

**Behavioral Interventions and Counseling to Prevent  
Child Abuse and Neglect: Systematic Review to  
Update the U.S. Preventive Services Task Force  
Recommendation**

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## Structured Abstract

**Purpose:** To review new evidence on the benefits and harms of behavioral interventions and counseling in health care settings to reduce child abuse and neglect and related health outcomes for the U.S. Preventive Services Task Force.

**Data Sources:** MEDLINE and PsycINFO (January 2002 to June 2012), Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews (second quarter 2012), Scopus, and reference lists were searched for English-language trials of the effectiveness of behavioral interventions and counseling and studies of any design about adverse effects.

**Data Synthesis:** Eleven fair-quality randomized trials of interventions and no studies of adverse effects met inclusion criteria. A trial of risk assessment and interventions for abuse and neglect in pediatric clinics for families with children age 5 years and younger indicated reduced physical assault, Child Protective Services reports, medical care nonadherence, and immunization delay among screened children. Ten trials of early childhood home visitation reported reduced Child Protective Services reports, emergency department visits, hospitalizations, and self-reports of abuse and neglect or improved adherence to immunizations and well-child care, although results were inconsistent.

**Limitations:** Trials were limited by heterogeneity, low adherence, high loss to followup, and lack of standardized measures.

**Conclusions:** Risk assessment and behavioral interventions in pediatric clinics reduced abuse and neglect outcomes for young children. Early childhood home visitation also reduced abuse and neglect, but results were inconsistent. Additional research on interventions to prevent child abuse and neglect is needed.

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# CHAPTER 1. INTRODUCTION

## Purpose of Review and Prior U.S. Preventive Services Task Force Recommendation

This systematic review is an update for the U.S. Preventive Services Task Force (USPSTF) that addresses the effectiveness and adverse effects of behavioral interventions and counseling to prevent child abuse and neglect for children at potentially increased risk. This review focuses on children without obvious signs or symptoms of abuse or neglect who are seen in health care settings. A separate review examines screening women for intimate partner violence and screening for elder abuse.<sup>1,2</sup>

In 2004, based on results of a previous review of screening for abuse and neglect,<sup>3,4</sup> the USPSTF found insufficient evidence to recommend for or against routine screening of parents or guardians for the physical abuse or neglect of children (I statement).<sup>5,6</sup> The USPSTF could not determine the balance between the benefits and harms of screening because of the lack of critical evidence. Limitations included the following:

- Interventions were predominantly home visitation programs that utilized varied and often inadequately described components during the prenatal, postpartum, and early childhood periods. It is unknown whether these models would work in other populations or with older children.
- There were no studies of screening for child abuse and neglect in health care settings that reported health outcomes, including premature death and disability.
- There were no studies of the adverse effects of screening and interventions.
- There was no demonstration of a gold standard screening instrument. Instruments designed to screen for child abuse and neglect had fairly high sensitivity in the few studies evaluating test performance, but they had low specificity. Instruments were primarily directed at pregnant women and lacked testing in other populations, particularly older children in the context of usual health care.
- Studies were conducted in high-risk populations.
- There were no studies of the feasibility of screening procedures and interventions in the primary care setting, including identification of barriers to screening.

## Condition Definition

Child abuse and neglect has been defined from medical as well as legal perspectives. The Centers for Disease Control and Prevention (CDC) recognize four categories of violence, including physical violence, sexual violence, threat of physical or sexual violence, and psychological/emotional abuse.<sup>7</sup> The CDC defines child maltreatment as any act or series of acts of commission or omission by a parent or other caregiver that results in harm, potential for harm, or threat of harm to a child from birth through age 17 years.<sup>8</sup> Child abuse (acts of commission) includes harmful words or overt actions such as physical, sexual, and psychological abuse. Child neglect (acts of omission) includes

the failure to provide for a child's basic physical, emotional, or educational needs or to protect a child from harm or potential harm. This includes failure to provide, such as physical, emotional, medical/dental, or educational neglect, and failure to supervise, such as inadequate supervision or exposure to violent environments.

The 2003 Keeping Children and Families Safe Act amendment to the 1996 Federal Child Abuse Prevention and Treatment Act (CAPTA) (42 U.S.C.A. §5106g) defines child abuse and neglect as any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, or sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm.<sup>9-11</sup> Individual States are required to define child abuse and neglect using the minimum standards in the federal law according to CAPTA; however, State definitions vary.<sup>12</sup>

In 2009, the U.S. Department of Health and Human Services' (DHHS') Administration for Children and Families used the following definitions:

**Physical abuse** is any nonaccidental physical injury to the child and can include striking, kicking, burning, or biting or any action that results in a physical impairment of the child. In most States, the definition of abuse also includes acts or circumstances that threaten the child with harm or create a substantial risk of harm to the child's health or welfare.

**Neglect** is the failure of a parent or other person with responsibility for the child to provide needed food, clothing, shelter, medical care, or supervision such that the child's health, safety, and well-being are threatened. Several States also include failure to educate the child as required by law in their definition of neglect. Seven States specifically define medical neglect as failing to provide any special medical treatment or mental health care needed by the child. In addition, four States define medical neglect as the withholding of medical treatment or nutrition from disabled infants with life-threatening conditions.

**Sexual abuse/exploitation.** All States include sexual abuse in their definitions of child abuse. Some refer in general terms to sexual abuse, while others specify various acts. Sexual exploitation is an element of the definition of sexual abuse in most jurisdictions. Sexual exploitation includes allowing the child to engage in prostitution or in the production of child pornography.

