JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Primary Care Interventions to Prevent Child Maltreatment US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

IMPORTANCE Child maltreatment, which includes child abuse and neglect, can have profound effects on health, development, survival, and well-being throughout childhood and adulthood. The prevalence of child maltreatment in the US is uncertain and likely underestimated. In 2021, an estimated 600 000 children were identified by Child Protective Services as experiencing abuse or neglect and an estimated 1820 children died of abuse and neglect.

OBJECTIVE The US Preventive Services Task Force (USPSTF) commissioned a systematic review to evaluate benefits and harms of primary care-feasible or referable behavioral counseling interventions to prevent child maltreatment in children and adolescents younger than 18 years without signs or symptoms of maltreatment.

POPULATION Children and adolescents younger than 18 years who do not have signs or symptoms of or known exposure to maltreatment.

EVIDENCE ASSESSMENT The USPSTF concludes that the evidence is insufficient to determine the balance of benefits and harms of primary care interventions to prevent child maltreatment in children and adolescents younger than 18 years without signs or symptoms of or known exposure to maltreatment.

RECOMMENDATION The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment. (I statement)

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Summary of Recommendation

Population	Recommendation	Grade
Children and adolescents younger than 18 y without signs and symptoms of or known exposure to maltreatment	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment.	I

USPSTF indicates US Preventive Services Task Force.

See the Summary of Recommendation figure.

Preamble

The US Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without obvious related signs or symptoms to improve the health of people nationwide.

It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision-making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

The USPSTF is committed to mitigating the health inequities that prevent many people from fully benefiting from preventive services. Systemic or structural racism results in policies and practices, including health care delivery, that can lead to inequities in health. The USPSTF recognizes that race, ethnicity, and gender are all social rather

Table 1. Summary of USPSTF Rationale

Rationale	Assessment
Benefits of preventive interventions	The USPSTF found inadequate evidence on interventions that are feasible in or referrable from primary care and their effectiveness to prevent maltreatment among children and adolescents who do not already have signs or symptoms of such maltreatment. Evidence of benefit on child maltreatment outcomes is limited and inconsistent.
Harms of preventive interventions	The USPSTF found inadequate evidence to assess the harms of interventions that are feasible in or referrable from primary care to prevent child maltreatment.
USPSTF assessment	Evidence on interventions to prevent child maltreatment is limited and results are inconsistent; therefore, the USPSTF concludes that the evidence is insufficient to determine the balance of benefits and harms of primary care interventions to prevent child maltreatment in children and adolescents younger than 18 y.

Abbreviation: USPSTF, US Preventive Services Task Force.

than biological constructs. However, they are also often important predictors of health risk. The USPSTF is committed to helping reverse the negative impacts of systemic and structural racism, genderbased discrimination, bias, and other sources of health inequities, and their effects on health, throughout its work.

Importance

Child maltreatment, which includes child abuse and neglect, can have profound effects on health, development, survival, and well-being throughout childhood and adulthood. ^{1,2} The prevalence of child maltreatment in the US is uncertain and likely underestimated. ¹ In 2021, an estimated 600 000 children were identified by Child Protective Services (CPS) as experiencing abuse or neglect and an estimated 1820 children died of abuse and neglect. ³

USPSTF Assessment of Magnitude of Net Benefit

Evidence on interventions to prevent child maltreatment is limited and results are inconsistent; therefore, the US Preventive Services Task Force (USPSTF) concludes that the **evidence** is **insufficient** to determine the balance of benefits and harms of primary care interventions to prevent child maltreatment in children and adolescents younger than 18 years without signs or symptoms of or known exposure to maltreatment.

See Table 1 for more information on the USPSTF recommendation rationale and assessment and the eFigure in the Supplement for information on the recommendation grade. See the Figure for a summary of the recommendation for clinicians. For more details on the methods the USPSTF uses to determine the net benefit, see the USPSTF Procedure Manual.⁴

Practice Considerations

Patient Population Under Consideration

This recommendation applies to children and adolescents younger than 18 years who do not have signs or symptoms of or known exposure to maltreatment.

