



Linkage of Mother's Childhood Adversity Experience and the Intergenerational Transmission of Parenting Violations: A Systematic Literature Review

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Highlights

- A significant association between a mother's adverse childhood experiences (ACEs) and detrimental outcomes in both her children's mental health, behavior, and academic performance, leading to a cycle of adversity.
- The review incorporates various studies that explore how maternal ACEs contribute to the perpetuation of violation patterns across generations which comprehend the impact of maternal ACEs on parenting behavior and their effects on child outcomes.
- The findings of this systematic literature review underscore the confounding factors, classification, and children's outcomes in varied factors that support implementation of interventions that can break the cycle of trauma and promote healthy parenting practices.

Abstract

Background: Adverse childhood experiences (ACEs) are a crucial topic in family psychology because they have been linked to various negative outcomes later in life, such as mental health problems, substance abuse, and relationship issues. However, comprehensive research to assess how mother's childhood adversity experience may influence the intergenerational trauma or transmission is urgently needed. The study focuses on how a mother's past adversity can impact her parenting behavior and contribute to the perpetuation of violations patterns across generations. Aims: This systematic literature review aims to critically assess the linkage of a mother's childhood adversity experience with the intergenerational transmission of parenting violations. Method: The authors searched for relevant publications using the primary databases JSTOR, Scopus, and ProQuest, and applied the SPIDER framework to establish the eligibility criteria. The studies that were incorporated into the analysis examined how mothers' ACEs are associated with the transfer of trauma to their parenting across generations, without imposing any age restrictions on the study participants. To assess the quality of the chosen literature, the Joanna Briggs Institute (JBI) Critical Appraisal checklist was used. A meta-synthesis was then carried out to collect data that could be compared or merged. Result: Thirteen (13) studies met the eligibility criteria. The results found association between maternal ACEs and their parenting violation, classified of ACEs experience, as well as describe the influence into the children development (e.g. academic performance) Conclusion: The findings of this systematic literature review highlight the significant impact of a mother's adverse childhood experiences (ACEs) on the intergenerational transmission of parenting violations and their effects on child outcomes.

Keyword: Mother's ACEs; Adverse Childhood Experience; Intergenerational Transmission; Intergenerational Trauma; Parenting Violation

INTRODUCTION

The parenting practices of previous generations lay the groundwork for the parenting skills exhibited in subsequent generations. Empirical evidence indicates that parents with a background of emotional or physical abuse or neglect are likely to repeat those behaviors when raising their children (Madigan et al., 2019; Searle, 2010). Drawing on attachment theory, newborns have innate instincts related to essential needs such as seeking comfort (Bowlby, 1973). These fundamental requirements are shared among mammalian species and are the foundation for developing emotional bonds between infants and their caregivers (Ainsworth, 2014/1978; Bowlby, 1973). In addition, requesting comfort and closeness from the caregiver aids in forming a secure bond, promoting the infant's sense of security and emotional well-being (Ali et al., 2021). In other words, infants and their caretakers build and maintain attachment through eating, eliminating, and seeking comfort during caregiving.

Attachment theory is the starting line of the psychological underpinnings of caregiving, emphasizing the role of early social bonds and the replication of care received during one's upbringing (Sroufe et al., 2010). Frequent and dependable parental caregiving is positively associated with secure parent-child relationships (Ali et al., 2021; Cooke et al., 2019). Such nurturing bonds foster the development of emotion regulation skills, cultivate a positive sense of self-worth, and facilitate establishing and sustaining salubrious interpersonal connections with peers (Sroufe et al., 2010). Researchers have emphasized the foundational role of attachment relationships in psychological development, asserting that these emotional bonds significantly influence an individual's sense of self and their interactions with others. The studies conducted by Murphy et al. (2020) and Villanueva (2017) provide valuable insights into the significance of attachment relationships in personality formation and interpersonal relationship building. Furthermore, the quality of an attachment relationship is assessed by how sensitive the caregiver is to the child's needs (Cooke et al., 2019).

Caregiver sensitivity, as reported by Verhage et al. (2016), is something that is built along the attachment in the early years. If the caregiver can demonstrate consistent, loving treatment of the child's needs, it will form a secure attachment relationship (Cooke et al., 2019). However, Zeegers et al. (2017) study indicates that the capacity of parents to attune to their infants' cognitive and emotional states emerged as a stronger predictor of optimal parent-child relationships compared to parental sensitivity during interactions with their infants. Regardless of the provision of caregiving that responds to the baby's cues, if parents are emotionally unavailable to their children, it hinders the establishment of a secure attachment bond between them. In the same vein, the concept of social learning elucidates the behavioral dimension of caregiving, highlighting the importance of observational learning and cultural influences on caregiving practices (Zaidman-Mograbí et al., 2020).

Bowlby and WHO (1951) advocated for a nurturing and enduring relationship between an infant or young child and their mother or a permanent mother figure, highlighting the importance of mutual satisfaction and enjoyment. Reflecting the prevailing views of the time, Bowlby emphasized the role of female parents. While acknowledging the supportive role of fathers in infancy, he suggested that they generally played a secondary role to mothers, primarily providing emotional support to their wives maternal caregiving (Bowlby & WHO, 1951). This view is in accordance with current parenting norms, where mothers were given greater caregiving expectations than fathers (de La Rochebrochard & Rozée, 2022; Dagan et al., 2022). Therefore, in this study, authors generally emphasize caregiving activities and attachment between mother-children.

The initial dependency of a child on mothers or figures of caregivers for protection facilitates the acquisition of experiences and skills necessary for effectively navigating challenges, fostering the development of self-confidence, and nurturing positive interpersonal connections (Crouch, 2015). On the other hand, physical, emotional, and cognitive abuse and neglect in childhood often have long-lasting effects on a person's nervous system, which may trigger them to commit violence against others later in life or to experience violence as an adult victim (Hass-Cohen, 2008).

Limited research has delved into the role of discipline within the context of attachment theory, mainly due to the conventional practice of examining parental roles as attachment figures and disciplinarians as distinct constructs (Benoit, 2004; Cassidy et al., 2013; Hong & Park, 2012). However, a more integrated perspective has been proposed by Cassidy et al. (2013) and Zajac et al. (2020), suggesting that these aspects of parenting are interconnected. For instance, parents with insecure attachments may resort to harsh disciplinary responses instead of displaying warmth and sensitivity when confronted with their child's distress, thus exacerbating the child's distress (Cassidy et al., 2013).

Furthermore, the child's attachment style and responses to parental interactions can significantly influence the caregivers' disciplinary strategies (Ali et al., 2021; Hong & Park, 2012). Inadequate emotional support from caregivers may result in intergenerational transmission of adversity, whereby children become less receptive to appropriate disciplinary approaches. As attachment theory emphasizes the significance of parenting quality in terms of sensitivity and responsiveness to the child, it is reasonable to expect that parents with insecure attachments may encounter challenges in consistently meeting their child's emotional needs (Kallitsoglou & Revana, 2021).

During the developmental years, individuals can be impacted by exposure to domestic violence, mental illness, alcohol, and other distressing life events. These experiences, collectively known as Adverse Childhood Experiences (ACEs), have been extensively investigated and categorized by Felitti et al. (1998). They were pioneers in identifying various types of trauma, such as physical, emotional, and sexual abuse endured during childhood. This suggests that traumatic events and adversity in early life may affect the establishment of attachment. Childhood adversities encompass instances of abuse, neglect, and other traumatic encounters, which Sciaraffa et al. (2018) have highlighted as influential factors on overall health and well-being. Although internal working models and attachment patterns have been established as influential predictors of adult interpersonal functioning (Ainsworth, 2014/1978; Bowlby, 1973; McCarthy & Maughan, 2010), it is essential to acknowledge the enduring impact of adverse experiences on a child's mental and physical well-being. Consequently, interventions are urgently needed to prevent and address the transmission of ACEs.

