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The Impact of Mother's Experience of Intimate Partner Violence on Children's Mental Health

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The Impact of Mother's Experience of Intimate Partner Violence on Children's Mental Health

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Abstract

The Impact of Mother's Experience of Intimate Partner Violence on Children's Mental Health

By Peres Dince

Introduction:

Maternal Intimate Partner Violence (IPV) significantly influences children's mental well-being, with direct exposure profoundly impacting their mental health through witnessing or being aware of violence (Jaffe et al., 1986). Moreover, the indirect impact of IPV on children's mental health operates through maternal mental health difficulties and parenting behavior. Samuelson & Cashman (2008) observed that children of mothers with Post Traumatic Stress Symptoms (PTSs) exhibit heightened emotional negativity. Additionally, research suggests that maternal mental health acts as both a moderator and mediator in the IPV-children's mental health relationship (Yetter, 2022). Understanding these dynamics is essential for effectively addressing children's mental health issues stemming from IPV.

Methods:

A systematic search of PubMed, Embase, and PsycINFO from inception to September 30th, 2023, was conducted. Inclusion criteria comprised studies in English or Indonesian, focusing on mental health issues in children, and addressing both maternal IPV and its impact on children's mental health. Exclusion criteria eliminated studies discussing abuse by non-partners or focusing solely on IPV without considering its effects on children. Only longitudinal studies were included. Covidence facilitated the review process from screening to data export.

Results:

This study identifies four key roles impacting children's mental health: direct IPV impact, maternal mental health, maternal mental health as a mediator, and as a moderator in IPV-child mental health. Assessments examining the association between IPV and various child outcomes, including externalizing problems, internalizing problems, depression, infant socioemotional problems, and children's emotional-behavioral difficulties, all showed statistically significant positive associations, except for the association between IPV and children's emotional-behavioral difficulties, which was not statistically significant. Assessments measuring the association between maternal mental health problems and child outcomes also yielded statistically significant positive associations. Mediation by maternal mental health functioning and depressive symptoms, and moderation by maternal PTSD symptoms, all showed statistically significant positive associations.

Conclusion:

This review underscores the complex interconnection of IPV, maternal mental health, and children's well-being, highlighting factors shaping children's mental health outcomes. Addressing limitations like a lack of information on low-income countries and inadequate research on adolescents necessitates further research and integrated mother-child interventions to protect children's mental health.

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Peres Dince

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Introduction

The foundation of a robust nation lies in the family, serving as the primary setting where the character of future generations takes shape. Consequently, the family environment plays a pivotal role in determining a child's physical and mental growth, influencing their character. Research by Holmes (2013) reveals that intimate partner violence (IPV) is linked to mental health issues and parenting challenges among mothers. Likewise, according to the World Health Organization (WHO), women subjected to IPV face elevated susceptibility to various mental health issues, including but not limited to depression, posttraumatic stress, anxiety, and suicidal tendencies (WHO, 2021). Holmes argues that mothers who are exposed to IPV exhibit altered warmth, attitudes, and behaviors toward their children. Such mothers often grapple with mental health disorders, impacting their interactions with their children and subsequently leading to various issues in the children, including internalizing behavior problems (Yetter, 2022) and externalizing behavior problems (Kalil et al., 2003; Samuelson & Cashman, 2008).

IPV is a behavior within an intimate relationship that causes physical, sexual, or psychological harm including acts of physical aggression, sexual coercion, psychological abuse, and controlling behaviors (Krug et al., 2002). Studies indicate that more than 25% of women, equivalent to around 30 million individuals, encounter contact sexual violence, physical violence, and/or stalking from an intimate partner during their lifetime (Merrick et al., 2018). Likewise, according to a report from the WHO, nearly 27% of women aged 15-49 worldwide, who have been in a relationship, indicate experiencing some physical and/or sexual violence from their intimate partner (WHO, 2021). As a result, children who are in regular proximity to their mothers are prone to witnessing this violence daily.

Exposure to IPV can directly affect children's mental health. In the context of IPV, "exposure" refers to children seeing, hearing, or being aware of violence directed toward one parent figure from his or her partner (Jaffe et al., 1986). Research based on population data reveals that in high-income countries, 8–25% of children, and in middle-income countries, 10–39% of children, witness IPV in their homes (Fang et al., 2015; Gilbert et al., 2009). Consequently, children who witness the abuse of their mother exhibit elevated levels of both externalizing and internalizing behaviors (McFarlane et al., 2003; Wolfe et al., 2003; Harding et al., 2013), psychological distress of depression, anxiety, and post-traumatic stress disorder (Binder et al., 2013). Furthermore, studies indicate that the behavioral functioning of a child is adversely affected after being exposed to abuse directed at their mother (McFarlane et al., 2003). The same study also revealed that children exposed to IPV are more likely to be abused later in their lives. Considering the harmful impact of IPV on the mental well-being of children, the intergenerational transmission of this pattern suggests that the future of these children is at risk.

The indirect impact of IPV on children's mental health goes through maternal mental health difficulties and parenting behavior. Firstly, the effects of IPV on the mental health of mothers are extensively documented. More than half of women who undergo IPV report symptoms such as posttraumatic stress, depression, anxiety, self-harm, and substance abuse, along with social and economic isolation, and homelessness (Beydoun, 2012; Carbone-López et al., 2006). Maternal mental health issues can impact children's outcomes through various avenues, including exposure to stress during pregnancy, the modeling of adverse coping behaviors, indirect negative effects on family stress, and direct impacts on the quality of care given to children (Goodman & Gotlib, 1999). In a study, Samuelson & Cashman (2008) found that children of mothers with PTSs (Post Traumatic Stress Symptoms) are more emotionally negative and labile.

Parenting behavior or parent-child interactions is another potential pathway by which IPV could impact children's emotional-behavioral functioning. Survivor mothers of partner violence may exhibit less effective parenting due to compromised mental health, thereby elevating the risk of their children experiencing violence at home (Fredland et al., 2016). Mothers, typically relied on for care and safeguarding their children, may face challenges in fulfilling these roles when they are victims of violence. It has been proposed that women with a history of trauma may demonstrate compromised parenting abilities, leading to difficulties in addressing the emotional needs of their children (Hughes, 1982). Similarly, another studies confirm the detrimental impact of IPV on mother parenting, that mothers exposed to IPV often experience heightened parenting stress and resort to less effective practices such as diversion, spanking, and permissiveness, while concurrently reducing the use of beneficial parenting strategies like positive reinforcement, physical affection, and sensitivity (Holden et al., 1998; Levendosky et al., 2006; Postmus et al., 2012; Rea & Rossman, 2005; Ritchie & Holden, 1998; Casanueva & Martin, 2007; Chan et al., 2012, as cited in Ahlfs-Dunn & Huth-Bocks, 2014).

The adverse effects of IPV on a child's mental health can manifest from the prenatal stage, extending through the child's ability to directly witness the violence inflicted upon the mother during their childhood. A study suggested that stress during the prenatal period is associated with adverse neurodevelopmental outcomes in children (O'Donnell et al., 2009; Sandman et al., 2012). Hence, it is probable that the child can be affected by exposure to IPV even if it occurs not only after the child's birth. In a study that examined 1,183 mother-child pairs, Van der Waerden et al. (2015) found that maternal depression symptoms during pregnancy, Year 3, and Year 5 were associated with emotional and behavioral problems in children at age 5 (Chen et al., 2022). Likewise, within a research endeavor involving 189 Spanish children aged 6 to 17 and

their mothers, a positive correlation was identified between the intensity of IPV experienced by the mother and the existence of emotional/behavioral challenges in the child (López-Soler et al., 2017).

Numerous research endeavors have investigated the effects of IPV, and it is essential to gather these findings for a more comprehensive understanding of how maternal involvement in IPV influences the mental well-being of children. Additionally, the outcomes of this review can be utilized to develop comprehensive interventions addressing mental health issues in both mothers and children. This review aims to integrate existing literature on the impact of maternal IPV on children's mental health.