Definitions

Child maltreatment refers to any action, series of actions, or lack of action resulting in harm, potential harm, or threat of harm to children and adolescents younger than 18 years. 5 Child maltreatment

may refer to abuse or neglect by a parent, caregiver, or anyone in the context of a "relationship of responsibility, trust, or power." For this recommendation statement, child abuse includes, but is not limited to, physical abuse, sexual abuse, and psychological or emotional abuse. Folild abuse refers to words or actions that cause harm, potential harm, or threat of harm to a child by a parent, caregiver, or person in a custodial role. Child neglect refers to failure to meet a "child's basic physical, emotional, or educational needs or protect a child from harm or potential harm." 5,6

Suggestions for Practice Regarding the I Statement

Potential Preventable Burden

Child maltreatment affects children of all ages and racial, ethnic, and socioeconomic backgrounds. Of the estimated 600 000 youth experiencing abuse and neglect (per 2021 CPS reports), most had experienced neglect (76%), and many experienced physical abuse (16%), sexual abuse (10%), and sex trafficking (0.2%). Of the more than 1800 children who died of child maltreatment in 2021, most had experienced neglect (78%), and nearly half experienced physical abuse (43%) alone or in combination with another type of maltreatment (eg, neglect and psychological maltreatment). Young children are most vulnerable to child maltreatment and death. About one-fourth of maltreatment victims (28%) are children between birth and age 2 years, and children younger than 3 years comprise almost two-thirds (66%) of all child fatalities.

A National Incidence Study of Child Abuse and Neglect report includes maltreatment estimates for youth investigated by CPS and for youth not reported to CPS, or not investigated by CPS yet recognized as maltreated. ^{1,7} In its latest report from 2005-2006, 1 in every 58 children in the US experienced maltreatment. ⁷ Most experienced neglect (61%), while almost half (44%) experienced abuse. ⁷ Of children who were abused, most experienced physical abuse (58%), but also emotional abuse (27%) or sexual abuse (24%). ⁷ More recent reports suggest child maltreatment prevalence is more common. According to the National Survey of Children's Exposure to Violence report from 2013-2014, which obtains prevalence and incidence estimates of a wide range of childhood violence, crime, and abuse through telephone interviews of children and adolescents younger than 18 years, an estimated 1 in 7 US children experienced maltreatment. ^{8,9}

Potential Harms

The USPSTF found limited evidence on the harms associated with interventions to prevent child maltreatment. Some evidence suggests that participation in interventions could increase the likelihood

Figure. Clinician Summary: Primary Care Interventions to Prevent Child Maltreatment