**Emotional/psychological abuse.** Nearly all States include emotional/psychological maltreatment as part of their definitions of abuse or neglect. This is often defined as injury to the psychological capacity or emotional stability of the child, as evidenced by an observable or substantial change in behavior, emotional response, or cognition or as evidenced by anxiety, depression, withdrawal, or aggressive behavior.

**Parental substance abuse** is an element of the definition of child abuse or neglect in some States, including prenatal exposure from the mother's use of an illegal drug or other substance; manufacture of a controlled substance in the presence of a child or on the premises occupied by a child; allowing a child to be present where the chemicals or equipment for the manufacture of controlled substances are used or

stored; selling, distributing, or giving drugs or alcohol to a child; and use of a controlled substance by a caregiver that impairs the caregiver's ability to adequately care for the child.

**Abandonment.** Several States include abandonment in their definition of abuse or neglect. This includes situations when the parent's identity or whereabouts are unknown, the child has been left by the parent in circumstances in which the child suffers serious harm, or the parent has failed to maintain contact with the child or to provide reasonable support for a specified period of time.

Definitions used in child abuse and neglect research are highly variable.<sup>12</sup> The absence of standard operational definitions limits communications, has led to a lack of consensus on the magnitude and distribution of child abuse and neglect, and creates difficulties in determining and collecting accurate measurements.<sup>9,13</sup>

## Prevalence and Burden of Disease

Child Protective Services (CPS), part of the larger Department of Human Services (DHS) that specifically responds to child abuse reports, received 3.3 million referrals representing 6 million children nationally in 2009 (43 referrals per 1,000 children).<sup>11</sup> Of children receiving a CPS investigation, one fifth were found to have been victims of abuse and neglect.<sup>11</sup>

According to the National Child Abuse and Neglect Data System, approximately 695,000 children were victims of child abuse and neglect in 2010, and 1,537 children died.<sup>14</sup> Approximately 78 percent of victims suffered from neglect, 18 percent physical abuse, 9 percent sexual abuse, 8 percent emotional or psychological abuse, and 2 percent medical neglect. In addition, 10 percent of children experienced other types of abuse and neglect, such as abandonment, threats of harm, and congenital drug addiction.<sup>14</sup> Rates of abuse were similar for boys and girls. The majority of deaths from abuse and neglect occurred in very young children (48% age <1 year, 14% age 1 year, 12% age 2 years, 6% age 3 years). An analysis of self-reported abuse and neglect from 15,197 participants in the National Longitudinal Study of Adolescent Health found that 28 percent experienced physical assault, 12 percent physical neglect, 5 percent contact sexual abuse, and 42 percent supervision neglect.<sup>15</sup>

Immediate health consequences of child abuse and neglect include injuries and death related to physical and sexual assault, as well as emotional and behavioral problems.<sup>16,17</sup> Related long-term physical conditions include neurological and musculoskeletal disorders; gastrointestinal problems such as peptic ulcers; metabolic conditions including diabetes; autoimmune disorders;<sup>18,19</sup> obesity;<sup>20,21</sup> chronic pain;<sup>22,23</sup> teen pregnancy and pregnancy complications such as premature contractions, cervical insufficiency, and premature birth;<sup>24</sup> and several disabilities.<sup>25</sup> Chronic mental health conditions include psychosis, anxiety and posttraumatic stress disorder, alcohol and substance abuse, risky sexual behaviors, depression and suicide, eating disorders, attention problems, and personality disorders.<sup>20,26-33</sup>

## Risk Factors/Indicators

Risk factors for child abuse and neglect are wide-ranging, but nonspecific. According to the CDC<sup>34</sup> and additional studies, risk factors include parents' lack of understanding of child development and inadequate parenting skills; parental history of child abuse;<sup>35</sup> substance abuse in the family;<sup>36</sup> young, single,<sup>37</sup> or nonbiological parents; parental thoughts and emotions supportive of maltreatment behaviors; and parental stress and distress, including depression<sup>36</sup> or other mental health conditions. Family risk factors include social isolation;<sup>35</sup> poverty<sup>15,38</sup> and other socioeconomic disadvantage,<sup>35</sup> such as unemployment or lack of education;<sup>15,36</sup> family disorganization, dissolution, and violence, including intimate partner violence (IPV); and poor parent-child relationships. Risk factors for child victimization include age younger than 4 years; disabilities,<sup>11,35,37</sup> developmental delay,<sup>36</sup> or mental retardation; and other conditions that may increase caregiver burden, such as preterm birth, congenital addiction, or admission to the neonatal intensive care unit.<sup>39</sup>

## Rationale for Screening/Screening Strategies

Screening children without obvious signs of abuse and neglect in health care settings could identify children who have experienced abuse and neglect as well as children at risk, and lead to interventions that reduce abuse and neglect and improve health outcomes. However, children, caretakers, perpetrators, or other family members may not self-disclose abuse because of the negative ramifications of doing so. These include involvement of CPS, dissolution of families, legal concerns for the perpetrators, and increased risk of abuse for the child or family, among other reasons. Young children usually are not capable of recognizing abuse or neglect, do not have the verbal skills to describe the abuse, and do not know a trusted individual with whom to confide. Children may want to protect their families or keep them intact, keep abuse secretive due to shame or other reasons, or fear speaking out due to fear of unknown consequences.