Karakaş et al. (2021) emphasized that a mother's parenting experience impacts and projects onto an individual's parenting ability. An investigation into heterotypic transmission explores whether individuals who have experienced a particular form of maltreatment are more prone to perpetuating other forms of maltreatment. For instance, if a mother experienced physical abuse during her own childhood, there is a higher likelihood that her own child may suffer from neglect. In these instances, both the child and the mother become victims of maltreatment, albeit in distinct manifestations (Berzenski et al., 2014; Chamberlain et al., 2019). Additionally, Linde-Krieger and Yates (2018) showed that mothers with a history of sexual violence had distorted perspectives on parenting, such as sexual expression, intimacy, and extreme care for the baby's body which can trigger feelings of helplessness in mothers. To gain insights into the mechanisms

and implications of these transmission patterns, it is crucial to examine both types of transmission, thereby, we can obtain valuable information regarding the nature and process of both transmissions (Berzenski et al., 2014; Chamberlain et al., 2019).

Aim of this review

Despite the extensive research on the impact of ACEs, there is a lack of comprehensive research to assess how a mother's childhood adversity experience may influence the intergenerational transmission of trauma or violations. The previous research on ACEs and attachment mostly focused on the types of ACEs linked with different types of attachment (Berzenski et al., 2014; Cooke et al., 2019). Insufficient attention has been given to the enduring impact of mothers' early childhood experiences and adversities, which can influence their parenting behaviors and subsequently transmit these effects to their children. This study examines the link between a mother's past adversity and parenting behavior, which can perpetuate violation in parenting patterns across generations or transmission of intergenerational ACEs.

This systematic literature review aims to critically assess the linkage of a mother's childhood adversity experience with the intergenerational transmission of parenting violations. The inclusion of parenting violations in this study is linear with Rodriguez's study in 2010, where he classified dysfunctional parenting styles, overreactive-authoritarian parenting styles, and permissive parenting that are potentially associated with physical maltreatment and child abuse and neglect.

MATERIAL AND METHOD

Search Strategy and Eligibility Criteria

First, article titles were screened, duplicates were removed, and relevant studies were selected. In order to do this, inclusion and exclusion criteria were developed for article selection. For abstract screening, several inclusion criteria were established, such as (1) published empirical articles with available abstracts; (2) articles published in English; (3) articles examining the relationship between maternal ACEs and intergenerational trauma. In addition to inclusion criteria, exclusion criteria were also developed, namely (1) non-full-text journals (e.g., book chapters, conference papers, or posters); (2) non-social and psychology journals (e.g., health, economic, history, arts, or law journals).

Three reviewers were involved in data extraction (Sakti, Maheswara, Kurnianto). Disagreements and differences were discussed until a consensus was reached. The majority vote from the three reviewers was used to make decisions. If there is any disagreement, the fourth reviewer (Wijayanti) solves the inquiries. This systematic search was conducted in JStor, Scopus, and ProQuest databases. The search terms used were "intergeneration* transmission parent* violation*" OR intergeneration* trauma AND "mother* adverse child* experience*" OR mom* ACEs. The search was applied to the last 10 years (March 31, 2013 – March 31, 2023) and yielded a total of 414 screened articles, with 98 articles from Jstor, 167 articles from Scopus, and 149 articles from ProQuest.

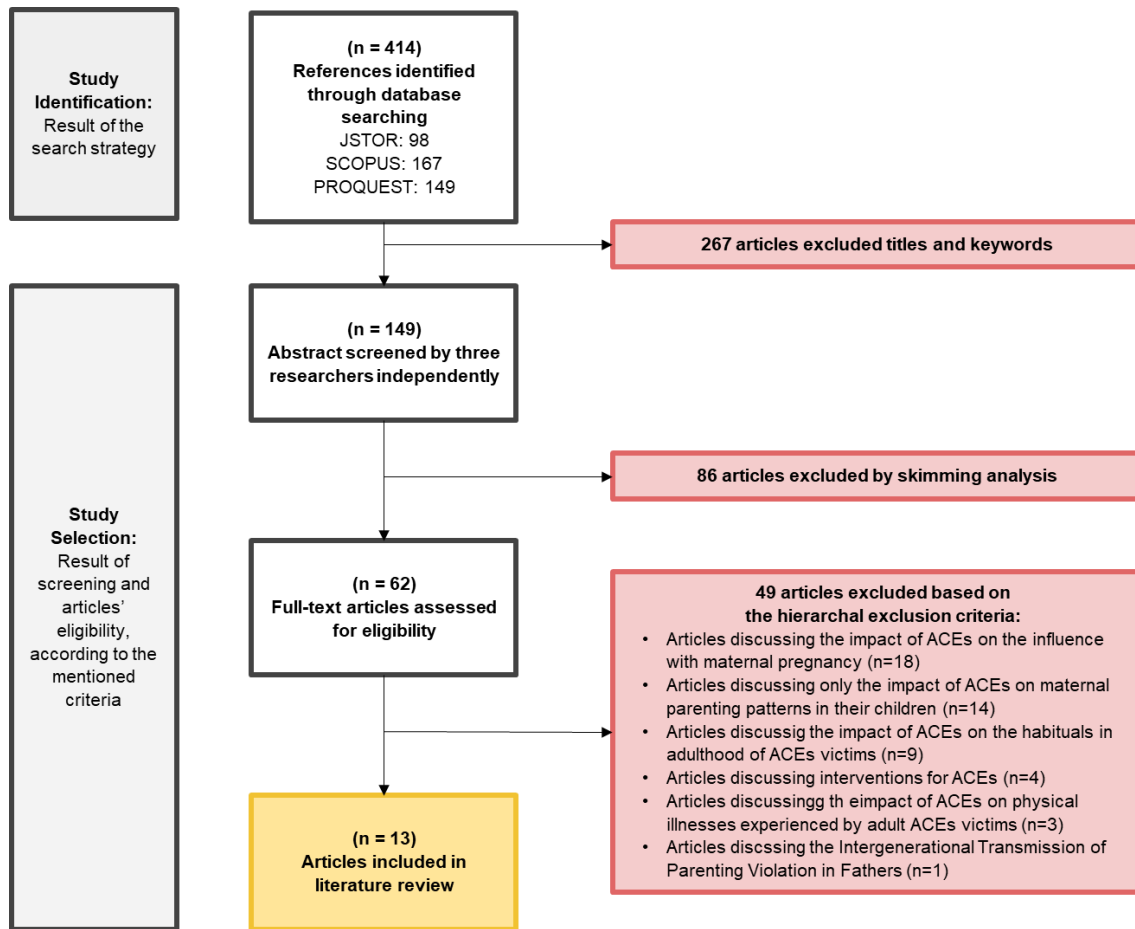
Table 1.
Justification utilized based upon SPIDER mnemonic

| SPIDER | Justification |
|------------------------|---|
| Sample | Mother’s adverse childhood experience |
| Phenomenon of Interest | Intergenerational transmission of parenting violations; it focuses on understanding how a mother's own childhood adversity experiences influence her parenting behaviors and the potential impact on her children's well-being and development. |
| Design | Primary research finds on the three databases (JSTOR, Scopus, ProQuest) with a publication date from March 31, 2013. |
| Evaluation | Identifying common themes, patterns, and inconsistencies across studies, as well as assessing the strength of the evidence and the overall quality of the studies reviewed. |
| Research | Longitudinal Study, Correlation, Cross-Sectional, Retrospective Cohort Study, Qualitative |

Study Selection Procedure

This review had 414 journal articles from JSTOR (98) reviewed by the first author (Sakti), SCOPUS (167) reviewed by the second author (Maheswara), and PROQUEST (149) reviewed by the third author (Kurnianto). In the next procedure, a total of 266 journal articles were excluded based on irrelevant titles and keywords. A total of 149 journal articles were excluded after screening was conducted independently by all three authors, leaving a total of 62 journal articles. Each author screened 13 journal articles in total.

A detailed screening checklist based on the criteria summarized in the result was developed and utilized by two reviewers, Sakti, Maheswara, and Kurnianto. All search results were independently reviewed by both researchers. Titles and abstracts were initially assessed, followed by a full-text review of potentially eligible articles. Any studies that did not meet the criteria were identified, and the reasons for exclusion were noted. In case of any discrepancies, Sakti, Maheswara, and Kurnianto discussed and reached a consensus with the supervising of Wijayanti.