Methods

Search Strategy

A systematic search of published studies in PubMed, Embase, and PsycINFO from database inception through September 30th, 2023, was performed. Search terms included “mother”, “intimate partner violence”, “children”, “mental health” and synonyms of these terms.

Table 1: Search Queries Used in Each Database

Database	Search Queries
PubMed	(‘Mother*’ OR ‘women’ OR woman OR female*) AND ('partner violence' OR 'intimate partner violence' OR IPV OR 'partner abuse' OR 'spouse abuse') AND ('toddler' OR 'juvenile' OR 'adolescent' OR 'preschool child' OR 'child' OR “school age” OR 'children' OR 'infant') AND ('aggressive behavior*' OR 'psychopathology' OR 'internalizing' OR 'externalizing' OR 'behavioral problem*') AND ‘Mental health’ AND (english[Filter] OR indonesian[Filter])
Embase	('mother*':ab,ti OR 'women'/exp OR 'women':ab,ti OR 'woman'/exp OR woman:ab,ti OR female*:ab,ti) AND ('partner violence'/exp OR 'partner violence':ab,ti OR 'intimate partner violence'/exp OR 'intimate partner violence':ab,ti OR ipv:ab,ti OR 'partner abuse'/exp OR 'partner abuse':ab,ti OR 'spouse abuse'/exp OR 'spouse abuse':ab,ti) AND ('toddler'/exp OR 'toddler' OR 'juvenile'/exp OR 'juvenile' OR 'adolescent'/exp OR 'adolescent' OR 'preschool child'/exp OR 'preschool child' OR 'child'/exp OR 'child' OR 'school age'/exp OR 'school age' OR 'children'/exp OR 'children' OR 'infant'/exp OR 'infant') AND ('aggressive behavior*' OR 'psychopathology'/exp OR 'psychopathology' OR 'internalizing' OR 'externalizing' OR 'behavioral problem*') AND ('mental health'/exp OR 'mental health':ab,ti) AND ([english]/lim OR

	[indonesian]/lim) AND ('article'/it OR 'article in press'/it OR 'review'/it)
PsycINFO	• Mother OR women OR woman OR female • 'partner violence' OR 'intimate partner violence' OR IPV OR 'partner abuse' OR 'spouse abuse' • toddler OR juvenile OR adolescent OR 'preschool child' OR child OR "school age" OR children OR infant • 'aggressive behavior' OR psychopathology OR internalizing OR externalizing OR 'behavioral problem' AND 'Mental health'

Article Selection

To be included in this literature review, each article had to fulfil inclusion criteria: (1) published in both English or Indonesia, (2) mental health problems occur in children or any people under the age of eighteen, and (3) the articles review both mother IPV and the impact of it to the children's mental health. Articles were excluded if the study: (1) only discussed abuse perpetrated by a non-partner or other family member, (2) the victim of the IPV is the husband or not clearly stated on the articles, (3) only discussed IPV without discussing the impact of IPV on the children.

Additionally, this review was restricted to longitudinal studies. Caruana et al., (2015) stated the benefits of longitudinal studies includes: (1) the ability to identify and relate events to particular exposures, and to further define these exposures with regards to presence, timing and chronicity; (2) establishing a sequence of events; (3) following change over time in particular individuals within the cohort; (4) excluding recall bias in participants, by collecting data prospectively and prior to knowledge of a possible subsequent event occurring, and; (5) ability to correct for the

"cohort effect"—that is allowing for analysis of the individual time components of cohort (range of birth dates), period (current time), and age (at point of measurement)—and to account for the impact of each individually (Caruana et al., 2015). First, conducting a systematic review on the topic of the impact of mother IPV on children's mental health allows the writer to identify and relate maternal IPV to subsequent mental health outcomes in children. Second, focusing the review on longitudinal studies enables the writer to identify the sequence of events, which is crucial in understanding the timeline of exposure to maternal IPV and the subsequent development of mental health issues in children- this temporal sequencing provides valuable insights into causality. Third, the nature of longitudinal studies allows the writer to identify the change in children overtime, which is vital for tracking the development of mental health outcomes in the context of maternal IPV exposure. Fourth, the prospective nature of longitudinal studies prevents recall bias on respondents-this is particularly important in studying sensitive topics like maternal IPV, as it helps avoid biases associated with recalling past events. Fifth, another advantage of restricting the review on longitudinal studies is it allows for the analysis of cohort effects. By considering individual time components (cohort, period, age), the writer can account for variations in experiences across different birth cohorts and better understand how these factors influence mental health outcomes.

Overall, the literature search on mother, "intimate partner violence", children, and "mental health" identified 290 studies in PubMed, 746 studies in Embase, and 371 studies in PsycINFO giving a combined total of 1407 studies. Of these, 148 duplicated were removed, 1242 articles remained for title and abstract review. Of these, 118 articles were reviewed in full and 16 met the inclusion criteria. All steps from the title and abstract screening to export data were done on Covidence which is a web-based software platform designed to facilitate the systematic review

process including: (1) importing data from citation management tools like EndNote or databases, (2) screening and selecting studies, (3) resolving conflicts, (4) extracting study data, (5) assessing study quality/risk of bias, (6) exporting data to multiple file types, and (6) creating PRISMA flow diagrams (*Systematic Review Screening Tool Available | Duke University Medical Center Library Online*, n.d.). The flow diagram of the article search process and selection is shown in figure 1.