## Interventions

Referral to the local CPS agency is the main intervention for responding to child abuse and neglect.<sup>11</sup> CPS may provide preventive services to high-risk families to improve parents' understanding of child development and parenting practices. Other services include family support, child daycare, education and training, information and referral, and assistance with employment and housing.<sup>11</sup> Postinvestigation services for substantiated cases focus on the safety of the child and are based on family assessments. These include in-home family services when the child remains living at home, such as counseling, treatment for mental health problems and substance abuse, and other services, or foster care services when the child needs to be removed from the home and placed with either relatives or others. Court actions may also ensue, including legal actions for custody on behalf of the child.<sup>11</sup>

Most preventive services that target at-risk families are not provided by CPS, which deals with abuse reports. Preventive services include hospital-based maternity case management, community-based home visitation programs, and other models that focus on early childhood. In these programs,

at-risk families are identified during pregnancy or postpartum and supportive services are provided over several months to years. Eligibility criteria for services, types of services, delivery, duration, and effectiveness vary widely.<sup>40</sup> Many of these preventive services are now included in the Patient Protection and Affordable Care Act, which established a Maternal, Infant, and Early Childhood Home Visiting Program, providing \$1.5 billion over 5 years to States to establish home visiting program models for at-risk pregnant women and children from birth to age 5 years.

## Current Clinical Practice

In the United States, all States have laws that require physicians and other health care workers, as well as other professionals who interact with children, to report suspected child abuse and neglect to CPS.<sup>41</sup> In 2009, teachers (17%), law enforcement and legal personnel (16%), and social services staff (11%) reported three fifths of CPS reports, while anonymous sources (9%), other relatives (7%), parents (7%), and friends and neighbors (5%) reported the remaining.<sup>11</sup> CAPTA specifies that children younger than age 3 years with substantiated cases of abuse or neglect must have access to rapid or immediate intervention<sup>10</sup> and legal representation for custodial care.<sup>11</sup>

Identifying abuse or neglect and linking children to these services has been problematic. Pediatricians, family physicians, and other primary care providers are in a unique position to identify children experiencing abuse or neglect during well-child and other visits. However, while pediatricians believe screening for abuse and neglect is one of their important roles,<sup>42</sup> they rarely screen in practice, or screen only in selected cases.<sup>43,44</sup> Barriers to screening include lack of experience, training, and confidence in handling abuse cases.<sup>43,45-47</sup>

## Recommendations of Other Groups

Recommendations of other medical groups are summarized in **Table 1**. In 2010, the American Academy of Pediatrics published a clinical report advocating for the pediatrician's prominent role in the prevention of child abuse and neglect and providing specific guidelines and information on specific risk factors and protective factors.<sup>42</sup> The American Medical Association recommends routine inquiry about child abuse or neglect.<sup>48</sup> Other organizations do not specifically recommend universal screening, but recommend that pediatricians and family practice clinicians remain alert for indications of abuse or neglect<sup>49,50</sup> or recommend screening in pediatric offices for intimate partner and family violence.<sup>51,52</sup> The Canadian Task Force on Preventive Health Care issued various recommendations in 2000 that do not support screening. However, it recommends home visitation for disadvantaged families from the prenatal period through infancy, but not other forms of interventions.<sup>53</sup> Disadvantaged families are defined as first-time mothers with one or more of the following characteristics: younger than age 19 years, single parent status, and low socioeconomic status. The Community Preventive Services Task Force does not recommend for or against screening for child abuse and neglect, but recommends early childhood home visitation interventions.<sup>54</sup>

## CHAPTER 2. METHODS

### Key Questions and Analytic Framework

Based on evidence gaps identified from the previous review,<sup>3,4,56</sup> the USPSTF and Agency for Healthcare Research and Quality (AHRQ) determined the key questions for this update using the methods of the USPSTF.<sup>57</sup> Investigators created an analytic framework incorporating the key questions and outlining the patient populations, interventions, outcomes, and potential adverse effects (**Figure**).

#### Key Questions

1. For children without obvious signs and symptoms of abuse or neglect, but potentially at increased risk, how well do behavioral interventions and counseling initiated in primary care settings reduce exposure to abuse or neglect, physical or mental harms, or mortality?
2. What are the adverse effects of behavioral interventions and counseling to reduce harm from abuse and neglect?

The target population includes children from birth to age 18 years and their caregivers who interact with health care providers in clinical settings where primary care is delivered to children. The review does not include studies of children with signs, symptoms, or complaints of abuse or neglect because children with these findings would undergo evaluations outside the scope of primary prevention recommendations.

The outcomes included in this review incorporate current accepted definitions of child abuse and neglect, an understanding of a continuum of potential outcomes, and acknowledgement that only some outcomes are actually measurable in research studies. Intermediate outcomes, such as referral rates or measures of parent-child bonding, are outside the scope of this review. Based on these considerations, main outcomes include measures of reduced exposure to abuse and neglect (CPS reports, removal of the child from home, and caregiver self-reports of abuse or neglect), measures of health outcomes related to abuse (physical injuries, mortality, emergency department visits, and hospitalizations), and measures of child neglect (adherence with immunizations and well-child visits). For self-reported measures of abuse, we report severe and very severe abuse and harsh parenting (spanking and slapping) directed at infants.

#### Search Strategies

In conjunction with a research librarian, investigators used the National Library of Medicine's medical subject headings keyword nomenclature to search the Cochrane Central Register of Controlled Trials and Cochrane Database of Systematic Reviews through the second quarter of 2012, and MEDLINE and PsycINFO from 2002 to June 2012 for relevant English-language studies, systematic reviews, and meta-analyses. Search strategies are listed in **Appendix A1**. Secondary referencing was done by manually reviewing reference lists of papers and reviewing citations of

key studies using Scopus.