Data Extraction Procedures

The objective of the systematic literature review was to investigate the association between a mother's adverse childhood experiences and the intergenerational transfer of parenting violations. The study's primary aim was to discern key attributes of the included research, such as the country of origin and theoretical framework, as well as fundamental characteristics of the participants, including ethnicity and age range. Additionally, the review sought to explore assessments of moral emotions, specifically sympathy and guilt, relevant to the topic under investigation. The gathered articles were classified collaboratively, with any discrepancies meticulously addressed through discussion until a consensus was reached. These rigorous procedures were implemented to ensure a comprehensive and meticulous analysis of the extant literature on this subject matter in an academically rigorous manner.

RESULT

Study Characteristics

This systematic review synthesized 13 studies that have been selected based on the inclusion criteria. There are five-year time limitations of studies and only included studies that have been published between 2013 and 2023. Most studies have been conducted in the United States. However, there are also studies that have been conducted in Europe (Germany and Sweden), Asia (China and Japan), and the Middle East (Israel). Quantitative studies were the majority method implemented and additional one qualitative study.

Settings

Context of studies based on the location of studies has found that the studies included in this research were mostly located in the United States. Five studies have been conducted in the United States, two studies in Canada, two studies in Israel, and each one study in Germany, Sweden, Japan, and China. Most studies were published in 2020 and above (n=9), but three studies were published in 2018 and one in 2019.

Participants

Most of the included studies consisted of mother participants that had children. The age of the children varies between articles. Some articles study mothers from pregnancy until the child is three years old. There are mothers with preschool-aged children, fifth grade, eighth grade, eleventh grade, and with the highest age of 17 years old. Almost all of the included studies study mothers that are 17 years old and above. However, one article studies young parents above 16 years old and under 21. Participants were from diverse ethnicity. The majority of ethnicity was white, including Caucasian and European American, having been found in 6 studies of thirteen included studies. The second most ethnicity was black or African American, and there were also Hispanic, Latino, Asian, and others. Six studies do not explicitly state the participants' ethnicity. In terms of the history of child maltreatment or ACEs, many forms can be categorized into three types. Abuse, neglect, and household dysfunction.

Type of studies

Twelve out of thirteen were quantitative studies, including correlational, longitudinal, and cohort studies. There is only one qualitative study. Nine studies used a cross-sectional (with eight studies specified used on correlational), which we assess on the Joanna Briggs Institute (JBI) Critical Appraisal checklist (61.53%). In addition, three studies used cohort study (one longitudinal) (23,07%), and a special one used qualitative research deeply in the subject (7,69%).

Measures

There were many measurements incorporated in thirteen studies to measure the variables. The most used one is The Childhood Trauma Questionnaire. However, there were 38 diverse measurements among the studies such as Adult Attachment Projective Picture Systems, Attachment Style Questionnaire, Adverse Childhood Experiences-International Questionnaire, Adverse Childhood Experiences Questionnaire, The Adverse Childhood Experience module from the Behavioral Risk Factor Surveillance System to measure the ACEs variable. In addition, there is also standard measurement for mental health checklists such as The Brief Symptom Inventory, The Brief Symptom Index, Pediatric Quality of Life Inventory, Parent Behavior Inventory that are regularly used to assess on clinical bases.

Critical Appraisal

In the following section, we will provide a detailed Data Abstraction Table (DAT) for each selected journal article. This table will serve to present a comprehensive summary of the findings and key details regarding the identity of each article.

Table 2*Data Abstraction Table*

| Author (Year) | Sample Size | ACEs Form | Methods | Findings |
|-----------------------------|--------------------------------|--|---|---|
| Buccheim, A., et al. (2022) | Mother-Child (Dyads) N= 158 | Emotional Abuse Physical Abuse Sexual Abuse Emotional Neglect Physical Neglect | <p>Research Design Longitudinal Study</p> <p>Measurement</p> <ul style="list-style-type: none"> • Childhood Trauma Questionnaire (CTQ, Bader et al., 2009) • Adult Attachment Projective Picture Systems (AAP, George & West, 2012) • Atypical Maternal Behavior Instrument for Assessment and Classification (AMBIANCE; Bronfman et al., 1992) • Perceived Stress Scale (PSS-14, Cohen, 1988) • The Brief Symptom Inventory (BSI, Wideman et al., 2013) • Postpartum Social Support Questionnaire (PSSQ, Hopkins & Campbell, 2008) | This research reveals a strong association between childhood maltreatment (CM) experiences and unresolved attachment in mothers. Maternal attachment representation significantly relates to child attachment. CM+ mothers show a robust association between organized attachment in both mothers and children. Maternal disruptive behavior correlates with children's disorganized behavior. Mothers reporting CM experience lower social support. Perceived social support plays a role in attenuating maternal problems. No significant effect of social support on maternal caregiving behavior is found. The rs2254298 variant influences child stress responsivity. Children were carrying the risk of allele of the rs2740210 polymorphism shows more disorganized behavior during the Strange Situation Procedure (SSP). |



- DNA quantification kit and a Qubit fluorometer (ThermoFisher Scientific, United States)

Analysis

- Pearson Correlation/Spearman's rank.
- Chi-square test
- The PROCESS Macro model 4
- Macro model 6
- Univariate analysis
- X² test
- Comparative Fit Index (CFI)
- Root mean square error of approximation (RMSEA)

Rodriguez, V. J., et al. (2021) 110 mothers (range = 20 to 43 years) with preschool-aged children (range = 3 to 5 years).

(46,3% African American; 50,9% had a household income under \$30,000)

Childhood Maltreatment

Research Design
Correlation

Measurement

- Child Trauma Questionnaire (Bernstein et al., 1997)
- Difficulties with Emotion Regulation Scale (DERS; Gratz & Roemer, 2004)
- Parent-Child Conflict Tactics Scale (CTS-PC; Straus et al., 1998)

Analysis

- Univariate statistics
- bivariate analyses

The study found that childhood maltreatment was associated with increased emotion dysregulation in adulthood, which in turn led to higher levels of child-directed psychological aggression. However, there was no significant relationship between childhood maltreatment and physical aggression toward children. Therefore, the study partially supported the hypothesis that childhood maltreatment predicts greater aggression toward children through the pathway of emotion dysregulation.

| | | | | |
|---------------------------|---|--|---|--|
| | | | <ul style="list-style-type: none"> • A path analysis | |
| Tedgård, E. et al. (2018) | 19 parents who had participated in a mental health intervention program | Substance abuse | <p>Research Design Qualitative</p> <p>Measurement</p> <ul style="list-style-type: none"> • In-depth interview • Attachment Style Questionnaire <p>Analysis</p> <ul style="list-style-type: none"> • Qualitative Content Analysis (CA) | Individuals who have experienced substance abuse in their parents may be affected in their own parenting. They are likely to be influenced by high levels of parental stress and may develop an insecure attachment style, which can negatively impact their children's ability to form secure psychosocial development. |
| Chen, D. et al. (2023) | 4243 mother-child dyads | The study examined various adverse experiences including emotional abuse, physical abuse, emotional neglect, physical neglect, intimate partner violence, substance abuse within the household, presence of an incarcerated household member, mental illness in the household, parental death, parental separation or divorce, bullying, and exposure to community violence. | <p>Research Design Cross-sectional study</p> <p>Measurement</p> <ul style="list-style-type: none"> • Adverse Childhood Experiences-International Questionnaire (ACEIQ) • Pediatric Quality of Life Inventory version 4.0 (PedsQL 4.0) <p>Analysis</p> <ul style="list-style-type: none"> • Descriptive statistics • one-way ANOVA test • polynomial comparisons • Mantel-Haenszel statistic • Linear regression models • Stratified analysis • sensitivity analysis | In this cross-sectional investigation, the findings revealed that preschool children with mothers who experienced Adverse Childhood Experiences (ACEs) exhibited lower Health-Related Quality of Life (HRQOL) scores in comparison to children of mothers who had not encountered any childhood adversity. Moreover, there was a notable dose-response relationship between the number of ACEs mothers experienced and the diminished HRQOL in their children. Interestingly, stratified analysis indicated that children's sex did not play a moderating role in the associations between maternal ACEs and the HRQOL of the offspring. |



