrieved from <https://www.cdc.gov/violenceprevention/childabuseandneglect/index.html>
- Chan Y. C., Yeung J. W. K. (2009). Children living with violence within the family and its sequel: A meta-analysis from 1995–2006. *Aggression and Violent Behavior*, 14(5), 313-322.
- Cicchetti, D., Rogosch, F., Lynch, M., & Holt, K. (1993). Resilience in maltreated children: Processes leading to adaptive outcome. *Development and Psychopathology*, 5(4), 629-647. doi: 10.1017/S0954579400006209
- Colquhoun H. L., Levac D., O'Brien K. K., Straus S., Tricco A. C. et al. (2014). Scoping reviews: time for clarity in definition, methods, and reporting. *Journal of Clinical Epidemiology*, 67(12), 1291-4.
- Cowan, P. A., Cohen., D. A., Cowan., C. P., & Pearson, J. L. (1996). Parents' attachment histories and children's externalizing and internalizing behaviours: Exploring family systems models of linkage. *Journal of Consulting and Clinical Psychology*, 64, 53–63.
- D'Andrea W., Graham-Bermann S. A. (2016). Social Context and Violence Exposure as Predictors of Internalizing Symptoms in Mothers and Children Exposed to Intimate Partner Violence. *Journal of Family Violence*, 1-11.
- Davis K., Drey N., Gould D. (2009). What are scoping studies? A review of the nursing literature. *International Journal of Nursing Studies*, 46, 1386–400.
- Doucet, M., & Fortin, A. (2014). Review of patterns of adaptation in children exposed to spousal violence. *Canadian Journal of Behavioural Science*, 46, 162-174. doi:10.1037/a0028368
- Duque, L., Klevens, J., Ungar, M., & Lee, A. (2005). Violence prevention programming in Colombia; Challenges in project design and fidelity. In M. Ungar (Ed.), *Handbook for working with children and youth: Pathways to resilience across cultures and contexts* (pp. 455–472). Thousand Oaks, CA: Sage Publications.
- Evans S. E., Davies C., DiLillo D. (2018). Exposure to domestic violence: A meta-analysis of child and adolescent outcomes. *Aggression and Violent Behavior*, 13(2), 131-140.
- Gerlach, A. J. (2012). A critical reflection on the concept of cultural safety. *Canadian Journal of Occupational Therapy*, 79, 151-158. doi: 10.2182/cjot.2012.79.3.4
- Graham-Bermann S. A., Cater A. K., Miller-Graff L. E. and Howell K. H. (2016). Adults' Explanations for Intimate Partner Violence During Childhood and Associated Effects. *Journal of Clinical Psychology*, 0(0), 1-17. doi: 10.1016/j.chiabu.2009.01.002
- Graham-Bermann S. A., Gruber G., Howell K. H., Girz L. (2009). Factors discriminating among profiles of resilience and psychopathology in children exposed to intimate partner violence (IPV). *Child Abuse and Neglect*, 33(9), 648-60.
- Grogan-Kaylor, A. C., Stein, S. F., Clark, H. M., Galano, M. M., & Graham-Bermann, S. A. (2017). Profiles of Children's Thinking About Violence in Families Exposed to Intimate Partner Violence. *Journal of Child and Family Studies*, 26, 2824–2833. doi: 10.1007/s10826-017-0787-4
- Grych J. H., Jouriles E. N., Swank P. R., McDonald R., Norwood W. D. (2000). Patterns of adjustment among children of battered women. *Journal of Consulting and Clinical Psychology*, 68(1), 84-94.
- Hagan M. J., Hulette A. C., Lieberman A. F. (2015). Symptoms of Dissociation in a High-Risk Sample of Young Children Exposed to Interpersonal Trauma: Prevalence, Correlates, and Contributors. *Journal of Traumatic Stress*, 28(3), 258-61.
- Hamby, S. L., Finkelhor, D., Turner, H. A., & Ormrod, R. (2011). Children's exposure to intimate partner violence and other family violence (pp. 1–12). *Juvenile justice bulletin*. Washington, DC: U.S. Government Printing Office.
- Hanson R. F., Self-Brown S., Fricker-Elhai A. E., Kilpatrick D. G., Saunders B. E., Resnick H. S. (2006). The relations between family environment

- and violence exposure among youth: Findings from the national survey of adolescents. *Child Maltreatment*, 11(1), 3-5.
- Holden G. (2003). Children exposed to domestic violence and child abuse: Terminology and taxonomy. *Clinical Child and Family Psychology Review*, 6(3), 151-160.