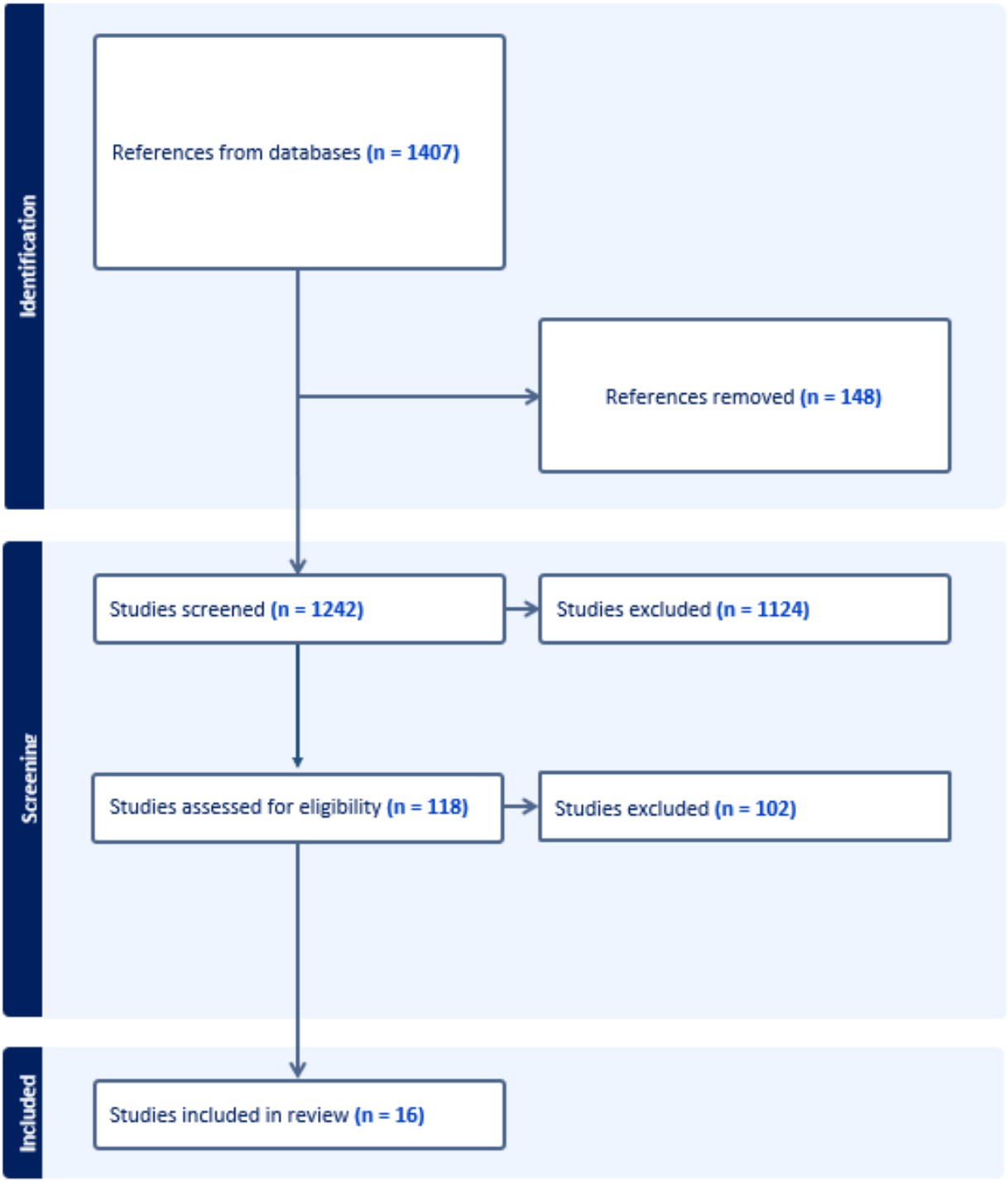

Figure 1: Flow Diagram illustrating article review process

Result

Study Characteristics

Of the 16 articles selected for full-text review, ten studies (62.5%) were conducted in the US, three (18.75%) in Australia, and one each in Ethiopia (6.25%), Brazil (6.25%), and Bangladesh (6.25%). The earliest articles reviewed were published in 2011 (Gewirtz et al., 2011) and (DeJonghe et al., 2011), and the most recent article was published in 2023 (Lee et al., 2023)**.** All articles reviewed were published in English. In terms of sample type, two studies recruited participants from low-income families; nine studies recruited pregnant women and followed them until childbirth; three studies recruited participants from domestic violence shelters; one study recruited participants from public hospitals; one study recruited participants from state birth records, pediatrician offices, childcare centers, and community center. Furthermore, the number of participants varies largely between studies, ranging from 35 participants (Gewirtz et al., 2011) to 3696 participants, which was the study conducted by Westtrupp et al., (2018). An overview of the reviewed studies' approach and main findings is shown in Table 1.

In terms of the scales used to measure mother IPV, there are 22 different questioners used. Two questionnaires were reported by the child, which are the Conflict Tactics Scales (CTS) and the abbreviated version of the Index of Psychological Abuse (Gower et al., 2022); two questionnaires were reported by the mother and father which are the Conflicts and Problem-Solving Scales - Violence Form (CPS-V) and The Child Rearing Practices Report-Modified (Lee et al., 2023). However, the IPV reported by the father was the IPV experienced by the father which is not discussed in this study. The Brief Symptoms Inventory (BSI) was used by four studies (Maddoux et al., 2016; Jouriles et al., 2018; Gewirtz et al., 2011; and Levendosky et al.,

2006); The Edinburgh Postnatal Depression Scale (EPDS) was used by 4 studies (Skinner et al., 2019; Ahmad et al., 2022; Silva et al., 2021; and Edhborg et al., 2020); The Severity of Violence against Women Scale (SVAWS) was used by three different studies (Jouriles et al., 2018; Levendosky et al., 2006; and DeJonghe et al., 2011); four questionnaires were used by two different studies, while the rest were only used by a study.

Regarding scales used to measure child mental health, there were twenty different questionnaires used. Eleven questionnaires were reported by the mother, seven questionnaires were reported by child, one questionnaire was reported by both mother and father, which was The Revised Infant Temperament Questionnaire (Lee et al., 2023), and the other one was mother-, father-, teacher-, and child-self reported questionnaire which was The Strengths and Difficulties Questionnaire (Westrupp et al., 2018). The Child Behavior Check-list (CBCL) was used by five studies (Isaksson et al., 2017; Maddoux et al., 2016; Gower et al., 2022; Jouriles et al., 2018; and Jouriles et al., 2014); The Brief Infant Toddler Social and Emotional Assessment (BITSEA) was used by three studies (Ahlfs-Dunn & Huth-Bocks, 2014; Levendosky et al., 2006; and DeJonghe et al., 2011). There were four questionnaires used by two studies each, and the rest were used by only one study. Measurement of IPV, child behavior, and informant can be seen on Table 1.

Study time frame

Some studies-initiated research during pregnancy and then tracked children across various age groups, while others commenced when the children were already born. Seven studies began their investigations during pregnancy, longitudinally monitoring children's mental health across

different developmental stages. In contrast, nine studies commenced their research directly with children, potentially influencing the outcomes measured.

Intimate partner violence

In the articles reviewed, women's experiences of IPV were assessed across varying time periods: from the year before pregnancy, during pregnancy, and up to 10 years postpartum. Prior to pregnancy, IPV rates range from 26% to 68%. During pregnancy, they range from 16% to 78%. Postpartum IPV rates fluctuate significantly, ranging from 1% to 89% across all assessment periods with the timeframe measured ranging from 6 months postpartum to 10 years postpartum. Among samples recruited via domestic violence shelters, every participant reported experiencing IPV.

Child's exposure to IPV

Out of 16 studies reviewed, only three studies (18.75) reported the number of children exposed to IPV which ranged from 12.8% to 85%. On the other hand, 81.25% reported the impact of IPV on children's mental health through either maternal parenting or maternal mental health problems subsequent to IPV experienced by mothers.

Silva et al. (2021) categorized children’s exposure to IPV into several types, including in utero exposure (28.4%), hearing IPV (41.1%), witnessing IPV (34.6%), and 13.5% of children becoming victims. Postnatally, children’s exposure to IPV onset was most frequent between ages 3 to 6 years (17.9%).

An Australian study observed a slight increase in children's exposure to IPV over time, with rates of 12.8%, 15.3%, and 15.9% in their first, fourth, and tenth years, respectively. More than one in

four children (28.7%) experienced IPV during their first 10 years (Gartland et al., 2021). Gower et al. (2022) revealed 39% of children reported exposure to physical IPV, while 85% experienced psychological IPV. Notably, 98% of children reporting physical IPV also experienced psychological IPV.

Outcomes

The direct effect of IPV on the children's mental health problems

This review found that maternal IPV has a direct effect on children's mental health. Among the studies reviewed, various assessments were conducted to investigate the relationship between IPV and children's mental health problems. Notably, 31% (5 out of 16 studies) explored IPV's association with children's externalizing problems through seven assessments, with 85.7% yielding statistically significant results, all demonstrating a positive direction (Ahmad et al., 2022; DeJonghe et al., 2011; Gower et al., 2022; Lee et al., 2023; and Levendosky et al., 2006). Additionally, 19% (3 out of 16 studies) examined IPV's association to children's internalizing problems, resulting in five assessments, of which 60% were statistically significant, all with a positive direction (DeJonghe et al., 2011; Gower et al., 2022; Lee et al., 2023). Regarding depression, 6.3% (1 out of 16 studies) conducted two assessments, yielding statistically significant results in a positive direction (Westrupp et al., 2018). However, IPV's relationship with infant regulatory difficulty at 3 months of age and infant socioemotional problems at 12 months of age were not statistically significant in the two-assessment conducted (Ahlfs-Dunn & Huth-Bocks, 2014b). Lastly, 19% (3 out of 16 studies) of the reviewed studies investigated the relationship between IPV and children's emotional-behavioral difficulties through three

assessments, all of which yielded statistically significant results, demonstrating a positive direction (Gartland et al., 2021; Maddoux et al., 2016; and Skinner et al., 2019).