| | | | | |
|---|---|---|--|--|
| | | | <ul style="list-style-type: none"> power analyses | |
| Moog, N. K., et al. (2023) | 4337 mother-child dyads | physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse | <p>Research Design Retrospective cohort study</p> <p>Measurement</p> <ul style="list-style-type: none"> abuse-related and neglect-related items from the Adverse Childhood Experiences questionnaire (first published by Felitti and colleagues) Life Stressor Checklist questionnaire <p>Analysis</p> <ul style="list-style-type: none"> A series of mixed-effect logistic regression models sensitivity analysis a latent class analysis | The findings suggest that maternal childhood maltreatment experiences can be a risk factor for disease susceptibility in offspring. Two systematic reviews and meta-analyses suggest that childhood adversity, including childhood maltreatment, is a major contributing factor to mortality and morbidity in the USA and Europe, leading to an enormous financial burden corresponding to costs between 1% and 6% of a country's gross domestic product |
| Hanetz-Gamliel, K. & Dollberg, D. G. (2022) | 153 Israeli mothers of children ages 3-12 | Hostile parenting Abuse (emotional, physical, and sexual) neglect (emotional and physical) household dysfunction (substance use, mental illness, parental separation or divorce, mother being treated violently, and having incarcerated household member) | <p>Research Design Correlation</p> <p>Measurement</p> <ul style="list-style-type: none"> The Adverse Childhood Experiences Questionnaire [ACE; (1)] We used the Global Severity Index (GSI) of the Brief Symptom Index [BSI; (87)] The Parent Behavior Inventory [PBI, (89)] | A sequential indirect pathway was identified, suggesting that adverse childhood experiences (ACEs) are linked to the mother's psychopathology symptoms, which, in turn, are associated with hostile parenting. Hostile parenting is further connected to children's internalizing and externalizing behavior. Additionally, another pathway involves the influence of the mother's |

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|------------------------------------|---|---|---|---|
| | | | <ul style="list-style-type: none"> • Child Behavior Checklist questionnaire <p>Analysis</p> <ul style="list-style-type: none"> • Pearson's correlations • t-tests • Hayes PROCESS model 81 | <p>psychopathology symptoms on children's internalizing and externalizing behaviors.</p> |
| <p>Stepleton, K. et al. (2018)</p> | <p>259 caregiver, respondents must respond to the ACE questionnaire, report on at least one of the CBCL subscales, and provide complete data on all covariates.</p> | <ol style="list-style-type: none"> 1. Abuse (emotional, physical, and sexual) 2. Neglect (emotional and physical) 3. Household dysfunction (substance use, mental illness, parental separation or divorce, mother being treated violently, and having incarcerated household member) | <p>Research Design Correlation.</p> <p>Measurement</p> <ul style="list-style-type: none"> • Survey included the Adverse Childhood Experience module from the Behavioral Risk Factor Surveillance System (CDC, n.d.) • Subscales of the Child Behavior Checklist (CBCL; Achenbach, 2009; Achenbach & Rescorla, 2001) <p>Analysis</p> <ul style="list-style-type: none"> • Pairwise correlations • OLS regression models | <p>The primary objective of this research is to investigate the connection between maternal ACEs and problem behaviors observed in children. The findings of the study revealed a significant positive correlation, indicating that as the number of ACEs experienced by caregivers increased, there was a corresponding rise in the levels of behavioral challenges observed in the children. These results emphasize the potential impact of maternal ACEs on children's problem behaviors and underscore the importance of understanding the intergenerational transmission of adversity for effective intervention and support strategies. Further analysis and exploration of the underlying mechanisms contributing to this relationship may yield valuable insights for future research and clinical</p> |



practice in the field of child development and mental health.

Cooke, J. E., et al. (2019)

1994 mother-child dyads from a prospective longitudinal cohort collected from January 2011 to October 2014.

- Maternal anxiety
Maternal depression, Physical Abuse, Emotional Abuse, Sexual Abuse, Household dysfunction

Research Design
Correlation

Measurement

- Adapted version of the Adverse Childhood Experiences (ACEs) Checklist
- Experiences in Close Relationships-Short Form (ECR-S)
- Center for Epidemiologic Studies Depression Scale (CES-D)
- short-form of the Spielberger State Anxiety Scale from the State-Trait Anxiety Inventory Form X (STAI) when their children were 60 months of age (Marteau & Bekker, 1992; Spielberger et al., 1970).
- Parent Rating Scale of the Behavior Assessment System for Children, Second Edition (BASC-2)

Analysis

- Descriptive statistics
- Path analysis

Through path analysis, the study demonstrated a significant association between maternal ACEs and children's internalizing problems, with maternal attachment avoidance acting as an indirect mediating factor in this relationship. Maternal ACEs indirectly predicted of children's externalizing problems via maternal attachment avoidance, attachment anxiety, and depression.

| | | | | |
|--------------------------------|---|---|---|---|
| McDonald, S. W., et al. (2018) | 1994 mothers and children from the All Our Families community-based cohort in Alberta, Canada, followed by pregnancy (from 2008 to 2011) until child age 3 years. | Childhood abuse (emotional abuse, physical abuse, sexual abuse), household dysfunction (domestic violence, household substance abuse), mental illness in the household, criminal behaviour, parental separation or divorce) | <p>Research Design Retrospective cohort study</p> <p>Measurement</p> <ul style="list-style-type: none"> ● Original ACE checklist (Centers for Disease Control and Prevention, 2006) ● Behaviour scales drawn from the National Longitudinal Survey of Children and Youth (Statistics Canada and Human Resources Development Canada, 1994–1995), which uses adapted questions from the Child Behaviour Checklist (Achenbach & Rescorla, 2000) ● Children's Behaviour Questionnaire (CBQ) (Rothbart et al., 2001) ● Parenting Morale Index (PMI) (Trute & Hiebert-Murphy, 2005) ● Parenting Sense of Competence Efficacy Subscale (PSOC) (Johnston & Marsh, 1989) ● Edinburgh Postnatal Depression scale (EPDS) (Cox et al., 1987) ● Centre for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977) ● State Anxiety Inventory (SAI) (Spielberger et al., 1970) ● Life Orientation Test-Revised (LOT-R) (Scheier et al., 1994) | Children whose mothers reported experiencing 3 or more ACEs were more likely to exhibit suboptimal behavior. These children had higher levels of hyperactivity/inattention, physical aggression, anxiety/emotional disorders, separation anxiety, surgency/extraversion, and negative affectivity. Maternal anxiety was associated with increased levels of child physical aggression at age 3. Maternal ACEs can impact parenting behaviors and mental health, which in turn can influence the development of child behavior problems and poor self-regulation. The study highlights the intergenerational risk transmission, including early maternal influences and concurrent environmental factors such as parenting esteem, mental health, and coping strategies. Despite the cohort's relative financial and educational security of the cohort, a significant proportion of participants reported experiencing emotional abuse in childhood and multiple ACEs, suggesting the need for universal and targeted approaches to support families with young children. |
|--------------------------------|---|---|---|---|



- Neuroticism subscale of the Eysenck Personality Questionnaire short form (EPQ) (Eysenck et al., 1985)

Analysis

- Descriptive data
- Bivariate analysis
- Chi-square analysis
- Nested multivariable models
- Multivariable logistic regression

Stargel, L. E., & Easterbrooks, M. A. (2020)

subsample of mother-child dyads (n = 407)

Verbal abuse, physical abuse, sexual abuse, witnessing domestic violence, substance abusing household member, mentally ill household member, separated or divorced parents, incarcerated household member

Research Design
Correlation

Measurement

- The Adverse Childhood Experiences questionnaire (ACES; Centers for Disease Control and Prevention, 2010)
- Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977).
- Strengths and Difficulties Questionnaire (SDQ; Bourdon et al., 2005)