## Study Selection

Investigators developed inclusion and exclusion criteria for abstracts and articles based on the target population, key questions, and outcome measures (**Appendix A2**). Research conducted in the United States or in similar populations who receive services and interventions applicable to medical practice in the United States published in 2003 or later was considered. After an initial review of abstracts, full-text articles were reviewed using additional inclusion criteria. Studies rated poor-quality were excluded. **Appendix A3** shows the results of the literature search and selection process and **Appendix A4** lists excluded studies with reasons for their exclusion.

Randomized, controlled trials (RCTs) of the effectiveness of behavioral interventions and counseling to reduce exposure to abuse or neglect or improve health outcomes were included. Studies were eligible for inclusion if they enrolled children without obvious signs or symptoms of abuse or neglect, used a method to identify families or children at risk that was applicable to primary care, evaluated an intervention that primary care clinicians could access or provide referral to, measured outcomes related to abuse or neglect (specified above), and compared outcomes between intervention and nonintervention groups. All types of CPS reports (confirmed/not confirmed) were included because research indicates no association between substantiation status and behavioral and developmental outcomes.<sup>58</sup> Studies that focused on clinician education, methods to increase screening rates, perceptions and attitudes of physicians and other clinicians, studies of public awareness campaigns or other interventions not applicable to primary care settings, and studies of interventions directed at perpetrators were not included. Studies that reported use of services or referral for services as outcome measures without also reporting abuse or health outcomes were also not included.

Studies of any design were included to describe potential adverse effects of behavioral interventions and counseling. Potential adverse effects include escalating levels of abuse and neglect; false-positive evaluations; adverse consequences as a result of the investigation process; labeling, stigmatizing, and psychological distress; dissolution of families; and legal issues, among others.

## Data Abstraction and Quality Rating

An investigator abstracted data about the study design and setting, participant characteristics, data collection procedures, numbers enrolled and lost to followup, methods of exposure and outcome ascertainment, analytic methods including adjustment for confounders, and outcomes. A second investigator confirmed the accuracy of data. By using predefined criteria developed by the USPSTF (described in **Appendix A5**),<sup>57,59</sup> two investigators rated the quality of studies (good, fair, poor) and resolved discrepancies by consensus. Studies that met basic inclusion criteria but had important design or methodologic flaws that compromised results (i.e., poor-quality rating) were not included in this report.<sup>60-65</sup> The applicability of studies was determined using the PICOTS (population, intervention, comparator, outcomes, timing of outcomes measurement, and setting) format, adapted to this topic.<sup>66</sup>

## Data Synthesis

We assessed the aggregate quality of the body of evidence for each key question (good, fair, poor) using methods developed by the USPSTF based on the number, quality, and size of studies and consistency of results between studies.<sup>57</sup> Studies were considered consistent if outcomes were generally in the same direction of effect and ranges of effect sizes were narrow. No meta-analysis was performed because of the heterogeneity of the participants, interventions, outcome measurements, and followup periods, and because data were provided and analyzed in a variety of ways.

## External Review

The draft report was reviewed by content experts, USPSTF members, AHRQ Project Officers, and collaborative partners (**Appendix A6**).

## CHAPTER 3. RESULTS

### **Key Question 1. For Children Without Obvious Signs and Symptoms of Abuse or Neglect, but Potentially at Increased Risk, How Well Do Behavioral Interventions and Counseling Initiated in Primary Care Settings Reduce Exposure to Abuse or Neglect, Physical or Mental Harms, or Mortality?**

#### **Summary**

Eleven fair-quality RCTs of interventions published since the previous review met inclusion criteria. One trial of risk assessment and interventions for abuse and neglect was conducted in pediatric clinics for families with children ages 5 years or younger. Results indicated significantly reduced physical assault, CPS reports, medical care nonadherence, and immunization delay among children randomized to screening compared with usual care 3 years after the intervention. Ten trials of early childhood home visitation reported reduced CPS reports, emergency visits, hospitalizations, and self-reports of severe abuse and neglect and improved adherence to immunizations and well-child care. Results were inconsistent across trials for most outcomes. Trials were limited by heterogeneity, low adherence, high loss to followup, and lack of standardized measures.

#### **Evidence**

**Clinic-based intervention trial.** A trial based in a pediatric clinic compared outcomes of children whose parents underwent risk assessment followed by physician and clinic-based social work interventions as needed with outcomes of children receiving usual primary care<sup>67</sup> (**Appendix B1 and B2**). The trial was based on the Safe Environment for Every Kid (SEEK) Model, which includes risk assessment during the course of usual primary care services, physician training in addressing risk factors for abuse and neglect, informational resources for parents and physicians, and social work services for families desiring them. Outcome measures were obtained from CPS reports, children’s medical charts, and parent responses on the Parent-Child Conflict Tactics Scale. Outcome data were collected at baseline and 3 years later.