The association between maternal mental health problems and children's mental health problems

Among the studies reviewed, associations between maternal mental health problems and children's mental health problems were investigated across various domains. Specifically, 13% of the studies explored the link between maternal mental health problems and children's externalizing problems (Isaksson et al., 2017; and Jouriles et al., 2014), internalizing problems (Isaksson et al., 2017; and Jouriles et al., 2014), and emotional-behavioral difficulties (Maddoux et al., 2016; and Skinner et al., 2019), with all assessments yielding statistically significant results demonstrating a positive direction. Additionally, individual studies, each comprising 6.3% of the total, examined the relationship between maternal mental health problems and children's depression (Silva et al., 2021), infant regulatory difficulty at 3 months of age (Ahlfs-Dunn & Huth-Bocks, 2014b), and infant socioemotional problems at 12 months of age (Ahlfs-Dunn & Huth-Bocks, 2014b), all of which showed statistically significant results with a positive direction.

Mediation by maternal mental health problem, gender, and parenting

Mediation by gender, parenting, and maternal mental health problems was examined across various associations between IPV and child outcomes. Among the studies examined, 31% (5 out of 16 studies) undertook seven assessments to investigate how gender, parenting, and maternal mental health mediated the relationship between IPV and children's mental health problems, or between IPV and the mother's perception of the infant's temperament as fussy-difficult,

unadaptable and unpredictable. 6.3% of the study reviewed explored mediation by gender in the associations between IPV and child externalizing/internalizing problems, yielding non-significant results (Lee et al., 2023). Similarly, 13% of the studies investigated mediation by parenting in the associations between IPV and child externalizing problems, with one study showing a statistically significant inverse direction (Levendosky et al., 2006) and another showing non-significant results (Lee et al., 2023). Notably, mediation by maternal mental health functioning (Maddoux et al., 2016) and depressive symptoms (Skinner et al., 2019) in the association between IPV and children's emotional-behavioral difficulties was explored in 6.3% of the studies, with both showing statistically significant positive directions. Furthermore, mediation by maternal depressive symptoms in the relationship between IPV and mother's perception of the infant's temperament as fussy-difficult, unadaptable, and unpredictable was also statistically significant with a positive direction, as found in 6.3% of the studies (Edhborg et al., 2020).

Moderation by parenting, sex, age, maternal PTSD symptoms, physical IPV

In a quarter of the studies reviewed (four out of sixteen), ten evaluations were conducted to investigate how parenting, sex, age, maternal PTSD symptoms, and physical IPV might moderate the relationship between IPV and children's mental health problems, or between maternal mental health problems and children's mental health problems. Notably, 6.3% of the studies examined moderation by parenting quality in the association between prenatal IPV and child externalizing problems, but the result was not statistically significant (Ahmad et al., 2022). Similarly, investigations into moderation by sex (Ahmad et al., 2022), and gender (Gower et al., 2022) in the relationships between IPV and child externalizing/internalizing problems did not

yield statistically significant results. Jouriles et al. (2014) examined the moderation by age in the association between maternal PTSSs and child externalizing problems, the result was not statistically significant. However, significant moderation effects were found in specific instances: maternal PTSD avoidance symptoms moderated the association between presence of IPV during pregnancy and infant regulatory difficulties at 3 months of age, and maternal PTSD high hyperarousal symptoms moderated the association between presence of IPV during the first year after birth and infant socioemotional problems at 12 months of age, both showing positive directions (Ahlfs-Dunn & Huth-Bocks, 2014b). Additionally, moderation by physical IPV was significant in the relationship between psychological IPV and mothers' reports of child internalizing symptoms (Gower et al., 2022).

Discussion

The findings of this systematic review provide valuable insights into the complex interplay between IPV, maternal mental health, and their combined impact on children's mental well-being. While previous research has established a direct link between IPV and adverse outcomes in children's mental health, this study adds depth to our understanding by uncovering the multifaceted nature of this association. One notable contribution of this study is its identification of four distinct roles that negatively impact children's mental health: the direct impact of IPV, the direct impact of maternal mental health, maternal mental health as a significant mediator, and maternal mental health as a moderator in the relationship between IPV and children's mental health. It's important to emphasize that each of these roles independently poses a threat to children's mental well-being. Considering that each of these roles independently contributes to adverse outcomes for children's mental health, the combination of these factors is indeed more detrimental. The cumulative impact of IPV, maternal mental health problems, and their interplay further heightens the risk for children's mental health difficulties.

The direct impact of IPV on children's mental health is extensively documented, revealing a significant increase in the risk of psychological problems in children exposed to violence within the household. In this review, 15 out of 20 assessments (75%) examining the association between IPV and children’s mental health yielded statistically significant results, all indicating a positive direction. This underscores the correlation between more adverse maternal IPV and more detrimental effects on children’s mental health. This finding is consistent with prior research, which indicates that children who witness their mother's abuse often display heightened levels of both externalizing and internalizing behaviors, as well as psychological distress such as depression, anxiety, and post-traumatic stress disorder (McFarlane et al., 2003; Wolfe et al.,

2003; Harding et al., 2013; Yetter, 2022; Kalil et al., 2003; Binder et al., 2013). Additionally, exposure to maternal IPV correlates with compromised behavioral functioning and symptoms of infant trauma (McFarlane et al., 2003; Bogat et al., 2006).

The direct influence of maternal mental health on children's psychological well-being underscores the critical role of maternal well-being in shaping children's emotional outcomes. Maternal mental health issues, such as depression, anxiety, and PTSD, can create a challenging environment for children, negatively impacting their emotional development. Among the articles reviewed, 56% (9 out of 16) investigated the direct impact of maternal mental health problems on children's mental health, all of which yielded significant results in a positive direction. These findings indicate that an increase in maternal mental health disorders corresponds to an increase in children's mental health problems. This aligns with previous research by Samuelson & Cashman (2008), which demonstrated that children of mothers experiencing PTSs tend to exhibit more emotional negativity and lability. Furthermore, the study by Yetter (2022) also supports this, revealing that maternal depression is linked to higher levels of externalizing behavior in children. Similarly, Samuelson & Cashman (2008) found a significant association between maternal depression and the emotional development of children.

Furthermore, maternal mental health plays a crucial role as a mediator in the link between IPV and children's mental well-being. It partially elucidates how IPV contributes to adverse mental health outcomes in children by manifesting as maternal psychological distress. Maternal mental health issues may exacerbate the impact of IPV, thereby increasing the risk of mental health problems in children. In this review, 18.75% of studies assessed mediation by maternal mental health problems with all yielding positive statistically significant findings. This finding is consistent with previous research. For instance, a study identified a significant indirect effect of

IPV exposure through maternal depression on reported aggressive behavior (Holmes et al., 2017). Similarly, Miranda et al. (2013) found that mothers' global psychological distress and depressive symptoms mediated the associations between mothers' violence history and children's externalizing problems. Moreover, Yetter (2022), Bair-Merritt et al. (2015), and (Mitchell et al. (2011) observed that maternal depression mediated the association between IPV and internalizing and externalizing problems in children.

Moreover, maternal mental health serves as a moderator, influencing the degree to which IPV affects children's mental well-being. Elevated levels of maternal psychological distress can exacerbate the negative impacts of IPV on children, whereas maternal resilience or effective coping strategies may mitigate these detrimental effects. Out of 16 studies, 6.3% studies conducted two assessments of the moderating effect of maternal mental health problems in the association between maternal mental health problems and children's mental health problems, all result are statistically significant with positive direction. This finding is consistent with a previous study by Yetter (2022), which revealed that maternal depression moderates the association between IPV victimization and internalizing behavior problems in children. Regardless of their reports of IPV victimization, mothers' depression was found to increase the estimated levels of internalizing behavior problems in children. Conversely, Easterbrooks et al. (2018) found contradictory results, indicating that maternal depression did not moderate the links between IPV and behavior problems in children.