Analysis

- Latent class analysis
- The modified Bolck, Croon, and Hagenaars method

This study reveals distinct levels of severity in ACEs. It identifies four classes: high-risk households with moderate dysfunction, households with violence exposure, low-risk households, and high-risk households with multiple ACEs. The findings demonstrate the varying impacts of ACEs on maternal and child well-being, emphasizing the need for targeted interventions and support.

| | | | | |
|---------------------------|---|---|---|---|
| | | | <ul style="list-style-type: none"> • A secondary model of class-specific regression analyses | |
| Haynes, E., et al. (2020) | 1515 adults considered to be the primary caregivers of the children living in their households. | Household mental illness, household substance use (alcohol & drugs), household incaretion, parental separation/divorce, witnessing violence against a parent, victim of household violence, verbal abuse, and sexual abuse (touched by someone, forced to touch others, forced to have sex) | <p>Research Design</p> <p>correlation</p> <p>Measurement</p> <ul style="list-style-type: none"> • SC BRFSS survey • Children's Health Assessment Survey. <p>Analysis</p> <ul style="list-style-type: none"> • Descriptive and bivariate analyses • Chi-square test • sensitivity analyses | <p>This study found that having a caregiver who has been exposed to four or more ACEs increases the odds of a child developing depression and/or anxiety three-fold.</p> <p>According to the findings of this study, the presence of depression or anxiety in a caregiver leads to a twofold increase in the likelihood of a child developing depression or anxiety, compared to caregivers without these mental health conditions. Additionally, caregivers' own exposure to specific traumas during childhood, such as household mental illness, alcohol use, witnessing violence against a parent, verbal abuse, and certain types of sexual abuse, is significantly associated with their children's likelihood of experiencing depression or anxiety disorders. Regrettably, due to a lack of mental health screening, caregivers may remain unaware of how their past traumatic experiences and current mental state can adversely affect their child's behavior and overall development. This underscores the importance of implementing comprehensive screening</p> |



measures to identify and address caregivers' mental well-being, thus offering opportunities for timely intervention and support for both caregivers and their children.

Dollberg, D. G., & Hanetz-Gamliel, K. (2022)

262 Israeli mothers of children ages 3-12.

Emotional abuse, physical abuse, sexual harassment, emotional neglect, physical neglect, parental separation, divorce or death, mother treated violently, household substance abuse, household mental illness, incarcerated household member

Research Design

Correlation

Measurement

- Anxiety and depression subscales of the Brief Symptom Index (BSI) (Derogatis et al., 1993)
- Adverse Childhood Experiences Questionnaire (ACE) (Centers for Disease Control and Prevention, 2016)
- Meins and Fernyhough (2015) mind-mindedness representational measure
- Parental Child Behavior Checklist questionnaire
- Six items derived from the Traumatic Events Screening Inventory- Parent Report Revised (TESI-C-PPR) (Ford et al., et al., 2002)

Analysis

- Preliminary analyses
- Power analysis

A study conducted during the initial surge of the COVID-19 pandemic in Israel examined the influence of Adverse Childhood Experiences (ACEs) on maternal mental health and child behavior. The findings revealed significant associations between ACEs and maternal anxiety and depressive symptoms. These associations were observed across mothers with different levels of mentalization skills and were influenced by the child's age. Maternal ACEs were linked to higher levels of depressive and anxiety symptoms in mothers and more internalizing behaviors in their children. The study highlighted the mediating role of maternal anxiety and depression symptoms in the relationship between ACEs and child internalizing behaviors. However, no direct associations were found between maternal ACEs and children's externalizing behaviors. These findings underscore the transdiagnostic nature of ACEs as a risk factor for

| | | | | |
|------------------------|--|--|---|---|
| | | | <ul style="list-style-type: none"> • Spearman's rho • Pearsons r • PROCESS model 72 | <p>affective disorders and shed light on the complex interplay between maternal ACEs, mental health, and child behavior.</p> |
| Doi, S., et al. (2020) | <p>7964 pairs, containing:</p> <ul style="list-style-type: none"> • fifth-grade n = 2353 • eight-grade n = 2582 • eleventh grade n = 3029 | <p>Parent loss, Childhood Maltreatment, Parental Divorce, Physical Abuse From Parents, Neglect from parents, Psychological Abuse from parents.</p> | <p>Research Design Correlational</p> <p>Measurement</p> <ul style="list-style-type: none"> • Questions on ACEs were based on Felitti et al. (1998) and Green et al. (2010), and modified to suit the Japanese context. • One item self-rated academic performance • One of the subscales from the Japanese version of the Children's Perceived Competence Scale (Sakurai, 1992) <p>Analysis</p> <ul style="list-style-type: none"> • .Ordinal logistic regression analysis • Bivariate models | <p>The results of this study provide evidence of a dose-response relationship between maternal ACEs and self-rated academic performance in adolescent offspring. Adolescents with mothers who experienced a higher number of ACEs were more prone to reporting lower academic performance. Moreover, the investigation highlighted that, among the various types of ACEs, the association between parental loss and offspring's academic performance remained significant even after controlling for all included mediators, indicating a direct impact of maternal ACEs on academic outcomes. These findings contribute valuable insights into the intergenerational impact of maternal ACEs on the academic trajectory of adolescent children, emphasizing the importance of understanding and addressing the potential implications of parental adversity on educational outcomes.</p> |

Articles Quality Assessment



The evaluation of each chosen journal article will be presented in Table 2, Table 3, and Table 4, using the Critical Appraisal approach provided by the Joanna Briggs Institute (JBI) Critical Appraisal Tools. Table 2 is dedicated to assessing the quality of journals that utilized the Cross-Sectional Study method, while Table 3 examines the quality of articles that employed Cohort Studies. Table 4 specifically evaluates journal articles that used the Qualitative Study method.

Table 3.

JBI Cross-sectional study

| Author (Years) | Were the criteria for inclusion in the sample clearly defined? | Were the study subjects and the setting described in detail? | Was the exposure measured in a valid and reliable way? | Were objective, standard criteria used for measurement of the condition? | Were confounding factors identified? | Were strategies to deal with confounding factors stated? | Were the outcomes measured in a valid and reliable way? | Was appropriate statistical analysis used? |
|---|--|--|--|--|--------------------------------------|--|---|--|
| Rodriguez, V. J., et al. (2021) | Yes | Yes | Yes | Yes | Unclear | Unclear | Yes | Yes |
| Doi, S., et al. (2020) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Haynes, E., et al. (2020) | Yes | Yes | Yes | Yes | N/A | N/A | Yes | Yes |
| Hanetz-Gamlel & Dollberg (2022) | Yes | Yes | Yes | Yes | Yes | Unclear | Yes | Yes |
| Cooke, J. E., et al. (2019) | Yes | Yes | Yes | Yes | Yes | Unclear | Yes | Yes |
| Stargel, L. E., & Easterbrooks, M. A. (2020) | Yes | Yes | Yes | Yes | N/A | N/A | Yes | Yes |
| Chen, D., et al. (2023) | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Stepleton, K., et al. (2018) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Dollberg, D. G. and Hanetz-Gamliel, K. (2022) | Yes | Yes | Yes | Yes | Unclear | Unclear | Yes | Yes |

Table 4.
JBI Cohort studies

| Author (Years) | Were the two groups similar and recruited from the same population? | Were the exposures measured similarly to assign people to both exposed and unexposed groups? | Was the exposure measured in a valid and reliable way? | Were confounding factors identified? | Were strategies to deal with confounding factors stated? | Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)? | Were the outcomes measured in a valid and reliable way? | Was the follow up time reported and sufficient to be long enough for outcomes to occur? | Was follow up complete, and if not, were the reasons to loss to follow up described and explored? | Were strategies to address incomplete follow up utilized? | Was appropriate statistical analysis used? |
|--------------------------------|---|--|--|--------------------------------------|--|--|---|---|---|---|--|
| McDonald, S. W., et al. (2018) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Unclear | Yes |
| Moog, N. K., et al. (2023) | Yes | Yes | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes | Yes |
| Buccheim, A., et al. (2022) | Yes | Yes | Yes | Unclear | No | Unclear | Yes | Unclear | Yes | No | Yes |