What does the USPSTF recommend?	For children and adolescents younger than 18 years without signs and symptoms of or known exposure to maltreatment: The evidence is insufficient to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment. Grade: I statement
To whom does this recommendation apply?	This recommendation applies to children and adolescents younger than 18 years who do not have signs or symptoms of or known exposure to maltreatment.
What's new?	This recommendation is consistent with the previous 2018 recommendation statement.
How to implement this recommendation?	After careful review of the evidence, the USPSTF found insufficient evidence to recommend for or against primary care interventions to prevent child maltreatment.
	This recommendation does not apply to children or adolescents with signs or symptoms of maltreatment. Children with signs or symptoms suggestive of maltreatment should be assessed and reported according to the applicable state laws.
	Multiple interventions to prevent child maltreatment have been studied, including primary care programs designed to identify youth at increased risk for maltreatment who may benefit from parent education, referral to community resources, approaches to increase the use of positive discipline strategies, and psychotherapy to improve caregivers' coping skills and strategies to strengthen the parent-child relationship.
	Clinicians should use their clinical judgment when deciding whether and when to provide interventions to help prevent child maltreatment in children without signs or symptoms.
What additional information should clinicians know about this recommendation?	Although the USPSTF found insufficient evidence to assess the benefits and harms of preventing maltreatment among children without signs or symptoms of maltreatment, this recommendation does not assess the effectiveness of interventions (eg, home visitation programs) for other outcomes (eg, improving child and family well-being).
this recommendation:	Child maltreatment refers to any action, series of actions, or lack of action resulting in harm, potential harm, or threat of harm to children and adolescents younger than 18 years.
	Child maltreatment may refer to abuse or neglect by a parent, caregiver, or anyone in the context of a "relationship of responsibility, trust, or power."
	• For this recommendation statement, child abuse includes, but is not limited to, physical abuse, sexual abuse, and psychological or emotional abuse.
Why is this recommendation and topic important?	Child maltreatment, which includes child abuse and neglect, can have profound effects on health, development, survival, and well-being throughout childhood and adulthood.
and topic important.	• In 2021, an estimated 600 000 children were identified by Child Protective Services as having experienced abuse or neglect and an estimated 1820 children died of abuse and neglect.
	Child maltreatment affects children of all ages and racial, ethnic, and socioeconomic backgrounds.
	 Given pervasive racial and ethnic disparities in child maltreatment reporting, investigation, and placement in the child welfare system, biases in identification of child maltreatment may disproportionately disadvantage Black, Hispanic, and Native American/Alaska Native families.
What are other relevant USPSTF recommendations?	The USPSTF has a recommendation statement on screening for intimate partner violence and abuse of older and vulnerable adults.
What are additional tools and resources?	The Centers for Disease Control and Prevention's report "Preventing Child Abuse and Neglect: A Technical Package for Policy, Norm, and Programmatic Activities" offers a group of strategies based on best available evidence to assist in prevention of child abuse and neglect (https://www.cdc.gov/violenceprevention/pdf/CAN-Prevention-Technical-Package.pdf).
	The Centers for Disease Control and Prevention also offers "Adverse Childhood Experiences (ACEs) Prevention Resource for Action: A Compilation of the Best Available Evidence," a report on the best evidence to prevent adverse childhood experiences (https://www.cdc.gov/violenceprevention/pdf/ACEs-Prevention-Resource_508.pdf).
	The US Department of Health and Human Services developed a "Prevention Resource Guide" to support and promote family well-being and prevention of child maltreatment (https://www.childwelfare.gov/resources/20232024-prevention-resource-guide/). The Department also offers publications and additional resources that could be helpful to primary care clinicians (https://www.childwelfare.gov).
Where to read the full recommendation statement?	Visit the USPSTF website (https://www.uspreventiveservicestaskforce.org/) or the JAMA website (https://jamanetwork.com/collections/44068/united-states-preventive-services-task-force) to read the full recommendation statement. This includes more details on the rationale of the recommendation, including benefits and harms; supporting evidence; and recommendations of others.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision-making to the specific patient or situation.

of being reported to child welfare agencies. Given pervasive racial and ethnic disparities in child maltreatment reporting, investigation, and placement in the child welfare system, biases in identification of child maltreatment may disproportionately disadvantage Black, Hispanic, and Native American/Alaska Native families. These

disadvantages may be related to complex intersections of factors, including racism, race, low socioeconomic status, living in neighborhoods of low socioeconomic status, and increased exposure to social service agencies and law enforcement contributing to increased likelihood of being reported for child maltreatment.¹

Additional potential harms of preventive interventions include social stigma and effects on family functioning and dynamics.