Strengths and limitations

One notable strength of this review is the exclusive focus on longitudinal studies. By drawing from longitudinal data, the review ensures a robust examination of trends and patterns over time, enhancing the reliability and validity of the findings. Longitudinal studies are particularly valuable in uncovering causal relationships and understanding the long-term effects of maternal IPV on children's mental health.

Despite its strengths, this review also faces several limitations that warrant consideration. Firstly, a significant majority (87.5%) of the countries studied were high-income countries, with the USA, Australia, and Brazil being the primary focus. Notably, the USA represents a substantial portion, accounting for 71.42% of the high-income countries analyzed. Additionally, while the review concentrates on the impact of maternal IPV on children's mental health, there is a notable gap in the coverage of adolescent age groups within the reviewed articles, most concentrated on young children aged 10 and below. Furthermore, the varied utilization of different age groups across the reviewed studies poses a challenge in making direct comparisons.

Recommendations

In light of the complex interplay between IPV, maternal mental health, and their impact on children's mental well-being, interventions addressing children's mental health should be comprehensive. Children can be adversely affected by IPV, maternal mental health issues, or a combination of both, emphasizing the necessity of integrated interventions targeting both aspects. Collaborative efforts involving healthcare professionals, social workers, educators, and community organizations are crucial for mitigating IPV and indirectly reducing predictors of children's mental health problems. Addressing IPV collaboratively can create a safer

environment for children to thrive. Additionally, there is a pressing need for larger longitudinal studies encompassing all age groups of children. Current research gaps, particularly regarding adolescents, highlight the necessity of broader studies to capture age-specific nuances in the relationship between IPV, maternal mental health, and children's mental well-being. Such comprehensive research will not only enhance theoretical understanding but also inform the development of targeted interventions tailored to the unique needs of children at different developmental stages. More research in low- and middle-income countries is also essential to ensure the broader applicability of findings across different socioeconomic contexts.

Conclusion

In summary, this systematic review sheds light on the complex relationship between IPV, maternal mental health, and children's mental well-being. It identifies four key roles influencing children's mental health outcomes: the direct impacts of IPV and maternal mental health, maternal mental health as a mediator, and as a moderator. While providing valuable insights, the review also highlights limitations, such as a focus on high-income countries and a lack of research on adolescents. To address these gaps, integrated interventions targeting both IPV and maternal mental health, supported by collaborative efforts, are needed. Additionally, larger longitudinal studies spanning diverse socioeconomic contexts and age groups are crucial for informing tailored interventions and policies to safeguard children's mental health. By addressing these recommendations, future research and interventions can better support children exposed to IPV and maternal mental health issues, fostering environments where they can thrive emotionally and psychologically.

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Appendix

Table 1. Overview of the Reviewed Studies' Approach and Main Findings.

No	Study ID	Title	Time Frame	Description of Study (Age Range, Gender, and Design)	Country in which the study conducted	Sample Type	Total Children	Total Mother	Measurement of IPV and Informant	Measure of Child Behavior and Informant	Outcomes
1	Dunn & Bocks 2014	Intimate Partner Violence and Infant Socioemotional Development: The Moderating Effects of Maternal Trauma Symptoms	12.5 months	Wave 1: Participants were in their third trimester of pregnancy; Wave 2: (n = 119; 99% retention) participants' infants were 3.2 months old, on average (range = 2.3-9.7 months); Wave 3: (n = 114; 95% retention) the participants' infants were 12.2 months old, on average (range = 11.6-14.6 months); Longitudinal Study	United States	The study comprised 120 mainly low-income women who took part in a five-phase longitudinal investigation on parenting from pregnancy through their child's third birthday	120	120	The Conflict Tactics Scales-2 (CTS-2)-mother reported	The Cry-Feed -Sleep Interview (CFSI) (mother reported)	Mothers who encountered IPV during pregnancy did not report significantly greater infant regulatory challenges at 3 months compared to mothers who did not experience IPV during pregnancy
									The Posttraumatic Stress Disorder Checklist-Civilian Version (PCL-C)-mother reported	The Brief Infant Toddler Social and Emotional Assessment (BITSEA) (mother reported)	Mothers who had encountered IPV during the first year after birth reported significantly elevated levels of infant socioemotional problems on the BITSEA at 12 months, compared to mothers who hadn't experienced IPV during that period. Additionally, even after adjusting for the occurrence of IPV during pregnancy, the presence of IPV during the first year after birth remained significantly associated to higher levels of mother-reported infant socioemotional problems at 12 months
										a 10-min mother - infant, video-taped, free-play interaction (observation)	Observational codes revealed that infants whose mothers had experienced IPV during the first year after birth did not show significantly decreased social engagement with their mothers, nor did they exhibit significantly higher levels of negative affect compared to infants whose mothers had not experienced IPV during that period From Observational Code: Infants whose mothers experienced IPV within the first year after birth were notably less inclined to exhibit positive affect and more prone to display flat or withdrawn affect compared to infants whose mothers did not experience IPV during that period Prenatal maternal PTSD avoidance symptoms moderated the relationship between the occurrence of IPV during pregnancy and infant regulatory difficulties at 3 months of age Maternal PTSD symptoms played a moderating role in the relationship between IPV during the first year after birth and infant socioemotional problems at 12 months. Particularly, the association between IPV during this period and mother-reported infant socioemotional problems at 12 months was influenced by maternal PTSD hyperarousal symptoms. Additionally, there was a direct effect of IPV presence, where its occurrence was associated to increased infant socioemotional problems. Maternal PTSD symptoms, both hyperarousal symptoms at 1 year and reexperiencing symptoms, moderated the relationship between the presence of IPV during the first year after birth and observed infant social engagement. Maternal PTSD hyperarousal symptoms at 1 year moderated the association between the presence of IPV during the first year after birth and observed infant positive affect.
2	Lorraine Skinner, Susana Gavidia-Payne, Stephanie Brown, Rebecca Giallo (2019)	Mechanisms Underlying Exposure to Partner Violence and Children's Emotional-Behavioral Difficulties	10 years	First year postpartum followed at 4 years and 10 years; prospective longitudinal study	Australia	The data were obtained from the Maternal Health Study, which tracked more than 1,500 Australian women recruited during their first pregnancy (up to 24 weeks gestation)	1385	1385	The Composite Abuse Scale (mother reported)	The parent-report version of the Strengths and Difficulties Questionnaire (mother reported)	There was a significant association between IPV at 12 months postpartum and children emotional-behavioral difficulties
									The Edinburgh Postnatal Depression Scale (EPDS)-mother reported Birth Cohort questionnaire (mother reported)		There was no significant association between IPV at 12 months postpartum and children's emotional-behavioral difficulties at 10 years, with maternal depression and engagement in home learning activities at 4 years not mediating the relationship The pathways from IPV and maternal depression at 4 years to children's emotional-behavioral functioning at 10 years were significant. However, there were no significant paths involving maternal involvement in home-learning activities at 4 years, indicating that this pathway did not play a mediating role Fifteen percent of women reported experiencing emotional and/or physical abuse from an intimate partner within the first year after childbirth, and this was associated to increased emotional-behavioral difficulties in their 10-year-old children Exposure to IPV in early life may have direct, strong, and lasting effects on children's emotional-behavioral development