Table 5.
JBI Qualitative Study

| Author (Years) | Is there congruity between the stated philosophical perspective and the research methodology? | Is there congruity between the research methodology and the research question or objectives? | Is there congruity between the research methodology and the methods used to collect data? | Is there congruity between the research methodology and the representation and analysis of data? | Is there congruity between the research methodology and the interpretation of results? | Is there a statement locating the researcher culturally or theoretically? | Were the outcomes measured in a valid and reliable way? | Are participants, and their voices, adequately represented? | Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body? | Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data? |
|--------------------------------|---|--|---|--|--|---|---|---|---|---|
| McDonald, S. W., et al. (2018) | Yes | Yes | Yes | Unclear | Yes | Unclear | Yes | Yes | Yes | Yes |

Findings on the Different Influences between Mother's ACEs and Intergenerational Transmission

Linkage of Mother's ACEs and Children's Adversity. The results revealed a significant relationship between caregivers who have experienced four or more Adverse Childhood Experiences (ACEs) with their childhood adversity (Dollberg & Hanetz-Gamilel, 2022; Rodriguez, 2021; Cooke et al., 2019; Strangel & Easterbrooks, 2020; McDonald, 2018; Stepleton et al., 2018). Specifically, the research revealed that the likelihood of a child developing mental health conditions was significantly elevated, being three times higher (adjusted odds ratio [aOR] 3.01; 95% confidence interval [CI] 1.59-5.69), when their caregiver had experienced four or more Adverse Childhood Experiences (ACEs). Additionally, there was a twofold increase in the probability of the child experiencing these conditions if their caregiver also faced depression or anxiety (aOR 2.24; 95% CI 1.41-3.57) (Chen et al., 2023). The study's findings corroborate the hypothesis that adverse childhood experiences (ACEs) of mothers are linked to the transmission of parenting violations across generations, possibly mediated by several confounding factors.

The Mediator and Moderator Factors in the Intergenerational Transmission. The confounding between mother's ACEs and childhood maltreatment corresponded by maternal mentalization, which regulates the influence of effect on children's behavior problems; maternal emotion dysregulation, which indirect aggression to child maltreatment; and even more basic on maternal attachment avoidance, attachment anxiety, and depression symptoms (Dollberg & Hanetz-Gamilel, 2022; Rodriguez, 2021; Cooke et al., 2019). Moreover, it has been proposed that emotion dysregulation plays a mediating role in the intergenerational transmission of child maltreatment. Notably, maternal Adverse Childhood Experiences (ACEs) indirectly predicted the externalizing problems in their children. Additionally, mother's psychopathology has been linked to hostile parenting, which, in turn, acts as a mediator for children's internalizing and externalizing behavior. These complex relationships between maternal factors and parenting styles ultimately influence children's emotional and behavioral outcomes (Hanetz-Gamilel & Dollberg, 2022). Social support can act as a mediator and weaken maternal problems. However, this support may not be enough for children with specific genotypes, as they may exhibit disorganized behavior during the Strange Situation Procedure (SSP) (Bucheim, 2022)

Externalizing and Internalizing Model of Children's Adversity. The conceptual findings of intergenerational transmission showed that most of the studies brought up the externalizing and internalizing model of childhood from what their mothers behave and threat during the child's preliminary stages of development (Dollberg & Hanetz-Gamilel, 2022; Rodriguez, 2021; Cooke et al., 2019). Maternal ACEs influenced children's risk for poor behavioral outcomes through direct and indirect pathways. To prevent the intergenerational transmission of risk, it is important to target maternal insecure attachment style and depression symptoms as areas for intervention in mothers with histories of ACEs (Cooke et al., 2019).

The ACEs Classes and Risk Model. Strangel and Easterbrooks (2020) showed that the diversity of ACEs in adolescent mothers might develop into four classes, including 1) high for household dysfunction and moderate other risk class, 2) high-risk for abuse and moderate other risk class, 3) low-risk class, and 4) high, multiple-risk class. Children whose mothers were classified in the High-Risk for Household Dysfunction and Moderate Other Risk class exhibited lower internalizing behaviors than children of mothers in the High, Multiple-Risk class. Additionally, mothers in the High, Multiple-Risk class displayed average levels of depression

reaching or surpassing the threshold, indicating a risk for clinical depression. In conclusion of the findings, when mothers experienced higher levels of depression, their children demonstrated more internalizing problems. Individuals who have experienced substance abuse in their parents are likely to be influenced by high levels of parental stress and may develop an insecure attachment style, which can negatively impact their children's ability to form secure psychosocial development (Tedgard, 2018).

Mother's ACEs, Children's Adversity, and The Influence. Doi et al. (2020) found that adolescents with low academic performance are related to mothers who have experienced ACEs (Adverse Childhood Experiences) during their childhood. However, this scenario only applies when the ACEs involve parental death or divorce and does not apply to ACEs resulting from improper parenting practices by the adolescent's mother. Nevertheless, this study still indicates that the connection between the ACEs experienced by the mother and the educational performance of their child can manifest through new mechanisms. Furthermore, Moog et al. (2023) provide compelling evidence that maternal childhood maltreatment experiences can significantly increase the risk of disease susceptibility in offspring. The intergenerational transmission of adverse experiences poses a significant health concern, as children of mothers who have experienced maltreatment during their childhood are more likely to face various health issues. This suggests that the impact of maternal childhood maltreatment extends beyond the immediate generation and has long-lasting effects on the health outcomes of future generations. While McDonald et al. (2018) showed that mothers who reported three or more ACEs were more likely to have mental health and parenting morale concerns and potentially maladaptive strategies for coping in times of stress.

DISCUSSION

Studies have shown a significant association between caregivers who have experienced ACEs and childhood adversity. The odds of a child developing mental health conditions were substantially higher when their caregiver had been exposed to multiple ACEs – four and more Heynes et al. (2020). Furthermore, the presence of caregiver depression or anxiety further increases the likelihood of their child experiencing these conditions. Of the 13 studies reviewed, most reported several factors that mediate and moderate the relationship between a mother's ACEs and childhood maltreatment. Despite efforts to select relatively comparable studies in this review, comparisons remain challenging due to variations in measurement and sample characteristics, such as infant or children age and the types of adverse childhood experiences (ACEs). While there was variability in the methodological quality of the studies, most of those that found a significant effect were rated as strong, with five studies particularly noted for their strong methodological quality. These studies (Dollberg & Hanetz-Gamilel, 2022; Rodriguez, 2021; Cooke et al., 2019; Strangel & Easterbrooks, 2020; McDonald, 2018; Stepleton et al., 2018) primarily reported an indirect effect of maternal history of maltreatment on later parenting behavior through maternal psychological or biological factors.

The confounding factor which indirectly affect intergenerational transmission, such as maternal mentalization, emotion dysregulation, attachment avoidance, attachment anxiety, and depression symptoms, play crucial roles in shaping children's behavior problems. Emotion dysregulation has been identified as a key mediator in the intergenerational transmission of child maltreatment. Additionally, maternal psychopathology has been linked to hostile parenting, which, in turn, is associated with children's internalizing and externalizing behaviors. The

externalizing and internalizing model of childhood by their mother's attitude in children's early stage of development plays a crucial factor as the basic explanation of the intergenerational transmission. Maternal ACEs, directly and indirectly, influence children's risk for poor behavioral outcomes. However, it is worth noting that the study by Strargel and Easterbrooks (2020) classified adolescent mothers' ACEs into four distinct classes, revealing diverse patterns of adversity. Children whose mothers were classified in the High-Risk for Household Dysfunction and Moderate Other Risk class exhibited lower levels of internalizing behaviors compared to children of mothers in the High, Multiple-Risk class. The association between maternal depression and children's internalizing problems highlights the importance of addressing maternal mental health for the well-being of both mothers and children.

