



Interventions to Reduce Child Maltreatment: A Systematic Review with a Narrative Synthesis

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Abstract

Child maltreatment has been a prominent topic on the political agenda for the past decade. However, while there are several types of interventions that can potentially benefit the prevention of child maltreatment, uncertainties remain regarding the transferability of these interventions to different contexts and their overall impact. Consequently, we conducted a systematic review of intervention studies aimed at preventing child maltreatment. We searched for studies published between 2016 and 2021, using predefined keywords from various bibliographical databases including PsycINFO, SocINDEX, Social Care Online, Web of Science, and ASSIA. The initial literature search yielded 3221 studies based on titles and abstracts, after removing duplicates. Out of these, 251 studies were screened based on full texts, resulting in the selection of 56 studies that met our inclusion criteria and were retained for extraction and analysis. The screening and data extraction processes were conducted by at least two independent reviewers. Given the heterogeneity of the included studies, we performed a narrative synthesis and categorized the 56 studies based on intervention type, control condition, outcomes, effects and quality. The results indicated that most of the studies employed individual randomization, with the control group most often receiving treatment as usual. Home visiting programs and educational interventions emerged as the most prevalent types of interventions. The review also demonstrated that a significant number of the included studies reported positive effects on one or more outcomes, such as indicators of maltreatment, sub-optimal parenting practices, and problematic child behaviors. While nearly one-third of the studies did not report an effect size, those that did reported varying types of effect sizes. Additionally, only a few studies met the assessed quality criteria.

Keywords Child Maltreatment · Interventions · RCT · Systematic Review · Effects

Introduction

Child maltreatment is a severe societal issue that can have lifelong adverse consequences, leading to negative physical and psychological outcomes, an increased risk of substance abuse, violent behavior, and challenges in social relationships (Aos et al., 2004; Carr et al., 2020; Eisner et al., 2015). Given that the long-lasting consequences of child maltreatment are so severe, early intervention to reduce the risk of its occurrence is of paramount importance. Therefore, interventions aimed at preventing and safeguarding at-risk children should be grounded in research to ensure their effectiveness (Aos et al., 2004; Eckenrode et al., 2000; Eisner et al., 2015; MacMillan, 2009; MacMillan et al., 2009).

The prevalence of child maltreatment is a complex issue influenced by various factors, including the type of maltreatment, diverse definitions, and measurement methods employed across different countries and regions (Moody et al., 2018; Saini et al., 2019). Globally, estimates from the World Health Organization (WHO, 2022) suggest that nearly 75% of children between the ages of 2 and 4 have experienced physical or psychological punishment from their parents or caregivers, while approximately one in five women and one in thirteen men have endured sexual abuse during their childhood (WHO, 2022). In the United States, the Centers for Disease Control and Prevention estimate that one in seven children have experienced child abuse or neglect (CDC, 2022). In the European region, prevalence rates for child maltreatment are estimated at 9.6% for sexual abuse, 22.9% for physical abuse and 29.1% for psychological abuse (Galinsky et al., 2013). Available data from Norway indicates that around 20% of children have encountered at least one instance of physical abuse by an adult, with approximately 5% experiencing more severe forms of physical abuse (Hafstad & Augusti, 2019). However, it is important to note that the prevalence and severity of child maltreatment may be underestimated and could potentially be higher than what official statistics or surveys indicate (Finkelhor, 2018; Stoltenborgh et al., 2015). Child maltreatment often takes place in secrecy and is frequently perpetrated by individuals known and trusted by the child, such as family members or caregivers, making it challenging for victims to disclose or for others to detect (Morrison et al., 2018; Tener, 2018). Additionally, children may fear retaliation or experience feelings of shame or guilt, which can prevent them from reporting the abuse.