The trial enrolled 729 participants from university-affiliated pediatric primary care resident continuity clinics serving low-income families in Baltimore. Children ranged from newborn to age 5 years, and most were African American with single mothers receiving Medicaid or State Children’s Health Insurance Programs. Clinics were cluster randomized to either the SEEK Model or usual care based on clinic day of the week. The usual care control group received standard pediatric care and an onsite human services worker with similar responsibilities as the social worker for the intervention group. For those randomized to the intervention group, risk factor assessment was conducted using the Parent Screening Questionnaire, a 20-item self-reported questionnaire of safety issues, including major risk factors for child abuse and neglect, such as parental depression and substance abuse (see **Appendix C1**). For those with positive responses, trained physicians addressed concerns and provided educational materials, treatment, and referrals as needed. A social

worker provided clinic-based interventions on a case-by-case basis (personal communication with Howard Dubowitz, March 3, 2011).<sup>67</sup>

Seventy-six percent of enrolled participants completed the study protocol. Results indicated that while 12 percent of families in both groups were involved with CPS prior to the trial, families in the intervention group had fewer CPS reports than the usual care group up to 44 months after the intervention (13% vs. 19%;  $p=0.03$ ). These findings represent all CPS reports except cases where abuse or neglect were explicitly ruled out. Also, parents in the intervention group reported fewer episodes of severe or very severe physical assault than usual care parents (average weighted Parent-Child Conflict Tactics Scale score, 0.11 vs. 0.33;  $p=0.04$ ), fewer instances of nonadherence to medical care (5% vs. 8%;  $p=0.05$ ), and fewer delays in immunizations (3% vs. 10%;  $p=0.002$ ).

Factors reducing differences between groups include diffusion of the SEEK Model to the control clinics when physicians changed clinic days or communicated with colleagues, similarity of services for intervention and control groups, and surveillance bias that increased detection of abuse and neglect even in the absence of formal risk assessment. The study met criteria for fair quality because loss to followup was >20 percent, analysis was not intention-to-treat or not described, and randomized groups were not similar at followup. Applicability of the trial was limited by enrollment of participants from only one pediatric clinic setting serving a narrowly defined population, but was enhanced by using existing health care services within primary care practices to integrate risk assessment into usual health care processes.

**Home visitation intervention trials.** Ten trials that enrolled children on the basis of risk assessment for abuse and neglect and evaluated outcomes of home visitation interventions have been published since the previous USPSTF evidence review and met inclusion criteria (**Appendix B1**).<sup>39,68-76</sup> The new publications contribute to results of trials that were included in the previous report.<sup>60,77-85</sup> All trials used the same basic approach, but differed by enrollment criteria, duration of intervention and followup, type of provider, outcome measures, and other important factors.

All of the new included trials met criteria for fair quality because of specific methodological limitations or lack of information about methods (**Appendix B2**). These consist of inadequate inclusion and exclusion criteria,<sup>69</sup> randomization or allocation concealment,<sup>39,69-74,76</sup> or blinding;<sup>39,73,75</sup> low adherence with the intervention ( $\leq 50\%$ );<sup>70-72</sup> high loss to followup ( $>20\%$ );<sup>39,71,73-76</sup> dissimilar groups at baseline or followup;<sup>70,72,74,76</sup> and lack of intention-to-treat analysis.<sup>39,68-76</sup>

Enrollment eligibility for most trials was based on the presence of risk factors for child abuse and neglect, such as inadequate prenatal care; young age of parents; limited finances, education, and social support; or substance abuse history (**Table 2**).<sup>69,73-75,77,80,81,84,85</sup> In some studies, a two-step process was used that included an assessment of risk factors followed by an evaluation using a standardized instrument, such as the Kempe Family Stress Checklist.<sup>70-72,82</sup>

Home visits began either before or after birth and continued for 3 to 36 months after birth. The intervention was provided by either a paraprofessional, such as a lay person who had participated in a 9-week training course (nine trials),<sup>69-73,75,81,82,85</sup> or a professional, typically a nurse (five trials).<sup>74,76-80,84,86</sup>

The trials were conducted in the United States, Canada, Australia, New Zealand, and the United Kingdom. Most were modeled after trials initiated more than 15 years ago in Elmira, New York<sup>77</sup> and Memphis, Tennessee.<sup>80</sup> In these trials, subjects were randomized to one of four groups, including: 1) no home visitation; 2) developmental screening and referral, with transportation services to the medical clinic during pregnancy; 3) home visitation during pregnancy every 2 weeks and two postpartum visits, in addition to transportation services; and 4) home visitation continuing through the child's second birthday, in addition to transportation services. In the Elmira study, the goals of home visitation included parent education, enhancement of support systems for the mother, and engagement of family members with health and social services.<sup>77</sup> In the Memphis study, goals included improvement of health-related behaviors for better pregnancy outcomes and child health, financial stability of families by helping parents find employment and complete their educations, and family planning.<sup>80</sup>

Trials evaluated child mortality,<sup>68</sup> CPS reports (six trials),<sup>69-74</sup> legal removal of the child from home (two trials),<sup>69,70</sup> emergency visits (three trials),<sup>71,73,76</sup> and hospitalizations (five trials).<sup>69-71,73,76</sup> Trials also reported additional relevant measures of medical neglect that were not included in the previous report, including adherence with early childhood immunizations (eight trials)<sup>73,75,76,78,80,83-85</sup> and adherence with well-child visits (five trials).<sup>73,75,80,83,85</sup> Six trials described self-reports of severe abuse and slapping or spanking of infants.<sup>39,70-73,82</sup>

*Child mortality.* In a long-term followup study of the Memphis trial that included 743 children, those receiving home visits by a nurse as infants were less likely to die by age 9 years than those in the usual care control group, although results were of borderline statistical significance (1 vs. 10 deaths;  $p=0.08$ ) (**Table 3**).<sup>68</sup> In this study, the one death in the home visit group was the result of chromosomal abnormalities, whereas, of the 10 children who died in the control group, three died from complications of prematurity, three from Sudden Infant Death Syndrome, three from injury (homicide assault by firearm, accidental injury from firearm, and motor vehicle accident), and one from an intestinal infection.