The influences on this intergenerational transmission are varied from children's low academic performance to the risk of disease susceptibility in offspring. Adolescents with low academic performance were found to have a relationship with mothers who experienced ACEs during their childhood (Doi et al., 2020). These findings indicate the existence of new mechanisms through which the ACEs experienced by mothers affect their children's educational performance. Additionally, maternal childhood maltreatment has been linked to an increased risk of disease susceptibility in offspring, emphasizing the need to address and prevent childhood maltreatment to protect future generations' health (Moog et al., 2023). The impact of maltreatment from mothers with ACEs on their children has found significant others in child social and developmental conditions, redirecting to another adverse experience which we behalf as intergenerational transmission.

In addition, measurement and sample were important considerations in the thirteen studies included in this review. Various measurements were utilized, with The Childhood Trauma Questionnaire being the most commonly used. However, there were 38 different measurements employed across the studies, making comparisons challenging. The age range of the children studied varied, with some articles focusing on mothers from pregnancy until the child reached three years old, while others examined mothers of preschool-aged, fifth-grade, eighth-grade, eleventh-grade, and seventeen-year-old children. Most of the studies included mothers who were 17 years old and above, with one study specifically investigating young parents aged 16 to 21. The participants represented diverse ethnicities, with a predominant focus on white ethnicity, including Caucasian and European American, observed in six out of the thirteen included studies. Based on each study's limitation, they commonly suggested that the future directions regarding intervening research on intergenerational transmission may take important bases to find the direct association and effect measures on the ACEs subject.

Future Direction

There are several limitations to consider when interpreting the findings of this research. Firstly, the systematic literature review process relies on the availability and quality of existing studies, which may vary. The included studies may have employed different methodologies, resulting in heterogeneity that needs to be considered when interpreting the overall conclusions. The accuracy and reliability of the data collected from self-reports may vary across different populations and cultural contexts. The majority of the studies included in this review were conducted in the United States. In contrast, others took place in Europe (Germany and Sweden), Asia (China and Japan), and the Middle East (Israel). Based on this data collection, we may argue that the population sample of research needs to be widened to get a better conclusion to avoid cultural bias factors or dividend into deep research in any cultural group. Although the criteria of

exclusion in this review are precisely written with a strict selection of inclusion into 13 articles, the database of this review narrowed only to three databases (Scopus, JSTOR, and ProQuest) which maybe has not have included most current data that linkage between mother's ACEs and children's adversity to acknowledge the comprehensive influence by varied factors. The research may not have accounted for all possible confounding variables or adequately addressed the interactions between various elements involved in the intergenerational transmission of parenting violations.

Notwithstanding the limitations above, the findings of this research yield valuable insights into the repercussions of maternal adverse childhood experiences (ACEs) on children's developmental outcomes. Furthermore, the study sheds light on the variations in the indirect effects of intergenerational transmission and contributes to understanding the motivations underlying parenting violations. It is worth noting that maternal mentalization might play a significant role in causing emotional dysregulation, depressive symptoms, and negative attachment in children, warranting further investigation in future research endeavors.

Additionally, the findings emphasize the importance of classifying ACEs and comprehending the dynamic impact of maternal adverse experiences on children's development, suggesting that such insights could be instrumental in shaping interventions and informing future research directions. Targeted interventions and support are crucial in breaking the cycle of intergenerational transmission, bolstering children's internalization and externalization capacities during early development. One possible avenue for intervention lies in addressing a mother's mentalizing abilities, potentially impacting intergenerational transmission. Group therapy and mother-child interaction-focused interventions are commonly suggested approaches.

In light of these findings, future studies should address the identified limitations and expand upon the existing knowledge to develop effective prevention and intervention strategies. To deepen our understanding of the association between early maternal experiences and subsequent caregiving behaviors, future research should replicate studies using samples with comparable socioeconomic or clinical risk profiles while consistently employing standardized measurement methodologies. Such endeavors will undoubtedly contribute to advancing the field and facilitating evidence-based practices in this area of inquiry.

CONCLUSION

The findings of this systematic literature review highlight the significant impact of a mother's adverse childhood experiences (ACEs) on the intergenerational transmission of parenting violations and their effects on child outcomes. The results indicate a strong association between caregivers who have experienced ACEs and childhood adversity, with higher odds of children developing mental health conditions. The study also identifies several mediating and moderating factors that influence the relationship between maternal ACEs and childhood maltreatment, such as maternal mentalization, emotion dysregulation, attachment styles, and depression symptoms. The classification of ACEs into distinct classes further reveals diverse patterns of adversity and their differential effects on child internalizing behaviors. However, variations in measurement and sample characteristics pose challenges for comparisons across studies. Future research should focus on replicating studies using similar socioeconomic or clinical risk profiles and employing consistent measurement methodologies to enhance understanding and inform effective prevention and intervention strategies. Addressing maternal mental health and implementing targeted interventions to break the cycle of intergenerational transmission are crucial steps in promoting the well-being of both mothers and children.

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CONFLICT OF INTEREST

The authors have nothing to disclose regarding potential conflicts of interest. The contents of the work have been reviewed by all co-authors, who agree with its presentation, and no financial interests are at stake.

REFERENCE

- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. N. (2014). Patterns of attachment: A psychological study of the strange situation. *Psychology Press*. (Original work published 1978)
- Ali, E., Letourneau, N., & Benzies, K. (2021). Parent-child attachment: A principle-based concept analysis. *SAGE Open Nursing*, 7, 237796082110090. <https://doi.org/10.1177/23779608211009000>
- Buchheim, A. ;, Ziegenhain, U. ;, Kindler, H. ;, Waller, C. ;, Gündel, H. ;, Karabatsiakakis, A. ;, & Fegert, J. (2022). Identifying Risk and Resilience Factors in the Intergenerational Cycle of Maltreatment: Results From the TRANSGEN Study Investigating the Effects of Maternal Attachment and Social Support on Child Attachment and Cardiovascular Stress Physiology. *Frontiers in Human Neuroscience*, 1–37. <https://doi.org/https://doi.org/10.3389/fnhum.2022.890262>
- Benoit, D. (2004). Infant-parent attachment: Definition, types, antecedents, measurement and outcome. *Paediatrics and Child Health*, 9(8), 541–545. <https://doi.org/10.1093/pch/9.8.541>
- Berzenski, S. R., Yates, T. M., & Egeland, B. (2014). A multidimensional view of continuity in the intergenerational transmission of child maltreatment. In J. E. Korbin & R. D. Krugman (Eds.), *Handbook of child maltreatment* (pp. 115–129). Dordrecht: Springer Netherlands.
- Bowlby, J. & World Health Organization [WHO]. (1952). Maternal care and mental health: A report prepared on behalf of the World Health Organization as a contribution to the United Nations programme for the welfare of homeless children, 2nd ed. *World Health Organization*. <https://apps.who.int/iris/handle/10665/40724>
- Bowlby, J. (1973). Attachment and Loss Volume II Separation Anxiety and Anger. In *Basic Books: Vol. II*. <https://doi.org/10.11936/bjtxb2016050051>
- Cassidy, J., Jones, J. D., & Shaver, P. R. (2013). Contributions of attachment theory and research: A framework for future research, translation, and policy. *Development and Psychopathology*, 25(42), 1415–1434. <https://doi.org/10.1017/s0954579413000692>
- Chamberlain, C., Ralph, N., Hokke, S., Clark, Y., Gee, G., Stansfield, C., Sutcliffe, K., Brown, S. J., & Brennan, S. (2019). Healing the past by nurturing the future: A qualitative systematic review and meta-synthesis of pregnancy, birth and early postpartum experiences and views of parents with a history of childhood maltreatment. *PLOS ONE*, 14(12), e0225441. <https://doi.org/10.1371/journal.pone.0225441>
- Chen, D., Lin, L., Li, C., Chen, W., Zhang, Y., Ren, Y., & Guo, V. Y. (2023). Maternal adverse childhood experiences and health-related quality of life in preschool children: a cross-sectional study. *Child and Adolescent Psychiatry and Mental Health*, 17(1). <https://doi.org/10.1186/s13034-023-00570-6>
- Cooke, J. E., Racine, N., Plamondon, A., Tough, S., & Madigan, S. (2019). Maternal adverse childhood experiences, attachment style, and mental health: Pathways of transmission to child behavior problems. *Child Abuse and Neglect*, 93, 27–37. <https://doi.org/10.1016/j.chiabu.2019.04.011>
- Cooke, J. E., Racine, N., Plamondon, A., Tough, S., & Madigan, S. (2019). Maternal adverse childhood experiences, attachment style, and mental health: Pathways of transmission to child behavior problems. *Child Abuse & Neglect*, 93, 27–37. <https://doi.org/10.1016/j.chiabu.2019.04.011>
- Dagan, O., Schuengel, C., Verhage, M., Van IJzendoorn, M. H., Sagi-Schwartz, A., Madigan, S., Duschinsky, R., Roisman, G. I., Bernard, K., Bakermans-Kranenburg, M. J., Bureau, J., Volling, B. L., Wong, M. P., Colonesi, C., Brown, G. D., Eiden, R. D., Fearon, P., Oosterman, M., Aviezer, O., & Cummings, E. M. (2022). Configurations of mother-child and father-child attachment as predictors of internalizing and externalizing behavioral problems: An individual participant data (IPD) meta-analysis. *New Directions for Child and Adolescent Development*, 2021(180), 67–94. <https://doi.org/10.1002/cad.20450>
- Doi, S., Fujiwara, T., & Isumi, A. (2020). Association between maternal adverse childhood experiences and child's self-rated academic performance: Results from the K-CHILD study. *Child Abuse and Neglect*, 104. <https://doi.org/10.1016/j.chiabu.2020.104478>