No	Study ID	Title	Time Frame	Description of Study (Age Range, Gender, and Design)	Country in which the study conducted	Sample Type	Total Children	Total Mother	Measurement of IPV and Informant	Measure of Child Behavior and Informant	Outcomes
											IPV experienced at 12 months postpartum was associated to elevated levels of maternal depressive symptoms at 4 years postpartum, which subsequently correlated with increased emotional-behavioral difficulties among children at 10 years old There were no significant relationships with, or mediation through, maternal engagement in home-learning activities, such as reading, indoor or outdoor play, singing, and dancing No significant differences in the model associations by child gender In families facing significant economic disadvantage, the connections between IPV, maternal depressive symptoms, and children's emotional-behavioral difficulties were more pronounced
3	Shaikh I. Ahmad, Emily W. Shih, Kaja Z. LeWinn, Luisa Rivera, J. Carolyn Graff, W. Alex Mason, Catherine J. Karr, Sheela Sathyanarayana, Frances A. Tylavsky and Nicole R. Bush, (2022)	Intergenerational Transmission of Effects of Women's Stressors During Pregnancy: Child Psychopathology and the Protective Role of Parenting	8 years	The study involved gathering perinatal information during the third trimester and at delivery. Afterward, families were followed up prospectively, with data collected at a home visit four weeks postpartum, a phone call at six months, and multiple clinic visits at around ages 1, 2, 3, 4-6, and 8 years old; prospective longitudinal design	United States	Low-income, racially diverse (64% Black, 30% White)	1034	1034	Women provided retrospective reports on their exposure to 14 distinct types of significant pregnancy-related stressful life events (pSLE) during the maternal questionnaire administered at the eighth visit, utilizing a measure adapted from the commonly utilized Centers for Disease Control and Prevention Pregnancy Risk Assessment Monitoring System survey (mother reported) EPDS (mother reported)	The Behavior Rating Inventory of Executive Functioning Preschool version (BRIEF) (mother reported)	Children's EF problems were strongly correlated with externalizing problems Maternal pSLEand pIPV each independently forecasted child executive functioning (EF) problems. Specifically, elevated levels of both pSLE and pIPV were distinctly linked to increased levels of child EF problems Women's postpartum depression and concurrent depression independently predicted both child outcomes There was a notable positive relationship between maternal prenatal stressful life events (pSLE) and children's externalizing problems, particularly evident at average and lower levels of parenting quality. However, at higher levels of observed parenting quality, there was a mitigating effect, with pSLE not significantly linked to child externalizing problems. No significant interaction was observed between prenatal intimate partner violence (pIPV) and parenting quality regarding child externalizing problems There was no evidence for moderation by child sex for either stress exposure
4	Minji Lee , Sungha Kang, Ana Uribe, Elizabeth A. Harvey and Maria M. Galano (2023)	Mediators and moderator of the effects of early exposure to intimate partner violence on children's mental health	3 years	Data were initially collected when children were age three, with follow-up at ages four and six; 85 girls, 101 boys; Longitudinal Study	United States	Participants were enlisted over three years via state birth records, pediatrician clinics, childcare facilities, and community centers	186	186	Conflicts and Problem-Solving Scales - Violence Form (CPS-V) (mother and father reported) The Child Rearing Practices Report-Modified (Mother and Father reported)	The Revised Infant Temperament Questionnaire (mother and father reported)	Both the Paths from maternal intimate partner violence (IPV) to externalizing problems and internalizing problems were statistically significant The pathways from intimate partner violence (IPV) to child outcomes showed no significant distinctions between boys and girls Both maternal and paternal intimate partner violence (IPV) separately predicted higher levels of internalizing and externalizing problems for children three years later Parenting practices did not serve as a mediator for the negative impacts of intimate partner violence (IPV) on child outcomes
5	Johan Isaksson, Negussie Deyessa, Yemane Berhane and Ulf Hogberg (2017)	Early adversity and psychiatric symptoms - a prospective study on Ethiopian mothers and their children	10 years	Pregnant people were followed 10 years after childbirth; prospective longitudinal design	Ethiopia	Women aged 15 to 49 residing within the Butajira Rural Health Program (BRHP) area, located 130 km south of Addis Ababa, were included if they were listed in the BRHP database and had been living at the site for at least the past three months	358	358	The Self-Reporting Questionnaire (SRQ) (mother reported)	The Child Behavior Check-list (CBCL) (mother reported)	The presence of current maternal psychiatric symptoms was associated to both internalizing and externalizing symptoms in the child. Additionally, boys exhibited higher levels of externalizing symptoms

No	Study ID	Title	Time Frame	Description of Study (Age Range, Gender, and Design)	Country in which the study conducted	Sample Type	Total Children	Total Mother	Measurement of IPV and Informant	Measure of Child Behavior and Informant	Outcomes
											Neither maternal psychiatric symptoms nor exposure to intimate partner violence (IPV) during the perinatal period were predictive of emotional and behavioral symptoms in children at the age of 10. However, ongoing maternal symptoms of depression and anxiety during the follow-up period were linked to rated emotional and behavioral symptoms in the child Current maternal psychiatric symptoms were associated with internalizing symptoms and externalizing symptoms in the child
6	Elizabeth M. Westrupp, Stephanie Brown, Hannah Woolhouse, Deirdre Gartland, & Jan M. Nicholson (2017)	Repeated early-life exposure to inter-parental conflict increases risk of preadolescent mental health problems	7 years	3696 children and mothers; Verbal or physical inter-parental conflict was measured at 0–1, 2–3, 4–5, and 6–7 years; Longitudinal study	Australia	Data were sourced from the Baby cohort of the Longitudinal Study of Australian Children, selected in 2004 via a two-stage cluster sampling design from Australia's universal health database	3696	3696	The Argumentative Relationship Scale (mother reported)	The Strengths and Difficulties Questionnaire (mother-, father-, and teacher-report and child self-report at 10-11 years old)	Physical inter-parental conflict was consistently associated with increased child externalizing problems Substantial connections were observed between verbal inter-parental conflict and elevated child externalizing problems Findings regarding child internalizing problems varied among respondents. In unadjusted and social risk-adjusted models, physical inter-parental conflict consistently linked with increased internalizing problems as reported by mothers, fathers, and children. However, when maternal-rated parenting and psychological distress at 8-9 years were included in subsequent models, associations remained for single occurrences of inter-parental conflict but diminished for repeated exposure. No associations were found between physical inter-parental conflict and teacher-reported child internalizing problems There were large consistent associations between verbal inter-parental conflict and child internalizing problems Persistent associations were observed between mother-reported physical and verbal inter-parental conflict spanning early childhood (from ages 0-1 to 6-7 years) and heightened child internalizing and externalizing problems at 10-11 years. Notably, child mental health issues were consistently tied to instances where mothers reported conflict at a single time point Fewer associations based on mother- and teacher-report of externalizing problems when controlling for maternal parenting or psychological distress at 8-9 years
7	Elisabete Pereira Silva, Alan Emond, Ana Bernarda Ludermir (2021)	Depression in childhood: The role of children's exposure to intimate partner violence and maternal mental disorders		Pregnant people from 31st week of gestation followed when their children were at school age; Prospective longitudinal Study	Brazil	630 mother-child pairs were evaluated in a poor urban district in Recife, Northeast Brazil.	630	630	The questions on IPV were taken from a validated questionnaire used in Brazil, previously employed in the WHO's Multicountry Study on Women's Health and Domestic Violence (mother reported) SRQ-20 (mother reported)	CEIPV questionnaire (mother reported) The Short Mood and Feelings Questionnaire (SMFQ-P) (mother reported)	In Model 1, examining data from Time 1 (T1), it was found that the likelihood of a child experiencing depression at school age was twice as high when MMD were present, regardless of exposure to IPV, compared to children who were not exposed In Model 2, focusing on T2, it was found that when children experienced MMD without exposure to IPV, the odds of childhood depression were approximately doubled. However, if children were exposed to both IPV and MMD, the odds of childhood depression were nine times higher compared to unexposed children. In Model 3, which excluded the pregnancy and postpartum stages of the cohort, focusing on exposure during school age, the odds ratio was 3.5 times higher in cases of exposure to MMD without CEIPV. This increased to 4 times when CEIPV was combined with MMD