- Holt S., Buckley H., Whelan S. (2008). The impact of exposure to domestic violence on children and young people: A review of the literature. *Child Abuse and Neglect*, 32(1), 797-810.
- Howell, K. H., Barnes, S. E., Miller, L. E., & Graham-Bermann, S. A. (2016). Developmental variations in the impact of intimate partner violence exposure during childhood. *Journal of Injury and Violence Research*, 8(1), 43-57.
- Hughes H. M., Luke D. A. (1998). Heterogeneity in Adjustment Among Children of Battered Women In: Holden G. W., Geffner R., Jouriles E. N., editors. *Children Exposed to Marital Violence: Theory, Research, and Applied Issues*. Washington, DC: American Psychological Association, p. 185-221.
- Johnson M. P. (1995). Patriarchal Terrorism and Common Couple Violence: Two Forms of Violence against Women. *Journal of Marriage and Family*, 57(2), 283-294.
- Johnson M. P. (2006). Conflict and Control: Gender Symmetry and Asymmetry in Domestic Violence. *Violence against Women*, 12(11), 1003-18.
- Kimball E. (2016). Edleson Revisited: Reviewing Children's Witnessing of Domestic Violence 15 Years Later. *Journal of Family Violence*, 31(5), 625-637.
- Kitzmann K. M., Gaylord N. K., Holt A. R., Kenny E. D. (2003). Child Witnesses to Domestic Violence: A Meta-Analytic Review. *Journal of Consulting and Clinical Psychology*, 71(2), 339-352.
- Landau, J., Mittal, M., & Wieling, E. (2008). Linking human systems: Strengthening individuals, families, and communities in the wake of mass trauma. *Journal of Marital and Family Therapy*, 34, 193-209.
- Lang, J. M., & Stover, C. S. (2008). Symptom patterns among youth exposed to intimate partner violence. *Journal of Family Violence*, 23(7), 619-629.
- Levac D., Colquhoun H., O'Brien K. K. (2010). Scoping studies: advancing the methodology. *Implementation Science*, 5(69), 1-9.
- Levendosky A. A., Graham-Bermann S. A. (2001). Parenting in battered women: The effects of domestic violence on women and their children. *Journal of Family Violence*, 16(2), 171-192.
- Luthar S. S., Cicchetti D., Becker B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71, 543-562.
- Masten A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology*, 23, 493-506.
- McDonald, S. E., Corona, R., Maternick, A., Ascione, F. R., Williams, J. H., & Graham-Bermann, S. A. (2016). Children's exposure to intimate partner violence and their social, school, and activities competence: latent profiles and correlates. *Journal of Family Violence*, 31(7), 849-864. doi: 10.1007/s10896-016-9846-7
- McDonald, S. E., Graham-Bermann, S. A., Maternick, A., Ascione, F. R., & Williams, J. H. (2016). Patterns of adjustment among children exposed to intimate partner violence: A person-centered approach. *Journal of Child and Adolescent Trauma*, 9, 137-152.
- McDonald, S. E., Shin, S., Corona, R., Maternick, A., Graham-Bermann, S. A., Ascione, F. R., & Herbert Williams, J. (2016). Children exposed to intimate partner violence: Identifying differential effects of family environment on children's trauma and psychopathology symptoms through regression mixture models. *Child Abuse & Neglect*, 58, 1-11. doi: 10.1016/j.chiabu.2016.06.010
- Miller, L., Howell, K., & Graham-Bermann, S. (2014). Developmental Changes in Threat and Self-Blame for Preschoolers Exposed to Intimate Partner Violence (IPV). *Journal of Interpersonal Violence*, 29, 1535-1553. doi: 10.1177/0886260513511533
- Miller-Graff, L. E., Cater, Å. K., Howell, K. H., Graham-Bermann, S. A. (2016). Parent-child warmth as a potential mediator of childhood exposure to intimate partner violence and positive adulthood functioning. *Anxiety Stress Coping*, 29(3), 259-73.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med*, 6(7), e1000097. doi:10.1371/journal.pmed1000097
- Namy, S., Carlson, C., O'Hara, K., Nakuti, J., Bukuluki, P., Lwanyaaga, J., ... & Michau, L. (2017). Towards a feminist understanding of intersecting violence against women and children in the family. *Social Science & Medicine*, 184, 40-48.
- Nix, R. L., Pinderhughes, E. E., Bierman, K. L., & Maples, J. J. (2005). Decoupling the relation between risk factors for conduct problems and the receipt of

- intervention services: Participation across multiple components of a prevention program. *American Journal of Community Psychology*, 36, 307–325.