- Dollberg, D. G., & Hanetz-Gamliel, K. (2022). Mediation-Moderation Links Between Mothers' ACEs, Mothers' and Children's Psychopathology Symptoms, and Maternal Mentalization During COVID-19. *Frontiers in Psychiatry, 13*. <https://doi.org/10.3389/fpsy.2022.837423>
- de La Rochebrochard, E., Rozée, V. Revealing gender double standards in the parenthood norm depends on question order. *Sex Roles 86*, 471–481 (2022). <https://doi.org/10.1007/s11199-022-01276-3>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., . . . Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. *American Journal of Preventive Medicine, 14*(4), 245–258. [https://doi.org/10.1016/s0749-3797\(98\)00017-8](https://doi.org/10.1016/s0749-3797(98)00017-8)
- Hanetz-Gamliel, K., & Dollberg, D. G. (2022). Links between mothers' ACEs, their psychopathology and parenting, and their children's behavior problems—A mediation model. *Frontiers in Psychiatry, 13*. <https://doi.org/10.3389/fpsy.2022.1064915>
- Haynes, E., Crouch, E., Probst, J., Radcliff, E., Bennett, K., & Glover, S. (2020). Exploring the association between a parent's exposure to Adverse Childhood Experiences (ACEs) and outcomes of depression and anxiety among their children. *Children and Youth Services Review, 113*. <https://doi.org/10.1016/j.chilyouth.2020.105013>
- Hong, Y. J., & Park, J. Y. (2012). Impact of attachment, temperament and parenting on human development. *Korean Journal of Pediatrics, 55*(12), 449. <https://doi.org/10.3345/kjp.2012.55.12.449>
- Kallitsoglou, A., & Repana, V. (2021). Attachment disorganisation and poor maternal discipline in early childhood: independent contributions to symptoms of conduct problems. *Emotional and Behavioural Difficulties, 1*–13. <https://doi.org/10.1080/13632752.2021.1984192>
- Karakaş, N. M., Sari, B., Aksakal, F. N., Özdemir, D. F., & Dağlı, F. Ş. (2021). Mother-child attachment patterns in mothers with and without a history of adverse childhood experiences. *Current Psychology, 40*(1), 44–55. <https://doi.org/10.1007/s12144-020-00657-9>
- Linde-Krieger, L. B., & Yates, T. M. (2018). Mothers' history of child sexual abuse and child behavior problems: The mediating role of mothers' helpless state of mind. *Child Maltreatment, 23*(4), 376–386. <https://doi.org/10.1177/1077559518775536>
- McDonald, S. W., Madigan, S., Racine, N., Benzies, K., Tomfohr, L., & Tough, S. (2019). Maternal adverse childhood experiences, mental health, and child behaviour at age 3: The all our families community cohort study. *Preventive Medicine, 118*, 286–294. <https://doi.org/10.1016/j.ypmed.2018.11.013>
- Moog, N. K., Cummings, P. D., Jackson, K. L., Aschner, J. L., Barrett, E. S., Bastain, T. M., Blackwell, C. K., Bosquet Enlow, M., Breton, C. V., Bush, N. R., Musci, R. J., & Buss, C. (2023). Intergenerational transmission of the effects of maternal exposure to childhood maltreatment in the USA: a retrospective cohort study. *The Lancet Public Health, 8*(3), e226–e237. [https://doi.org/10.1016/S2468-2667\(23\)00025-7](https://doi.org/10.1016/S2468-2667(23)00025-7)
- McCarthy, G., & Maughan, B. (2010). Negative childhood experiences and adult love relationships: The role of internal working models of attachment. *Attachment & Human Development, 12*(5), 445–461. <https://doi.org/10.1080/14616734.2010.501968>
- Rodriguez, C. M. (2010). Parent-child aggression: Association with child abuse potential and parenting styles. *Violence and Victims, 25*(6), 728–741.
- Rodriguez, V. J., Are, F., Madden, A., Shaffer, A., & Suveg, C. (2021). Intergenerational Transmission of Childhood Maltreatment Mediated by Maternal Emotion Dysregulation. *Journal of Child and Family Studies, 30*(8), 2068–2075. <https://doi.org/10.1007/s10826-021-02020-3>
- Searle, S. L. (2010). Natural caregiving practices and mothers' decisions. *All Graduate Theses and Dissertations, 775*. <https://digitalcommons.usu.edu/etd/775>
- Stargel, L. E., & Easterbrooks, M. A. (2020). Diversity of adverse childhood experiences among adolescent mothers and the intergenerational transmission of risk to children's behavior problems. *Social Science and Medicine, 250*. <https://doi.org/10.1016/j.socscimed.2020.112828>
- Stepleton, K., Bosk, E. A., Duron, J. F., Greenfield, B., Ocasio, K., & MacKenzie, M. J. (2018). Exploring associations between maternal adverse childhood experiences and child behavior. *Children and Youth Services Review, 95*, 80–87. <https://doi.org/10.1016/j.chilyouth.2018.10.027>
- Sroufe, L. A., Coffino, B., & Carlson, E. A. (2010). Conceptualizing the role of early experience: Lessons from the Minnesota longitudinal study. *Developmental Review, 30*(1), 36–51. <https://doi.org/10.1016/j.dr.2009.12.002>
- Tedgård, E., Råstam, M., & Wirtberg, I. (2018). Struggling with one's own parenting after an upbringing with substance abusing parents. *International Journal of Qualitative Studies on Health and Well-Being, 13*(1). <https://doi.org/10.1080/17482631.2018.1435100>
- Verhage, M. L., Schuengel, C., Madigan, S., Fearon, R. M. P., Oosterman, M., Cassibba, R., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2016). Narrowing the transmission gap: A synthesis of three decades of research on intergenerational transmission

of attachment. *Psychological Bulletin*, 142(4), 337–366. <https://doi.org/10.1037/bul0000038>

Zaidman-Mograbi, R., Roux, L. L., & Hall, H. (2020). The influence of culture on maternal attachment behaviours: a South African case study. *Children Australia*, 45(1), 30–39. <https://doi.org/10.1017/cha.2020.4>

Zeegers, M. A. J., Colonesi, C., Stams, G.-J. J. M., & Meins, E. (2017). Mind matters: A meta-analysis on parental mentalization and sensitivity as predictors of infant–parent attachment. *Psychological Bulletin*, 143(12), 1245–1272. <https://doi.org/10.1037/bul0000114>