No	Study ID	Title	Time Frame	Description of Study (Age Range, Gender, and Design)	Country in which the study conducted	Sample Type	Total Children	Total Mother	Measurement of IPV and Informant	Measure of Child Behavior and Informant	Outcomes
									The Edinburgh Postnatal Depression Scale (EPDS) (mother reported)		In Model 4, analyzing the entire cohort period, the odds ratio for childhood depression was 3.5 when both CEIPV and MM were present in combination
8	John A. Maddoux, Fuqin Liu, Lene Symes, Judith McFarlane, Rene Paulson, Brenda K. Binder, Nina Fredland, Angeles Nava, Heidi Gilroy (2015)	Partner Abuse of Mothers Compromises Children's Behavioral Functioning Through Maternal Mental Health Dysfunction: Analysis of 300 Mother-Child Pairs	16 years	age ranged from 1.5 to 16.42 years; 152 boys, 148 girls; Longitudinal Study	United States	Mothers were recruited upon their initial seeking of assistance for abuse, either at shelters for abused women or at the district attorney's office.	300	300	Short screening scale for post-traumatic stress disorder (PTSD) (mother reported)	CBCL (mother reported)	The extent of maternal abuse was significantly associated with the child's behavioral functioning at both the initial assessment and the 4-month follow-up The intensity of the abuse directly affected maternal mental health, particularly leading to symptoms of depression, anxiety, and PTSD. It also influenced the child's behavioral functioning, impacting both internal aspects such as depression and anxiety, and external aspects such as hostility and aggression
									Brief Symptom Inventory-18 (BSI-18) (mother reported)		Maternal mental functioning directly correlated with child behavioral functioning, serving as a mediator between the severity of abuse and the child's behavioral outcomes
9	Maigun Edhborg, Hashima-E-Nasreen,and Zarina Nahar Kabir (2017)	Impact of Intimate Partner Violence on Infant Temperament		data were collected during the third trimester of the pregnancy (baseline), and from the follow-up at 6 to 8 months postpartum; Longitudinal Study	Bangladesh	Women and their children 6 to 8 months postpartum from rural Bangladesh	656	656	IPV was evaluated 6 to 8 months after childbirth using the same assessment tool employed by the WHO in a multinational study, which included Bangladesh in 2006 (mother reported)	Infant Characteristic Questionnaire (ICQ) (mother reported)	Overall IPV, including both physical and emotional forms, was significantly associated with how mothers perceived their infant's temperament as measured by the total score of the ICQ and its specific aspects like being fussy-difficult, unadaptable, and unpredictable. However, it wasn't associated with the dull subscale. Sexual IPV was linked with the perception of infants as unadaptable and unpredictable, but not as fussy-difficult or dull
									EPDS (mother reported)		Maternal depressive symptoms were significantly correlated with how mothers perceived their infant's temperament, particularly in terms of being fussy-difficult, unadaptable, and unpredictable
10	Deirdre Gartland, Laura J Conway, Rebecca Giallo, Fiona K Mensah, Fallon Cook, Kelsey Hegarty, Helen Herrman, Jan Nicholson, Sheena Reilly, Harriet Hiscock, Emma Sciberras, Stephanie J Brown (2021)	Intimate Partner Violence and Child Outcome at Age 10: a pregnancy cohort		Mothers completed mailed questionnaires in pregnancy and when their child was aged 3, 6, 12 months, and 4 and 10 years; Prospective pregnancy cohort	Australia	A prospective cohort of first-time mothers (≤24 weeks gestation) and their first-born child, selected from 615 mother-child pairs in six public hospitals in Melbourne, Australia	615	615	The Composite Abuse Scale (mother reported)	Children were evaluated for IQ using the Wechsler Abbreviated Intelligence Scale, executive functioning with the National Institutes of Health (NIH) Toolbox fluid composite battery, and vocabulary with the NIH Toolbox Picture Vocabulary test. Mothers completed the Children's Communication Checklist Short Form and the Children's Communication Checklist (CCC-2) pragmatic subscales	Recent exposure to IPV was associated with poor mental health Exposure to IPV during early life did not correlate with differences in the odds of experiencing poor mental health at the age of 10

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11	Tricia Gower, Ernest N. Jouriles, David Rosenfield, and Renee McDonald (2022)	Physical and Psychological Intimate Partner Violence: Relations With Child Threat Appraisals and Internalizing and Externalizing Symptoms	Families participated in three assessments spaced 6 months apart	7-10 years old; 51% male; Longitudinal Study	United States	Community sample	531	531	CTS (child reported)	The Children's Perception of Interparental Conflict scale for younger children (CPIC-Y) (child reported)	Physical IPV was positively associated with children's self-reported threat appraisals, depressive symptoms, anxiety symptoms, and disruptive behavior problems. However, it showed no relationship with mothers' reports of child internalizing symptoms or externalizing symptoms
									Abbreviated version of the Index of Psychological Abuse (child reported)	The Children's Depression Inventory (CDI) and the Revised Children's Manifest Anxiety Scale (RCMAS)(child reported)	When analyzed separately in Models 1 and 2, both physical and psychological IPV were associated with children's threat appraisals, depressive symptoms, anxiety symptoms, and disruptive behavior problems over time, while accounting for measured and stable, unmeasured confounding factors. However, neither physical nor psychological IPV showed a relationship with mothers' reports of child symptoms
											In Model 3, which investigated the unique effects of physical and psychological IPV on child problems over time, physical IPV (while controlling for psychological IPV and other variables) was associated with child threat appraisals, depressive symptoms, and disruptive behavior problems as expected. However, physical IPV showed no correlation with children's self-reported anxiety symptoms or with mothers' reports of child internalizing or externalizing symptoms
										The Child Disruptive Behavior Scale (CDBS) (child reported)	Controlling for physical IPV and other variables, psychological IPV was associated with child threat appraisals, anxiety symptoms, and disruptive behavior problems as anticipated. However, psychological IPV did not show a correlation with child depressive symptoms or with mothers' reports of child internalizing or externalizing symptoms
										The CBCL (mother reported)	Physical IPV did not have a moderating effect on the association between psychological IPV and children's self-reports of threat appraisals, depressive symptoms, anxiety symptoms, or mothers' reports of child externalizing symptoms. However, physical IPV did moderate the within-person relationship between psychological IPV and mothers' reports of child internalizing symptoms
										Conflict Tactics Scale-Parent-to-Child (CTS-PC; Straus et al., 1998). (mother reported)	Physical IPV moderated the within-person association between psychological IPV and children's reports of disruptive behavior problems
											Psychological IPV was associated to children's self-reported threat appraisals, anxiety symptoms, and disruptive behavior problems, but not to depressive symptoms or mothers' reports of child internalizing or externalizing symptoms
											Investigations examining whether child gender influenced the relationships between physical and psychological intimate partner violence (IPV) and child adjustment problems found no moderating effects
12	Ernest N. Jouriles, Nicole L. Vu, David Rosenfield, Judith McFarlane, John Maddoux, Lene Symes, Nina Fredland, and Rene Paulson (2018)	Mothers' Posttraumatic Stress and Child Adjustment Problems in Families Seeking Services for Intimate Partner Violence		between 18 months and 16 years; Longtudinal study	United States	Families seeking services for intimate partner violence (IPV) were recruited from both the district attorney's office (n = 150) and five domestic violence shelters (n = 150)	300	300	The Severity of Violence against Women Scale (SVAWS) (mother reported)	The Child Behavior Checklist (CBCL) (mother reported)	Child age did not moderate the association between mothers' mean levels of PTSSs and child externalizing or internalizing problems
									The 7-item screening scale for Diagnostic and Statistical Manual of Mental Disorders (mother reported)		Child age did moderate the association between mothers' deviation from their average level of PTSSs and subsequent child externalizing problems, and internalizing problems
									Brief Symptom Inventory (BSI) (mother reported)		For younger children, there was no association between mothers' PTSS deviation scores and child externalizing problem and internalizing problem