The goal of eliminating child maltreatment has received massive global attention (INSPIRE, 2021). In Europe, there has been a call to prioritize the implementation of effective interventions for the prevention of child maltreatment, placing emphasis on intervention studies with robust research designs such as randomized controlled trials (European Commission, 2016; WHO, 2014). The UN's (United Nations) agenda on ending violence against children by 2030 emphasizes the importance of further evaluating the progress and impact of programs and policies to end child maltreatment and generally to invest in more and better evidence (UN, 2019). To address this need for evaluation, this systematic review aims to identify and assess interventions with potential to prevent child maltreatment.

Some previous reviews of interventions to prevent child maltreatment have focused on the effectiveness of parenting programs, such as those demonstrated by Pedersen et al. (2019), Gardner et al., (2019a, b), and Chen and Chan (2016). Other reviews have compared various types of interventions, assessed the effectiveness of certain elements within interventions, or explored effectiveness for different age groups (Gubbels et al., 2021; Stith et al., 2022; van der Put et al., 2018; van Ijzendoorn et al., 2020). Among these reviews, the synthesis of meta-analyses conducted by van Ijzendoorn et al. (2020) indicated modest overall effectiveness of preventative interventions, while the meta-analyses by van der Put et al. (2018) revealed that within preventative interventions, larger effect sizes were observed in short-term interventions, in those targeting the enhancement of parental self-confidence, and in interventions administered exclusively by professionals. Accordingly, the meta-analyses by Gubbels et al. (2021) of home visiting programs, showed a small but significant overall effect, but some program components were more effective than others. Among the more effective components were programs focusing on improving parental expectation of the child or parenthood, programs targeting parental responsiveness to a child's needs, and programs using video-based feedback. Furthermore, the systematic review by Stith et al. (2022) revealed that among interventions that focused on enhancing couple and parent-child relationships, both parent training programs and relationship educational approaches appeared to mitigate instances of child maltreatment and intimate partner violence. However, the meta-review by Gardner et al., (2019a, b) of parenting interventions did not find support for that the effects of interventions varied between children of different ages or that targeting interventions to a narrower age-group would increase effectiveness.

Although these previous reviews and meta-reviews have contributed to our understanding of the effectiveness of interventions in preventing child maltreatment, this review aims to expand upon this existing knowledge by encompassing various types of interventions aimed at preventing child maltreatment, while also examining their contextual factors, intervention types, outcomes, effects and quality. The objective of this study is to consolidate the current understanding of interventions designed to prevent child maltreatment. We use the definition by WHO (2022) to define child maltreatment as 'encompassing physical abuse, emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which results in actual or potential harm to the child's health, survival, or dignity in the context of a relationship of responsibility, trust or power'. Hence, this systematic review aims to offer a valuable contribution to existing literature by providing an updated synthesis of recent evidence and identifying research gaps based on the mapping of evidence.

Method

Search Strategy

This review adheres to the guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). We did not register a protocol. The search strategy (including terminology, keywords, and research databases) was

defined in collaboration between the research group and information specialists. While the researchers defined the research area, appropriate keywords, and databases the information specialists helped us to specify the final search strategy. This specification included for instance, to identify the right keywords for each database. The searches were conducted in October 2021 by the information specialists at Oslo Metropolitan University, utilizing the following databases: Web of Science (SSCI and emerging sources), ASSIA, SocIndex, Social care, and PsycInfo. The search strategy incorporated three main areas: 1) child maltreatment and relevant synonyms, 2) family or parents, including various synonymous terms, and 3) research designs, including randomized controlled trials (RCTs), quasi-experimental studies, and systematic reviews. Furthermore, the study had to be published in English in peer-reviewed journals. To provide an up-to-date synthesis of the recent evidence, we limited the review to studies published between 2016 and 2021.