*CPS reports.* Six trials provided CPS reports as an outcome, including confirmed CPS reports,<sup>70-72</sup> all types of CPS reports,<sup>69,74</sup> and parent descriptions of CPS reports<sup>73</sup> (**Table 4**). No trials found differences in rates of CPS reports between home-visited and control groups while the studies were ongoing.<sup>69-74</sup> However, one trial found that children visited by a professional clinical team had decreased CPS involvement at 3 years after enrollment (odds ratio [OR] for effect of the intervention, 2.1 [95% CI, 1.0 to 4.4]).<sup>74</sup> Three trials had very low (<50%) rates of family participation.<sup>70-72</sup>

The previous USPSTF review found inconsistent effects on CPS reports (**Table 4**). In the only good-quality trial,<sup>77</sup> results of a subgroup analysis at 2-year followup found that poor, high-risk teenage mothers who were visited by nurses were less likely to commit acts of confirmed child abuse and neglect compared with those without visits (4% vs. 19%;  $p=0.07$ ). However, there were no differences for the entire sample, and results at 3- and 4-year followup showed no differences.<sup>78</sup> At the 15-year followup, children in the nurse-visited group were less likely to be involved in substantiated CPS reports (incidence rate, 0.44 vs. 0.73;  $p=0.04$ ).<sup>79</sup> Also, nurse-visited mothers were less likely to be a substantiated perpetrator of child abuse (incidence rate, 0.32 vs. 0.65;  $p=0.01$ ), regardless of the child involved (study child or other child), over the same 15-year period. Two

other fair-quality trials of visits by paraprofessionals found no differences in total CPS reports after either 1<sup>85</sup> or 3<sup>81</sup> years of followup.

*Removal of the child from the home.* Two trials reported removal of the child from the home (**Table 5**).<sup>69,70</sup> Although both reported higher proportions of children removed from the home in the home-visited group than in the control group, differences were not statistically significant over 18 (6% vs. 0%;  $p$ =not significant)<sup>69</sup> or 36 months of followup (1.8% vs. 0.8%;  $p$ =not significant).<sup>70</sup> The previous USPSTF review found no studies evaluating this outcome.

*Emergency visits.* Three trials evaluated hospital emergency visits by enrolled children (**Table 6**).<sup>71,73,76</sup> A trial specifically evaluating visits for injuries or ingestions reported reduced hospital visits for home-visited children (OR, 0.59 [95% CI, 0.36 to 0.98]).<sup>73</sup> Two other trials reported no differences in emergency visits for ambulatory care sensitive conditions (i.e., visits that might have been prevented if timely and appropriate care had been provided),<sup>71</sup> or total number of all types of indications.<sup>76</sup> However, the latter trial found that a significantly greater number of mothers in the intervention group never used the emergency room for child health problems compared with those in the control group (36% vs. 11%;  $p$ <0.05).

The previous USPSTF review included three trials<sup>80,83,85</sup> showing no differences in emergency visits and one trial indicating fewer visits for home-visited children<sup>77,78</sup> (**Table 6**). In this good-quality trial, nurse-visited children were less likely to visit hospital emergency services at several points of followup during their first 4 years ( $p$ <0.05).<sup>77,78</sup> They were also less likely to be seen specifically for accidents and poisoning during their second year ( $p$ <0.01), although this difference was not significant for longer followup. A fair-quality trial found no difference in emergency visits specifically for injuries and ingestions, but reported that nurse-visited children had fewer outpatient visits for injuries and ingestions than children in the control group ( $p$ <0.05).<sup>80</sup> Two other trials found no difference in total emergency visits for children visited by a paraprofessional during their first<sup>83,85</sup> or second year.<sup>83</sup>

*Hospitalizations.* Five new trials reported no significant effects of home visitation on the number or percentage of children hospitalized in general,<sup>69,76</sup> due to child abuse and neglect,<sup>73</sup> or for ambulatory care sensitive conditions<sup>70,71</sup> (**Table 7**). A trial with a 12-month nurse visitation intervention and followup of an additional 12 months found that nurse-visited children had fewer episodes of hospitalizations for all indications (19 vs. 36;  $p$ <0.01), and fewer mean hospitalization days (211 vs. 143;  $p$ <0.001) at 24 months than children in the control group.<sup>76</sup>

Four trials from the previous review reporting hospitalizations found no differences between groups,<sup>78,80,83,85</sup> however, one reported significantly fewer hospital days for nurse-visited children (7 vs. 89 days;  $p$ =0.001).<sup>80</sup> This trial also reported differences in the types of injuries. The three nurse-visited children were hospitalized for burns to the face, coin ingestion, and ingestion of iron medication for a total of 7 hospital days. The 13 control-group children were hospitalized for fractures (fibula, tibia, skull [two children]), head trauma without skull fracture (three children), strangulated hernia with delay in care, coin ingestion, suspected child abuse and neglect, burns (face and neck, both legs), and finger injury with osteomyelitis for a total of 89 hospital days.<sup>80</sup>