Current Practice

Identification | Due to the recommended schedule of periodic health assessments and relationship with families, primary care clinicians are uniquely positioned to identify child maltreatment. Because maltreatment is rarely witnessed by persons other than a child and perpetrator, and there is no single test to confirm abuse or neglect, identification and diagnosis of child maltreatment can be challenging. ¹

Risk assessment instruments are designed to assist in identifying youth for whom preventive interventions might be indicated. However, the USPSTF found limited and inconsistent evidence on the validity and reliability of risk assessment instruments. There is no gold standard for these instruments; measures to validate instruments (eg, CPS reports) are imprecise and likely overreport or underreport true child maltreatment. A majority of risk assessment instruments are designed for emergency department or hospital setting use. ¹ These instruments appear more accurate in identifying children at risk for maltreatment than instruments designed for use in the primary care or home setting. ¹ Instruments that do not depend on clinician judgement (eg, instruments based on relationships between risk factors and maltreatment rather than clinician perception of parental practices) appear better at predicting onset of maltreatment than instruments based primarily on the judgement of clinicians.1

Reporting | Children with signs or symptoms suggestive of maltreatment should be assessed and reported according to the applicable state laws.

Clinicians tend to disproportionately report abuse among children from racial and ethnic minority groups compared with White children. ^{1,10,11} In addition, some studies demonstrate more missed cases of maltreatment in White children. ¹ Native American/Alaska Native ¹² youth are reported to CPS at higher rates than their representation in the population. ¹ Hispanic youth are overrepresented in child maltreatment reports in some US states and underrepresented in others compared with their representation in the population. ¹ Sources of these inequities are complex and likely include racism resulting in subjectivity, inconsistency, and clinician bias ¹³⁻¹⁵ in reporting child maltreatment. ¹ Social factors (eg, socioeconomic status ¹⁶ or insurance type) may be associated with clinician decisions to report child maltreatment. ^{1,14}

Diagnosis | Assessment for possible physical abuse may include a comprehensive medical and event history, physical examination, and further diagnostic workup (eg., imaging or laboratory testing) as needed. 1.17 Variations in practice and clinician bias may contribute to missed diagnoses, which has significant consequences for youth; up to one-half of children (39%-50%) with unrecognized abuse sustain additional abuse-associated injuries within 1 year. 1 Social factors (eg., socioeconomic status 16 or insurance type) may intersect with racism to affect clinician decisions to pursue diagnostic testing for child maltreatment. 1 In a study of abusive head trauma, abuse appeared more likely to be unrecognized and misdiagnosed in White children younger than 3 years living with a mother and father compared with children of "minority races" or children who live in house-

holds in which both parents did not live together. Levidence suggests that use of clear and consistent diagnostic guidelines may reduce variations in medical practice and racial disparities. In a study evaluating the effects of guideline implementation on racial and socioeconomic disparities, after implementation of a protocol recommending all children younger than 1 year with unwitnessed head trauma receive a skeletal survey, racial disparities declined. Prior to implementation of the protocol, Black children underwent more skeletal surveys than White children (91% vs 69%; P = .10); after protocol implementation, skeletal survey differences were not statistically significant (92% of Black children vs 85% of White children; P = 1.0). Lib

Additional Tools and Resources

The Centers for Disease Control and Prevention report "Preventing Child Abuse and Neglect: A Technical Package for Policy, Norm, and Programmatic Activities" offers a group of strategies based on best available evidence to assist in prevention of child abuse and neglect (https://www.cdc.gov/violenceprevention/pdf/CAN-Prevention-Technical-Package.pdf). The Centers for Disease Control and Prevention also offers "Adverse Childhood Experiences (ACEs) Prevention Resource for Action: A Compilation of the Best Available Evidence," a report on the best evidence to prevent adverse childhood experiences (https://www.cdc.gov/violenceprevention/pdf/ACEs-Prevention-Resource_508.pdf).

The US Department of Health and Human Services developed a "Prevention Resource Guide" to support and promote family well-being and prevention of child maltreatment (https://www.childwelfare.gov/resources/20232024-prevention-resourceguide/). The department also offers publications and additional resources that could be helpful to primary care clinicians (https://www.childwelfare.gov/).