Data Extraction

We conducted a rigorous screening that involved carefully assessing the titles and abstracts of all publications. To ensure methodological rigor, we decided to exclude all studies that did not report results from RCTs. We also excluded meta-analyses and systematic reviews to avoid redundancy and overlapping studies. For a study to be included in this review, it needed to be an RCT of interventions targeting child maltreatment prevention among children under the age of 12. As the perspective of the review is preventative, we preferred to only focus on children under 12 years, although adolescents also could have been relevant to include in the review. Other reasons to focus on children under 12 years is to decrease the heterogeneity in the literature search and, accordingly, that the interventions and services for children and adolescents in some cases are organized separately for those under and over 12 years.

We used the Covidence Software (Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia, 2022) for conducting abstract screening, full-text review, and data extraction. Covidence is a web-based collaboration software platform that streamlines the production of systematic and other literature reviews. We recorded the following information: authors' names, year of publication, number of participants, participant characteristics and context, intervention type, control condition, study outcomes, and key findings including effect sizes when applicable. The process involved eight researchers, who are also the authors of this article. Each study underwent a rigorous independent screening process, initially based on titles and abstracts. Subsequently, the full texts of included studies were examined, and data extraction was done independently by at least two authors. In cases of disagreement a third author was involved. Any further conflicts that arose during the process were resolved through discussions among all authors.

We assessed inter-rater reliability through Cohen's Kappa, that is a statistical measure that is used to evaluate inter-rater reliability. It is more robust than simple percentage agreement calculation since it considers the agreement occurring by chance

(Warrens, 2015). Generally, Cohen's Kappa values above 0.6 signify substantial agreement, while values between 0.4 and 0.6 suggest moderate agreement, and values below 0.4 indicate fair to poor agreement (Warrens, 2015).

From data over agreement rates for the reviews of titles and abstracts, we have 11 different pairs of reviewers and their corresponding Cohen's Kappa values. Out of these 11 reviewer pairs, four pairs evaluated 100 or more titles and abstracts. The three pairs that conducted the most reviews – respectively assessing 1,138, 1,115, and 739 titles and abstracts – demonstrated moderate agreement, with Cohen's Kappa values of 0.435, 0.524, and 0.486, respectively. The pair which reviewed 100 titles and abstracts, showed fair agreement with a Cohen's Kappa value of 0.260.

We also assessed inter-rater reliability within the full-text reviews, revealing a variation in inter-rater reliability among the 14 reviewer pairs who performed the reviews. Of the eight pairs that conducted more than 10 full-text reviews, three pairs demonstrated substantial agreement with Cohen's Kappa values of 0.628, 0.622, and 0.859. One pair showed moderate agreement with a value of 0.515, while three pairs indicated fair agreement, with values of 0.348, 0.322, and 0.294 respectively. This range of agreement levels may underscore the differing perspectives and assessments within reviewer pairs, potentially due to challenges in interpreting the review's inclusion and exclusion criteria.

Finally, we assessed the quality of the 56 included studies, regarding sequence generation, allocation concealment, blinding of participants and personnel, and blinding of outcome assessment. For each item the quality was assessed by 'high', 'low' or 'uncertain'. At least two of the authors made the quality assessment and any conflicts were discussed in the group.

Analyses

Due to heterogeneity of included studies in intervention types, we conducted a narrative synthesis to summarize the findings. As a part of this synthesis, we extracted and analyzed the characteristics of the included studies, considering study design, intervention type, control condition, outcomes measures and effects. The outcome measures were further categorized into child maltreatment, child behaviors and/or parental practices, and the reported effects were classified as positive, neutral, or negative. Relationships between the categories, such as the impact of interventions on different types of outcomes, were examined and analyzed. Throughout this process, we adhered to the guidelines set forth by PRISMA (Page et al., 2021).