*Adherence with child immunizations and well-child visits.* Since 2003, three trials included

measures of potential medical neglect, either nonadherence with recommended immunizations or well-child visits or both<sup>73,75,76</sup> (**Table 8**). In one trial, home-visited children received immunizations at an earlier age than children in the control group, resulting in significant differences between groups through age 9 months (2.20 vs. 1.64 mean visits;  $p=0.01$ ), but not at 12 months, although the trend continued.<sup>75</sup> Other trials indicated no differences in the second<sup>76</sup> or third year.<sup>73</sup> A trial reporting significant differences in the mean number of well-child visits at 9 (3.14 vs. 2.18 mean visits;  $p=0.0098$ ) and 12 months (3.51 vs. 2.68 mean visits;  $p=0.0098$ ) also found that the more contact the children had with study personnel, the more well-child visits they experienced at 12 months, for up to at least four visits ( $p=0.036$ ).<sup>75</sup> In another trial of home visitation for the first 24 months, home-visited children were more likely to be up to date with well-child visits (42% vs. 30%;  $p<0.05$ ) and enrolled for dental care (72% vs. 63%;  $p<0.05$ ) over a 36-month period than children not in the program.<sup>73</sup>

Adherence with immunizations and well-child visits was not addressed by the previous review. Five trials published before 2003 indicate no significant differences between groups.<sup>78,80,83-85</sup>

*Self-reports of abusive behavior toward the child.* Five trials used the Parent-Child subscale of the Conflict Tactics Scale to assess mothers' self reports of severe abusive behaviors toward their children or infants<sup>39,70-73</sup> (**Table 9**). One trial found a significant difference in self-reported severe physical assault at 36 months (4% of home-visited mothers vs. 12% of control-group mothers;  $p<0.01$ ).<sup>73</sup> While another trial indicated no differences in the prevalence of abuse at 24 months, home-visited mothers reported one fourth as many acts of serious physical abuse, such as kicking or hitting the child with a fist, compared with control-group mothers ( $p=0.03$ ).<sup>72</sup> Two other trials reported no differences in severe child maltreatment between groups.<sup>70,71</sup> In a trial comparing a cognitive-based extension of the Healthy Start home visitation program with the usual Healthy Start program, there were few instances of self-reported infant abuse on the Conflict Tactics Scale.<sup>39</sup>

Self-reported child abuse was not addressed by the previous USPSTF review. One trial published before 2003 found that parents of high-risk infants (i.e., preterm infants or infants with low Apgar scores) in an enhanced home visitation group reported less infant spanking and slapping than parents of high-risk infants in unenhanced home visitation and control groups (18% vs. 42% in the unenhanced and control groups combined;  $p<0.05$ ).<sup>82</sup>

## **Key Question 2. What Are the Adverse Effects of Behavioral Interventions and Counseling to Reduce Harm From Abuse and Neglect?**

Adverse effects of interventions were not explicitly evaluated in the trials, and additional studies of adverse effects were not identified by the literature searches. Although not described in the publication, during the SEEK trial, investigators maintained regular contact with the pediatric primary care practices involved in the trial and actively monitored potential adverse effects. No adverse effects were reported by participants (personal communication with Howard Dubowitz, March 3, 2011).

# CHAPTER 4. DISCUSSION

## Summary of Review Findings

**Table 10** summarizes the evidence reviewed for this update. Key question 1 was addressed by 11 trials of interventions, and no studies provided data to address key question 2. An RCT of a clinic-based intervention to prevent child abuse and neglect using the SEEK Model screened families of young children for risk of abuse and offered educational materials and social work services to families with increased risk. Families in the intervention group had fewer CPS reports, episodes of severe or very severe physical assault, nonadherence to medical care, and delays in immunizations than those in the usual care group 3 years after the intervention. Although not reported in the publication, investigators indicated that no harms were identified. The SEEK Model is currently under further evaluation in a second trial that includes 66 pediatricians and 24 nurse practitioners in 18 private practices.<sup>36</sup> In this trial, mothers in SEEK practices reported less psychological aggression and minor physical assault than mothers in usual care practices.<sup>87</sup> Additional outcomes from this trial have not yet been published.

Ten new trials evaluated the effectiveness of early childhood home visitation for children with identified risk factors for abuse and neglect. Studies varied by design, outcomes, and intensity of the intervention. Differences between intervention and control groups were reported for several outcomes, including reduced CPS reports, emergency visits, hospitalizations, and self-reports of abuse, and improved adherence to immunizations and well-child care. However, adherence was low and results were inconsistent across trials for most outcomes.

The trials provide support for specific features of home visitation interventions. Results varied depending on who administered the intervention, the duration of home visits, the number or proportion of planned home visits actually accomplished, and if the intervention included additional educational components. Most of the statistically significant benefits were demonstrated by the trials with the more intense interventions, such as several nurse visits for 24 months or longer, suggesting that they are the most effective.<sup>77,80</sup> However, no studies directly compared the effectiveness of different lengths or intensities of home visitation.

The use of CPS reports as an outcome measure is complicated by the various types of reports available. Although trials differed regarding the reporting of total CPS reports or substantiated reports only, a study comparing types of reports found that child health and behavior outcomes between the two groups were minimal, and that close to 90 percent of children with at least one substantiated CPS report also had at least one unsubstantiated report.<sup>88</sup>

## Limitations

Limitations of this review include using only English-language articles and studies applicable to the United States, and excluding studies of interventions for children who did not undergo risk assessment.

The primary limitation of the intervention trials concerns an almost complete focus on home visitation as the principle intervention. All of the trials assessed parents for child abuse risk based on the presence or absence of risk factors rather than screening the children themselves. Also, trials were limited to very young children. Although these are all important areas of research, no trials extend beyond this focus.