Other Related USPSTF Recommendations

The USPSTF has a recommendation statement on screening for intimate partner violence and abuse of older and vulnerable adults¹⁹ (update in progress).

Update of Previous USPSTF Recommendation

In 2018, the USPSTF found insufficient evidence to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment (I statement). ²⁰ This final recommendation statement is consistent with the previous I statement.

Supporting Evidence

Scope of Review

To update its 2018 recommendation, the USPSTF commissioned a systematic review^{1,21} of the evidence on behavioral counseling interventions feasible in or referable from primary care settings to prevent child maltreatment in children and adolescents younger than 18 years without signs or symptoms of maltreatment. The review focused on interventions to prevent abuse or neglect from occurring and therefore was limited to studies in which the majority (>50%) of children had no previous reports of maltreatment. This

scope is similar to that of the prior systematic review. In alignment with the USPSTF's commitment to improving health equity, the evidence review included key questions evaluating the effectiveness of interventions in certain populations and contextual questions on the drivers behind and approaches to address disparities related to child maltreatment.

Interventions

Multiple interventions to prevent child maltreatment have been studied, including primary care programs designed to identify youth at increased risk for maltreatment who may benefit from parent education, referral to community resources, approaches to increase the use of positive discipline strategies, and psychotherapy to improve caregivers' coping skills and strategies to strengthen the parentchild relationship. 1,22 Interventions commonly address social determinants of health (eg, economic stability and health care access) and include a home visiting component. Some evidence suggests that adverse social determinants of health (eg, low socioeconomic status and food or housing insecurity) may increase risk for child maltreatment. 1,23 The USPSTF considered whether interventions to prevent child maltreatment improved measures of social determinants of health and found inconsistent overall results. However, in populations with increased socioeconomic needs, interventions may improve social determinants of health. Additional evidence is needed to clarify potential linkages between improvements in social determinants of health and child maltreatment prevention.¹ Although the USPSTF found insufficient evidence to assess the benefits and harms of interventions to prevent maltreatment among children without signs or symptoms of maltreatment, this recommendation does not assess the effectiveness of interventions (eg, home visitation programs) for other outcomes (eg, improving child and family well-being).

Benefits of Counseling Interventions

The USPSTF reviewed evidence on the benefits of behavioral counseling interventions to prevent child maltreatment from 25 trials of more than 14 000 participants. 1,21 Of the included randomized clinical trials, most studies (22) assessed interventions with a home visiting component.^{1,21} Generally, interventions enrolled participants during the prenatal period or soon after birth, included clinical professionals (eg, nurses), and compared interventions with usual care. 1,21 Outcomes were characterized as direct or intermediate (proxy) measures of child maltreatment. 1,21 Direct measures included direct evidence of physical, sexual, or emotional abuse or neglect (eg, reports to CPS or removal of the child from the home).^{1,21} Intermediate measures included injuries with a high specificity of abuse, visits to the emergency department (ED) or hospital, and failure to provide for the child's medical needs. 1,21 Interpretation of some outcomes was unclear; for example, rates of ED visits or hospitalizations could reflect changes in health care access associated with the interventions rather than rates of maltreatment.^{1,21} To keep the intended scope focused on evidence for making a recommendation on child maltreatment, all intervention studies were required to report direct or intermediate measures of abuse. 1,21 If direct or intermediate measures of abuse were reported, other measures, including behavioral, developmental, emotional, mental, and physical health, as well as well-being and mortality, were also evaluated. 1,21

Direct Outcomes

Fifteen trials (n = 8513) evaluated the effectiveness of interventions based on reports to CPS. 1,21 In a pooled analysis of 11 trials (n = 5311) reporting the first follow-up within 1 year after intervention completion, there were no group differences in effectiveness between intervention and control populations (pooled odds ratio, 1.03 [95% CI, 0.84-1.27]; I^2 = 10.2%). 1,21 Four trials could not be pooled due to differences in reported outcome measures. 1,21 Some trials reported additional findings (after the initial follow-up) 6 months to 1 year later and more than 1 year later. 1,21 There were no group differences associated with the intervention in trials reporting supplementary findings 6 months to 1 year after the initial follow-up, and after 1-year follow-up results were mixed; 2 trials reported statistically significant group differences and 2 reported no differences. 1,21