- Peters, M. D. J., Godfrey C. M., Khalil H, McInerney P, Parker D et al. (2015). Guidance for conducting systematic scoping review. *International Journal of Evidence-Based Healthcare*, 13, 141-6.
- Peters, M. D. J., Godfrey, C. M., McInerney, P., Soares, C. B., Khalil, H., Parker, D. (2015). *The Joanna Briggs Institute Reviewers' Manual 2015: Methodology for JBI Scoping Reviews*. South Australia: The Joanna Briggs Institute.
- Piotrowski C. C. (2011). Patterns of Adjustment Among Siblings Exposed to Intimate Partner Violence. *Journal of Family Psychology*, 25(1), 19-28.
- Piotrowski, C. C., & Cameranesi, M. (2018). Aggression by children exposed to IPV: exploring the role of child depressive symptoms, trauma-related symptoms, & warmth in family relationships. *Child Psychiatry & Human Development*, 49, 360-371.
- Rosenberg, J., & Wilcox, W. B. (2006). The importance of fathers in the healthy development of children. US Department Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, Office of Child Abuse and Neglect.
- Rutter M. (2012). Resilience as a dynamic concept. *Development and Psychopathology*, 24, 335–344.
- Sianko, N., Hedge, J. M., & McDonell, J. R. (2016). Differential Adjustment Among Rural Adolescents Exposed to Family Violence. *Journal of Interpersonal Violence*, 22. doi: 10.1177/0886260516645574
- Slopen N., McLaughlin K. (2013). Exposure to intimate partner violence and parental depression increases risk of ADHD in preschool children. *Evidence-Based Mental Health*, 16(4), 102.
- Spilsbury, J. C., Kahana, S., Drotar, D., Creeden, R., Flannery, D. J., & Friedman, S. (2008). Profiles of behavioral problems in children who witness domestic violence. *Violence & Victims*, 23(1), 3-17.
- Sternberg K. J., Baradaran L. P., Abbott C. B., Lamb M. E., Guterman E. (2006). Type of violence, age, and gender differences in the effects of family violence on children's behavior problems: A mega-analysis. *Developmental Review*, 26(1), 89-112.
- Straus M. A. (2011). Gender symmetry and mutuality in perpetration of clinical-level partner violence: Empirical evidence and implications for prevention and treatment. *Aggression and Violent Behavior*, 16(4), 279-288.
- Suglia, S. F., Duarte, C. S., Chambers, E. C., Boynton-Jarrett, R. (2012). Cumulative Social Risk and Obesity in Early Childhood. *Pediatrics*, 129, e1173-9.
- Suglia S. F., Duarte C.S., Sandel M. T., Wright R. J. (2010). Social and environmental stressors in the home and childhood asthma. *Journal of Epidemiology and Community Health*, 64, 636-642.
- Suglia SF, Sapra KJ, Koenen KC. (2015). Violence and cardiovascular health: A systematic review. *American Journal of Preventive Medicine*, 48(2), 205-212.
- Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1-18.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K., Colquhoun, H. et al. (2016). A scoping review on the conduct and reporting of scoping reviews. *BMC Medical Research Methodology*, 16(1), 15.
- Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work*, 38(2), 218-235.
- Ungar, M. (2011). The social ecology of resilience. Addressing contextual and cultural ambiguity of a nascent construct. *American Journal of Orthopsychiatry*, 81, 1-17.
- Ungar, M. (2012). Social Ecologies and Their Contribution to Resilience. In M. Ungar (Ed.), *The Social Ecology of Resilience: A handbook of Theory and Practice* (pp. 13-32). New York: Springer.
- Ungar, M., Ghazinour, M., & Richter, J. (2013). Annual Research Review: What is resilience within the social ecology of human development? *The Journal of Child Psychology and Psychiatry*, 54, 348-366.
- Vu, N. L., Jouriles, E. N., McDonald, R., Rosenfield, D. (2016). Children's exposure to intimate partner violence: A meta-analysis of longitudinal associations with child adjustment problems. *Clinical Psychology Review*, 46(1), 25-33.
- Wathen, C. N., MacMillan, H. L. (2013). Children's exposure to intimate partner violence: Impacts and interventions. *Paediatrics and Child Health (Canada)*, 18(8), 419-422.
- Wolfe, D. A., Crooks, C. V., Lee, V., McIntyre-Smith, A., Jaffe, P. G. (2003). The effects of children's exposure to domestic violence: A meta-analysis and critique. *Clinical child and family psychology review*, 6(3), 171-187.