Results

A total of 3221 studies were initially identified through the literature search, after eliminating duplicates. The study selection process is shown in Fig. 1, following the PRISMA flow diagram. The primary reasons for excluding full-text articles were

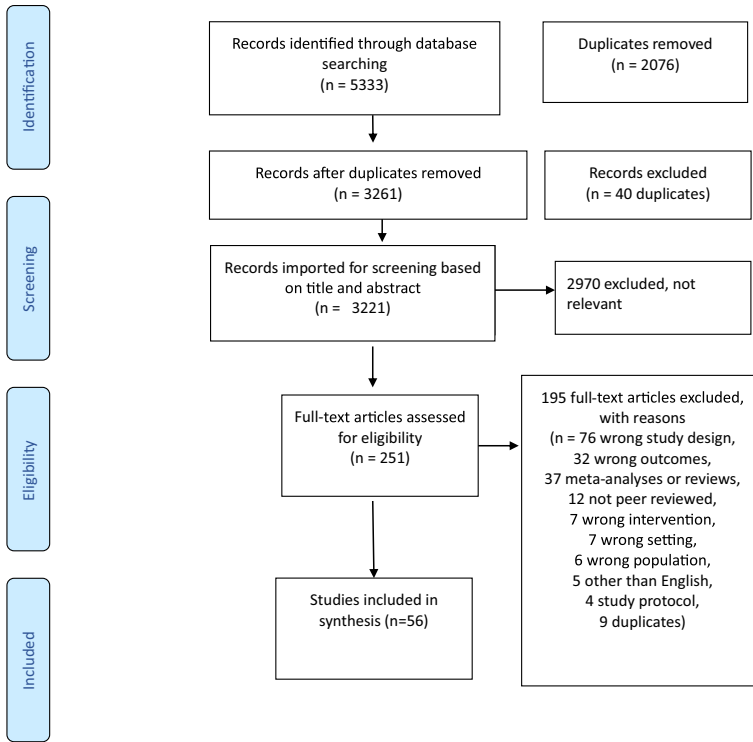


Fig. 1 PRISMA flow chart for the systematic review

related to invalid study designs and outcomes that did not meet the inclusion criteria. Following a thorough screening process, 56 studies were deemed eligible and included in the synthesis. We described the included studies in the Appendix A: Participants, experimental conditions, measured outcomes, and main findings of the 56 included studies, retrievable as Supplementary Material to this article.

Study Characteristics

The 56 included studies encompassed various publication years, with four published in 2016, seven in 2017, nine in 2018, 10 in 2019, 15 in 2020, and 11 in 2021. In total, these studies involved 27,372 study participants, including parents, mothers, fathers, children, or families. More specifically, in 31 of the studies the participants were categorized as at-risk parents or families, in eight studies, as maltreating parents or families, and in 17 studies the participants were recruited among parts of the population, for instance, among first-time mothers. The study with the lowest number of participants included 28, while the study with the highest number involved 4873 participants.

Intervention Type

The 56 studies evaluated the effectiveness of 49 distinct interventions. Among these publications, four specifically assessed the effectiveness of the Nurse Family Partnership (NFP) program, with two of them originating from the same trial. Additionally, three publications examined the effectiveness of SafeCare, while two publications assessed the effectiveness of Healthy Families Massachusetts. Furthermore, two publications reported on the effectiveness of Parent–Child Interaction Therapy.

Thirteen of the studies evaluated home visiting programs, where the intervention took place in the participants' homes. Examples of these interventions include Nurse Family Partnership, *Minding the Baby* and the *Safe Care Dad* intervention. Another 13 interventions were educational, aiming to educate parents on child safety, nutrition and children's social skills and needs. Twelve studies involved case management or enhancements to existing social or child welfare services. Examples of these interventions were *Teen-tot* services, *Family Group Conferences*, and the *Healthy Families Programs*. In nine studies, the intervention was web-based or utilized video feedback. This category comprised seven interventions involving filming of parents and/or children, followed by feedback based on their behavior. Additionally, it included two interventions wherein the parents either watched videos online or engaged in interactive training.

Among the interventions evaluated, five of them incorporated multiple elements, such as combining home visiting and educational components within the intervention.