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											For older children, if mothers exhibited posttraumatic stress symptoms (PTSSs) higher than their average levels, the children tended to have elevated levels of both externalizing and internalizing problems at the next assessment. Conversely, for older children, when mothers had PTSSs lower than their average levels, the children tended to have reduced levels of both externalizing and internalizing problems at the subsequent assessment Time served as a moderator. Initially, at the 1-year assessment, mothers' posttraumatic stress symptoms (PTSSs) were positively associated with later child externalizing problems. However, this relationship diminished over time, becoming non-significant at the 2-year, 3-year, and 4-year assessments For child internalizing problems, mothers' PTSSs were linked to later child internalizing problems at both the 1-year and 2-year assessments. However, at subsequent assessments, there was no association between mothers' PTSSs and subsequent child internalizing problems
13	Abigail H. Gewirtz, David S. DeGarmo, Amanuel Medhanie (2011)	Effects of Mother Parenting Practices on Child Internalizing Trajectories Following Partner Violence		Child age between 6-12 years old. Child mean age was 8 years, 11 months; boys and girls were equally represented (17 boys, 18 girls); Longitudinal Study	United States	Participants consisted of 35 mother-child pairs recruited from three domestic violence shelters (46%) and a county domestic violence court (54%)	35	35	The Brief Symptoms Inventory (BSI), The Impact of Events Scale-Revised (IES-R)-Mother reported	The Child Depression Inventory-Short Form (CDI-S) (child reported)	Following the occurrence of IPV, the children experienced increased adjustment problems initially. Although there were notable individual differences in their initial levels, they displayed highly similar adjustment patterns throughout the 14-week assessment period
									Family Interaction Tasks (FITs) - Observation	Trauma-related distress symptoms in children were assessed using the Levonn (Richters, Martinez, & Valla, 1990), a 40-item cartoon-based interview (child reported)	When considering the initial levels of internalizing symptoms, younger children generally exhibited greater vulnerability to depressive symptoms, trauma-related distress, and overall internalizing issues. Parenting at Time 1 showed no connection with concurrent outcomes, while maternal distress was linked to elevated levels of child depressive symptoms on the CDI at Time 1
										Children's Fear Survey (CFS) (child reported)	Looking at growth outcomes, changes in outcomes were not linked to age or gender, except for the finding that girls experienced a greater reduction in CDI symptoms compared to boys. Although younger children faced higher risks at the baseline, their adjustment over time was not worse than that of older children Initial levels of effective parenting practices were significantly associated with reductions in trauma-related distress, child-reported fears, and declines in the overall internalizing construct score Effective parenting by mothers shortly after the IPV incident was identified as the primary protective factor against child internalizing issues Contrary to anticipated outcomes, elevated levels of maternal distress were linked with larger decreases in child depression as measured by the CDI Parenting behaviors at baseline, which remained consistent over time, were more indicative of changes in child internalizing symptoms compared to maternal distress There was no correlation between parenting and maternal distress, indicating the absence of indirect impacts of maternal distress on child outcomes through parenting.

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14	Alytia A. Levendosky, Kerry L. Leahy, G. Anne Bogat, William S. Davidson, and Alexander von Eye (2006)	Domestic Violence, Maternal Parenting, Maternal Mental Health, and Infant Externalizing Behavior		Pregnant women in their third trimester of pregnancy; 102 boys and 101 girls; prospective longitudinal study	United States	Participants were pregnant women in the Mother-Infant Study, a longitudinal investigation studying the effects of domestic violence (DV) and other risk factors on women and children.	203	203	The Severity of Violence Against Women Scales (mother reported)	The Infant Toddler Social and Emotional Assessment (ITSEA) (mother reported)	Parenting mediated the association between DV2 (not DV1) and infant externalizing behaviors, and mental health mediated the association between both DV1 and DV2 and infant externalizing behaviors. DV1 predicted DV2 and social support predicted mental health
									mother-infant interaction, a 12-min, laboratory, free-play session (observation).		DV1 had a direct effect on infant externalizing behaviors
									The Norbeck Social Support Scale (mother reported)		Past and current DV functioned similarly with respect to current maternal mental health-more DV was related to worse mental health. In contrast, past DV was not associated to parenting, whereas current DV was negatively associated to parenting
									The Posttraumatic Stress Scale for Family Violence (mother reported)		
									The Brief Symptom Inventory (mother reported)		
15	Erika S. DeJonghe, Alexander von Eye, G. Anne Bogat & Alytia A. Levendosky (2011)	Does Witnessing Intimate Partner Violence Contribute to Toddlers' Internalizing and Externalizing Behaviors?		Data were taken from interviews conducted at the time of the children's first, second, and third birthdays; 94 boys and 93 girls; longitudinal study	United States	187 mother-child pairs were selected from 206 pregnant women experiencing intimate partner violence (IPV) in urban and rural mid-Michigan	187	187	The Severity of Violence Against Women Scales (SVAWS) (mother reported)	Toddler Temperament Scale (TTS) (mother reported)	By the age of 2, both temperament and exposure to IPV were determinants of which children displayed levels of externalizing behavior surpassing the clinical cutoff
										Infant-Toddler Social and Emotional Assessment (ITSEA) (mother reported)	Children who observed IPV in their second year of life were 2.72 times more likely to exceed the clinical threshold for externalizing behavior compared to children whose mothers did not experience IPV
											For each unit increase in negative mood, the likelihood of exceeding the clinical cutoff for externalizing behavior was 3.00 times higher
											Temperament was predictive of which children displayed levels of internalizing behavior above clinical cutoff
											For every point increase in negative mood, the odds of exceeding the clinical cutoff for internalizing behavior was 4.08 times higher
											Witnessed IPV at age 3 predicted externalizing behavior
											Children who witnessed their mother's IPV victimization had 3.48 times higher odds of surpassing the clinical threshold for externalizing behavior compared to children whose mothers were not victims of IPV
											Girls and boys who witness IPV will have clinically elevated externalizing behaviors at both ages 2 and 3, while both non-witnessed IPV and no IPV co-occur with externalizing symptoms at chance rates
16	Ernest N. Jouriles, Nicole L. Vu, Renee McDonald, and David Rosenfield (2014)	Children's Appraisals of Conflict, Beliefs About Aggression, and Externalizing Problems in Families Characterized by Severe Intimate Partner Violence		7-10 years old; (62 boys, 44 girls); Longitudinal Study	United States	Families experiencing recent severe intimate partner violence (IPV) were recruited while residing at a domestic violence shelter	106	106	The Revised Conflict Tactics Scales (CTS2) (mother reported)	The Young Children's Perception of Interparental Conflict Scales (CPIC-Y) (child reported)	Among the within-assessment correlations, threat correlated positively with children's self-reported externalizing problems at the 12-month assessment but not at baseline or 6 months. It did not show any association with mothers' reports of externalizing problems at any assessment
										Normative Beliefs About Aggression Scale (Child reported)	Self-blame correlated positively with mothers' concurrent reports of externalizing problems at baseline and with children's reports of externalizing problems at 6 months, but it did not correlate with either mothers' or children's reports of externalizing problems at any other assessment

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										The Child Behavior Checklist (CBCL) (mother reported)	Beliefs regarding the justification of aggression were positively associated to children's self-reported externalizing problems at the beginning and 6 months later, but they did not show any association with mothers' reports of externalizing problems at any assessment point
										The 9-item Children's Disruptive Behavior Scale (CDBS) (Child reported)	Beliefs regarding the acceptability of aggression were associated to children's self-reported externalizing problems at baseline and 6 months, yet they did not correlate with mothers' reports of externalizing problems at any assessment point
											Baseline threat correlated positively with children's reports of externalizing problems at 12 months, while baseline beliefs about the justifiability of aggression were positively associated with children's reports of externalizing problems at 6 months. However, there were no observed prospective relations of self-blame with either measure of children's externalizing problems