Six trials (n = 3657) evaluated the effectiveness of interventions based on removal of the child from the home. 1,21 In the 5 trials (n = 3336) included in a pooled analysis of results ranging from 12 months to 3 years after intervention, there were no group differences between intervention and control groups (3.9% vs 3.5%; relative risk, 1.06 [95% CI, 0.37-2.99]; I^2 = 49.9%). 1,21 A sixth trial was not included in the pooled analysis due to differences in outcome measures but reported no group differences. 1,21

Three trials (n = 2106) reported outcomes related to specific measures of maltreatment identified from review of public agency documents, results of the Framingham Safety Survey, or based on rates of safeguarding (eg, initial assessment, being identified as a child in need, or child protection conference). 1,21 Findings in these trials yielded inconsistent results. 1 In 1 trial, there were no differences reported in physical abuse (relative risk, 1.45 [95% CI, 0.58-3.62]) or neglect (relative risk, 2.79 [95% CI, 0.98-7.91) between the intervention and control groups. 1,21,24 A second trial reported statistically significant group differences in results from the Framingham Safety Survey on household hazards after the intervention; however, the clinical importance of these results is unclear because the range of the survey's scale was not reported. 1,21 A third trial reported higher rates of safeguarding in the intervention group compared with the control group (adjusted odds ratio, 1.85 [95% CI, 1.02-2.85]).1,21,25

Intermediate Outcomes

Fourteen trials (n = 8180) reported outcomes related to ED visits; generally, fewer visits was interpreted as beneficial. 1,21 Trials evaluating ED visits within 4 years of study enrollment inconsistently demonstrated fewer ED visits. 1,21 Type of outcome measurement (mean difference in ED visits, mean number of all-cause ED visits, or mean number of ED visits for accidents, injuries, and ingestions) and timing of measurement (6 months to more than 4 years after study enrollment) varied substantially across trials, precluding pooling of evidence. 1,21 Two studies found no statistically significant differences in visiting the ED at age 6 months (P = .637 in one study²⁶ and adjusted odds ratio, 1.52 [95% CI, 0.86-2.70] in the other study²⁵). 1,21 In a study reporting mean differences in ED visits for any reason, there were more ED visits in the intervention group compared with the control group (P = .048) at 12 months.^{1,21,26} Two trials reported no statistically significant group differences at 12 or 18 months. 1,21 Of 7 studies reporting findings within 1 to 2 years after enrollment, 3 reported statistically significant reductions in the average number of

Table 2. Research Needs and Gaps in Primary Care Interventions to Prevent Child Maltreatment

To fulfill its mission to improve health by making evidence-based recommendations for preventive services, the USPSTF routinely highlights the most critical evidence gaps for making actionable preventive services recommendations. For the current analytic framework, evidence is needed linking validated risk assessment and primary care-feasible or referrable interventions to direct or intermediate measures of abuse and neglect. Notably, measures of abuse and neglect are prone to underreporting, disproportionality (eg, overrepresentation of Black children and underrepresentation of White children), and bias (eg, recall bias in patient-reported outcomes and surveillance bias in intervention group exposure to opportunities for reporting or diagnosing abuse). Reconceptualizing the linkages between primary care-relevant risk assessment, prevention-based interventions, and standardized, accurate, and unbiased maltreatment outcomes measures is needed. For additional information on research needed to address these evidence gaps, see the table on the USPSTF website (https://www.uspreventiveservicestaskforce.org/home/getfilebytoken/tpsQcTR2sDok_VELXgBHFb).