Meanwhile we categorized four interventions as therapeutic interventions, including examples like cognitive behavioral therapy and mindfulness. However, it is important to note that other interventions also encompassed therapeutic elements. For instance, some home visiting or video feedback interventions, like parent child interaction therapy, could also be considered therapeutic. Additionally, the duration of these interventions varied substantially, ranging from a few weeks to as long as 24 months.

Design and Control Condition

Of the studies included in the analysis, five were cluster-randomized while 51 were individually randomized. The control conditions varied across the studies, with the majority (34) having services as usual as the control condition. In most cases, this involved ordinary child welfare or social services, which differed across the included countries. In 16 of the studies, the control condition constituted another intervention, ranging from a booklet with additional information to comprehensive interventions. Furthermore, six studies employed a waiting list control design, wherein the participants in the control group were offered the intervention after the follow-up measurements had been assessed.

Outcome Measures

Most of the included studies employed a diverse range of outcome measures to assess various aspects related to child maltreatment. These measures encompassed

child welfare reports and indicators of physical or psychological abuse. In addition, several studies assessed factors that may serve as mediators for reducing child maltreatment, such as parental practices and child behavior.

Specifically, 31 studies utilized direct measures of child maltreatment, which often included child maltreatment reports, such as child welfare case reviews or out-of-home placements. Furthermore, 38 studies employed parental measures specifically targeting parental practices, employing metrics such as PRF (Parental reflective functioning), PSI (Parenting Stress Index) or PCA (Parenting capacity assessment). It is worth noting that parental practices were frequently examined in conjunction with measures on child behavior outcomes, thus 14 studies utilized measures such as CBCL (Child Behavior Checklist) or BCAP (Risk Abuse Scale) to assess outcomes such as child behavior difficulties and child development. Additionally, three studies employed other diverse outcomes, such as smoking habits, pregnancies, or family income.

Effects and Effect Sizes

We conducted a categorization of the studies based on the documented effectiveness of the interventions, whether the effects were positive, negative or if no substantial effects were reported. Of the 56 studies analyzed, 42 reported significantly positive effects on one or multiple of the measured outcomes, while 14 did not report significant effects. Nevertheless, it is important to note that only 15 of the 56 studies reported positive and significant effects on direct measures of child maltreatment, as measured by a decrease in child abuse and maltreatment reports. Additionally, two of the 56 studies reported less child welfare involvement as a favorable effect of the intervention.

We assessed all the effect sizes listed in the Appendix A (Supplementary Material) that were reported as statistically significant ($p < 0.05$). Of the 56 studies reviewed, 21 did not report standardized effect sizes. The remaining studies, however, provided a range of effect size measures, including Cohens d , η_p^2 , OR (Odds Ratio), HR (Hazard Ratio) and IRR (Incidence Rate Ratio). Cohens d and OR emerged as the most frequently utilized effect size measures.

Of the 35 studies that reported standardized effect sizes, Lachman et al. (2017), Lefever et al. (2017), Valentino et al. (2019), and Dijkstra et al. (2019) stand out for reporting the largest effect sizes. Of these studies, Lachman et al. (2017) showed a moderate treatment effect of the Sinovuyo Caring Families Program in increasing positive parenting ($d = 0.63$), child-led play ($d = 0.57$), and a moderate negative effect on positive child behavior ($d = -0.56$), while Lefever et al. (2017) showed that a Parent-child interaction intervention improved parent-child interactions ($d = 0.68$), parenting ($d = 0.35$), and child cooperative behavior ($d = 0.38$). Accordingly, Valentino et al. (2019) demonstrated improvements of Reminiscing and Emotion training in maternal elaboration ($d = 0.56$, $d = 0.90$, $d = 1.16$ and $d = 0.49$) and sensitive guidance ($d = 0.70$, $d = 0.68$, $d = 0.57$) and for children, effects on memory contributions ($d = 0.65$) and emotion knowledge ($d = 0.58$). Finally, Dijkstra et al. (2019) showed that Family Group Conferences led to a higher rate of out-of-home placements (OR = 7.55) and a shorter duration of child welfare involvement ($d = -0.54$).

Overall the Appendix A (Supplementary Material) presents a diverse array of interventions and their effects on various outcomes related to child maltreatment and parenting. It underscores the need for standardized reporting of effect sizes and emphasizes the complexity of this field, where different interventions may have different impacts on different aspects of child and parental well-being. Also, it was difficult to pinpoint exactly what is typical for the most successful interventions, however, they seem mainly to focus on training in parenting skills. This involves teaching parents different methods to improve how they interact and connect with their children. Although each program is unique in its approach, the overarching goal appears to be enhancing the parents' abilities to foster better parent–child relationships.

Quality Assessments of Included Studies

We assessed the quality of the 56 included studies regarding sequence generation, allocation concealment, blinding of participants and personnel, and blinding of outcome assessment. Table 1 demonstrates the distribution of the studies into 'high', 'low' or 'uncertain' on each quality assessment criteria. High-quality studies stand out due to their rigorous methodological standards. They ensure unbiased participant allocation through robust randomization procedures and prevent bias with effective allocation concealment. Comprehensive blinding keeps group assignments hidden from participants and personnel, reducing biases in performance and outcome evaluation. High-quality studies also emphasize the blinding of outcome assessments (Simera et al., 2010).

Of the 56 included studies, only four were categorized as high quality across all evaluated parameters. This highlights the challenge in achieving methodological rigor in important aspects of a study, underscoring the importance of continual improvement in research practices. Also, the number of 'uncertain' was high. Further, Table 1 shows that a high number of studies (24) had low quality of blinding of participants and personnel. Looking into specific studies, Sierau et al. (2016), Cala Cala et al. (2020), Villodas et al. (2021), and Putnam-Hornstein et al. (2021), distinguished themselves with a 'High Quality Count' of 4 of the 4 included quality criteria. Additionally, six studies—O'Neill et al. (2020), Lachman et al. (2020), Ondersma et al. (2017), Lachman et al. (2017), Hall et al. (2021), and Francis and Baker-Henningham (2021)—each achieved a 'High Quality Count' of 3. Generally, newer studies tend to have higher quality ratings, indicating a potential improvement in research methodologies and adherence to rigorous standards over time. Three of the four studies with a 'High Quality Count' of 4 were published in 2020

Table 1 Quality assessment summary of the 56 included studies

Quality	Sequence generation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment
High quality	22	26	10	15
Low quality	9	10	24	17
Uncertain quality	25	20	22	24

or later. Four of the six studies with a 'High Quality Count' of 3 were published in 2020 or later. This trend could be attributed to the evolving nature of research practices, where more recent studies incorporate advanced methodologies, better blinding techniques, and more effective management of biases.

Discussion

To provide an up-to-date synthesis of recent evidence we conducted a systematic review of interventions with the goal of alleviating or preventing child maltreatment. The search strategy resulted in 3221 studies, of which 56 were included in the final synthesis of evidence. We classified the results of the systematic review by intervention type, control condition, measured outcomes, and main findings. We also included effect sizes when applicable and assessed the quality of the included studies.

Overall, this systematic review showed that interventions to prevent child maltreatment mainly encompass different measures and strategies to improve parenting practices. Our review further demonstrates that some interventions were evaluated in several studies, such as Nurse Family Partnership and Parent–Child Interaction Therapy. Most studies measured effects on parental practices as a proxy for child maltreatment, while fewer studies measured effects on child behavior or used child maltreatment records for their assessments. Hence, an important finding in this review is that although 42 of 56 of the studies reported positive effects of the interventions on one or several outcomes, only 15 of them reported positive effects on child maltreatment, when measured through child abuse or child maltreatment records. Incorporating both objective measures, such as case report reviews, and subjective measures, such as self-reports, is recommended to enhance the accuracy in documenting experiences of child maltreatment (Negriff et al., 2017).