Evidence gaps on primary care interventions to prevent child maltreatment

Research is needed to help primary care clinicians accurately identify families who might benefit from supportive interventions that may prevent child maltreatment.

- · Research is needed to determine if accuracy of risk assessment tools differs by social factors and race and ethnicity.
- Research is needed to understand the optimal frequency of risk assessment considering chronicity, duration, intermittency, and severity
 of maltreatment.

Studies are needed to evaluate the effectiveness of primary care-feasible or referable preventive interventions designed to reduce exposure to maltreatment, including neglect.

- · Research is needed to determine whether intervention effectiveness or child maltreatment reporting differs by social factors and race and ethnicity.
- Studies evaluating the effectiveness of interventions using more accurate outcome measures that limit bias (eg, surveillance) are needed. Outcome measures could also include those outside the child welfare system (eg, composite measures).
- In addition, consistency in outcome measure definitions, outcome types, and outcome timing across studies is needed.
- Research is needed on the most effective ways to prevent child maltreatment (using more accurate outcome measures), including interventions that address the social determinants of health that can negatively affect families.

Research is needed to determine whether there are unintended harms from risk assessment (eg, stigma or legal risks related to Child Protective Services) and to engagement in preventive interventions (eg, risk of biased reporting for maltreatment)

and to engagement in preventive interventions (eg, risk of biased reporting for maltreatment).

Research is needed to understand whether potential harms differ in children by social factors and race and ethnicity.

all-cause ED visits, while 4 reported no group differences. 1,21 Long-term results (>4 years of follow-up) noted statistically significant reductions in ED visits in 1 of 3 studies. 1,21

Thirteen trials (n = 7475) reported outcomes related to hospitalizations. 1,21 Varying outcome definitions and timing of outcome measurement prevented pooling of study results. 1,21 Statistically significant reductions in number of children with all-cause hospitalizations, average number of hospital days, and rates of admission were demonstrated in a minority of trials. 1,21 Most trials of hospital-related outcomes reported no difference between study groups. 1,21 For several additional measures of child maltreatment (eg, failure to thrive [1 trial; n = 79] and nonaccidental injuries [1 trial; n = 136]), the USPSTF found insufficient evidence to evaluate intervention effectiveness. 1,21

Behavioral, Developmental, Emotional, Mental, and Physical Health and Well-Being

Six trials (n = 5115) reporting internalizing (eg., depression or anxiety) and externalizing (disruptive, aggressive, or delinquent) behavioral outcomes in children yielded mixed results. 1,21 Three of the 6 trials reported statistically significant reductions in reported behaviors, while others reported no group differences. 1,21 Of 5 trials (n = 4439) evaluating social, emotional, and developmental outcomes (eg, sleep issues or dysregulation), none reported group differences. 1,21 Of 4 trials (n = 1638) evaluating outcomes based on the Bayley Scales of Development, 1 reported higher scores in the intervention group, while 3 other trials reported no group differences. 1,21 Three of 5 trials (n = 4542) evaluating other developmental outcomes reported some benefit in study-specific outcomes; however, study construction and outcomes varied substantially and results could not be compared across studies. 1,21 Three trials (n = 3561) evaluating school performance reported no group differences in the percentage of children repeating a grade at age 7 years, grade point averages across reading and math at age 9 years, or special education placements in grades 1 through 3.1,21 Similarly, 2 trials (n = 2818) evaluating school attendance reported few group differences in school absences between intervention and control groups. ^{1,21}

Death

In 6 trials (n = 2900), none of the mortality outcomes reported reached statistical significance.^{1,21} Five trials did report lower (statistically nonsignificant) mortality rates in the intervention group and 1 trial reported higher (statistically nonsignificant) mortality rates in the intervention group.^{1,21} Fortunately, events were rare, despite inclusion of children judged to be at increased risk for infant mortality.¹

Overall, evidence on the effect of interventions did not demonstrate benefit, yielded mixed results, or information was insufficent. The USPSTF also considered intervention effectiveness in specific populations of interest defined by child or caregiver characteristics such as age, developmental age (child), sex, gender identity, race and ethnicity, sociodemographic characteristics (eg, family income), or special health care needs. Generally, evidence in these populations was consistent with that of the general population or too limited to draw comparisons.