Notably, the interventions identified in this review illustrate that approaches to prevent child maltreatment varied widely in terms of intervention type and intensity (length of intervention, participants involved and delivery). Also, how precisely the interventions were described varied, and only a minority of the studies used standardized approaches, e.g., TiDier for intervention descriptions. Nearly one-third of the studies did not report effect sizes, and among those that reported, there was a notable variation in the types of effect sizes presented. Additionally, only a few studies met the assessed quality criteria. These results show the importance of further ensuring the quality of conducted studies. Emphasis should be placed on transparency of describing intervention contents and outcomes, and standardization of reported effect sizes.

Measuring child maltreatment poses several challenges due to its complex and sensitive nature. Child maltreatment often occurs within the confines of the family, and many instances go unreported or undetected. Victims may fear retaliation or face barriers in disclosing abuse due to shame, guilt, or loyalty to the abuser (Morrison et al., 2018; Tener, 2018). Parents may also be reluctant to disclose having committed some forms of child maltreatment. Additionally, some forms of maltreatment, such as emotional abuse and neglect, may leave no visible physical signs, making them harder to identify and report. Further, child maltreatment

encompasses various forms (physical, emotional, sexual abuse, neglect) that often coexist and overlap. Additionally, different types of maltreatment can have interactive and cumulative effects on a child's well-being. Therefore, studying child maltreatment poses challenges as researchers must meticulously examine outcome measures and determine which dimensions of child maltreatment the utilized instruments can effectively capture (Fallon et al., 2010).

The fact that parental practices were the most common outcome measured, and the outcome that positive intervention effects are most often reported on, show us that we still need more studies that directly examine interventions aiming to reduce child maltreatment. One explanation for studying mediating effects, for instance through parental practices, might be that it is difficult to carry out RCTs of interventions directly aiming to prevent child maltreatment due to practical and ethical challenges. For example, withholding interventions from control groups and recruiting participants might pose a challenge.

Limitations

Due to heterogeneity of interventions and outcomes, this study is a narrative synthesis, and we did not conduct a meta-analysis of the magnitude of effects. Although we carefully categorized the studies, it is important to note that in some cases the categorization was difficult and in several of the categories, such as regarding outcome measures, the studies were not mutually exclusive. It is crucial to highlight that our inter-rater reliability assessments revealed varying agreement levels, which also may mirror the diversity of the studies included, thus underscoring the challenges in evaluating them. Further, we did not have sufficient data to report the inter-rater reliability for the quality assessments.

The Appendix A (Supplementary Material) includes effect sizes; however, these measurements alone do not ascertain the statistical significance of each intervention type. As such, the Table cannot be used to definitively compare the relative effectiveness of the various interventions, nor can it determine whether some interventions are more effective than others. Also, we did not evaluate the success of implementation in our review, although for instance the meta-analyses by Casillas et al. (2016) have demonstrated that implementation factors such as training, supervision and fidelity monitoring has a significant effect on the outcomes of these type of interventions.

Conclusion

In conclusion, this systematic review synthesized recent evidence on interventions to prevent child maltreatment. Out of 3,221 initial studies, 56 were included in the final analysis. The review revealed that interventions employ diverse measures and strategies to address child maltreatment mainly through improved parenting practices, with variations in intervention type and intensity. This review clearly indicates a variation in the quality of the included studies, emphasizing the need for a cautious interpretation, and particularly comparison of their findings. However, while positive effects were reported in 42 of the studies, only 15 showed positive effects

on child maltreatment, measured through abuse or maltreatment records. Challenges in measuring child maltreatment include its complex nature, underreporting, and difficulties in detecting certain forms of abuse. Ethical and practical challenges hinder the execution of randomized controlled trials in this field. Further research is required to develop interventions that successfully measure and reduce child maltreatment.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s42448-024-00196-x>.

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Data Availability Data used for this review is available upon request.

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