Harms of Counseling Interventions

Most trials reported rare harms rather than potential harms, such as stigma, labeling, legal risks, risks of further harm to the child, dissolution of families, or worsening inequities.^{1,21} Two trials (n = 1784)^{25,27} reported miscarriages or terminations of pregnancies; however, these outcomes were unlikely to be related to the intervention in either study.^{1,21} One trial reported miscarriage or termination events prior to intervention participation.^{1,21} A second trial reported that 43% of mothers or children had a serious adverse event (mainly clinical events associated with pregnancy and the infancy period) in the intervention group compared with 38% in the control group (miscarriages/terminations [24 in the intervention group vs 27 in the control group], stillbirth/neonatal/infant death [5 in the intervention group vs 7 in the control group], death of the mother/infant pair [1 in the intervention group vs 0 in

the control group], and adoption of the child [7 in the intervention group vs 7 in the control group]).^{1,21,25}

Response to Public Comment

A draft version of this recommendation statement was posted for public comment on the USPSTF website from August 29, 2023, to September 25, 2023. Some comments suggested that a recommendation focused on screening for protective factors or universal primary prevention approaches addressing social determinants of health to mitigate child maltreatment could be linked to improving health outcomes and promoting health equity. Other comments suggested the USPSTF call for additional research on better risk assessment tools to identify at-risk populations who might best benefit from interventions to prevent child maltreatment. The USPSTF agrees that the identification of broad approaches on this topic could be helpful, particularly to better understand whether identifying at-risk populations or whether addressing certain social determinants of health in the primary care setting could prevent child maltreatment. Several comments shared concerns about potential harms of interventions such as removal of children from families, particularly due to potential for bias in CPS referrals. The USPSTF agrees that potential harms of interventions should be carefully weighed against the benefits prior to a making recommendation. As such, prior to making a recommendation, the USPSTF thoroughly considers evidence of benefits and harms and makes recommendations when supported by sufficient evidence. After careful review, the USPSTF concluded that the evidence was insufficient to make a recommendation for or against interventions to prevent child maltreatment. Several comments appreciated the recognition of the influence of social factors and racial and ethnic disparities in reporting and diagnoses of child maltreatment. In alignment with the USPSTF's commitment to advancing health equity, the

USPSTF considered evidence on existing disparities related to child maltreatment.

Research Needs and Gaps

See **Table 2** for research needs and gaps related to primary care interventions to prevent child maltreatment.

Recommendations of Others

The American Academy of Family Physicians has concluded there is insufficient evidence regarding screening or interventions and offers a list of steps for preventing child maltreatment.²⁸ The American Academy of Pediatrics strongly recommends pediatrician involvement in preventing child maltreatment "through promotion of safe, stable, nurturing relationships and communities."²⁹ Bright Futures, a national initiative led by the American Academy of Pediatrics and supported in part by the US Department of Health and Human Services, Health Resources and Services Administration, and Maternal and Child Health Bureau recommends anticipatory guidance (preventive education and guidance) and screening for social determinants of health for risks (including family or neighborhood violence, food security, or family substance use) and protective factors (emotional security and self-esteem or connectedness with family) during childhood and adolescence.³⁰ The Canadian Task Force on Preventive Health Care recommends home visitation programs to "disadvantaged families" to prevent child maltreatment and recommends against screening, citing the risks of falsepositive results and mislabeling.³¹ The Community Preventive Services Task Force recommends home visitation to high-risk families to prevent child maltreatment.32

ARTICLE INFORMATION

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Author Contributions: Dr Barry had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. The USPSTF members contributed equally to the recommendation statement.

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