The home visitation trials are also highly heterogeneous, with the actual interventions differing widely. Interventions were performed by paraprofessionals with a high school diploma and some additional training<sup>70,72</sup> as well as by experienced nurses or other health care professionals.<sup>77,80</sup> They also differed in the number of home visitation sessions offered, from as few as nine<sup>85</sup> to as many as 41 sessions<sup>69</sup> over a time period ranging from 3 months<sup>85</sup> to 3 years after birth.<sup>73</sup> This heterogeneity contributes to the inconsistency of results.

For many trials, the approach to evaluating interventions often lacked a priori identification of primary and secondary outcomes. Outcomes also varied, and were expressed in different ways, such as prevalence rates or total numbers of events, and include some self-reported outcomes that are subject to bias. All of these differences limit comparisons. Additionally, this review did not evaluate child development outcomes, although several of the home visitation trials included in this review provided them.<sup>69,73,74,80,83,89</sup> Surveillance bias also confounded some outcomes, and two studies reported that CPS referrals were made by the home visitor.<sup>70,71</sup> Long-term followup beyond the intervention period would provide a less biased approach.

This review focuses on the primary prevention of child abuse and neglect identified through screening or risk assessment. Universal primary prevention programs, in which screening or risk assessment is not necessary because all caregivers are provided with the intervention, were not included. Nonetheless, these are also valuable strategies. Shaken baby prevention education in hospitals for parents of newborns is one such approach.<sup>90</sup> Studies of secondary prevention programs to prevent child abuse and neglect among caregivers with a history of abusing children,<sup>91</sup> treatment of abused children, and community-based programs were also outside the scope of this review.

The applicability of the intervention trials may be limited, and it is unclear if results would be similar for families who are not enrolled in the trials. However, several home visitation trials were conducted in the Healthy Families Program.<sup>71,72</sup> The Healthy Families America Program currently has home visitation programs in 35 States and the District of Columbia with 383 total sites, providing resources beyond the research trials.<sup>92</sup>

## Emerging and Future Research

The use of biomarkers as screening tools for physical violence is an area of ongoing research. In a study of well-appearing infants with nonspecific symptoms and no history of trauma, those with elevations in serum and/or cerebrospinal fluid levels of neuron-specific enolase and myelin-basic protein were more likely to have inflicted traumatic brain injuries.<sup>93</sup> In another study, 44 serum biomarkers were studied in infants with mild inflicted traumatic brain injury and in those without known brain injury.<sup>94</sup> Discrimination between abused and nonabused infants was determined with 87 percent sensitivity and 90 percent specificity using classification algorithms. Use of pancreatic

and liver enzymes to screen for occult abdominal trauma in situations of possible physical abuse has also been explored.<sup>95</sup>

The relationship between harsh punishment, such as spanking, and child abuse needs to be further explored. In an anonymous telephone survey of mothers with children younger than age 18 years, the odds of physical child abuse were greatly elevated if the parents used an object to spank their children (OR, 8.9 [95% CI, 4.1 to 19.6]).<sup>96</sup> When spanking was confined to with the hands only, the association with physical abuse was less (OR, 1.03 [95% CI, 1.01 to 1.06]).<sup>96</sup> Escalation of violence along this continuum could be prevented if harsh punishment practices are recognized and alternatives considered.

The relationship between IPV and child abuse also requires additional research. In households where both partners assault each other, the odds that one or both parents used physical punishment with their children is twice that of households with no IPV, even after controlling for parenting stress, depression, and substance abuse.<sup>97</sup> Studies of IPV with child abuse outcomes are summarized in **Table 11**. Although few studies have addressed this issue, some of the most compelling results indicate worse birth outcomes for women experiencing IPV during pregnancy, including very low birth weight and very preterm birth.<sup>98</sup> Interventions directed at identifying and reducing IPV also result in benefits to children. Neonatal outcomes improve for women experiencing IPV who undergo counseling interventions during pregnancy.<sup>99,100</sup>

Additional research is also needed to determine effective methods for physicians and other health care clinicians to identify asymptomatic children at risk or currently experiencing abuse or neglect. Instruments applicable to children of all ages need to be developed, validated, and tested in the screening population. The lack of studies of older children, which was identified in the previous USPSTF report as an important evidence gap, has yet to be addressed. Efforts to improve the identification of abused and neglected children need to be coupled with the development and evaluation of effective interventions to which they can be referred once identified.

Research is also needed to confirm the efficacy of the observed benefits reported in the included intervention studies and expand their applicability. Standardization of interventions and outcomes would strengthen the evidence and allow quantitative meta-analysis. This research should also determine whether there are unintended harms as a result of screening, risk assessment, and interventions.

## Conclusions

A trial of screening for risk of abuse and neglect among families with children age 5 years and younger in pediatric clinics indicated reductions in physical assault, CPS reports, episodes of nonadherence to medical care, and delays in immunizations among screened children. Risk factors were identified using an office-based questionnaire and were addressed by pediatricians supported by social work services in the clinic using existing health resources. Trials of early childhood home visitation reported reduced CPS reports, emergency visits, hospitalizations, and self-reports of abuse and neglect, as well as improved adherence to immunizations and well-child care. Clinicians are well positioned to identify children at risk for abuse and neglect and to connect families with appropriate prevention interventions. More research is needed in key areas to provide clinicians

with methods to do so, and to demonstrate the effectiveness of interventions once risk for abuse and neglect is identified.

## REFERENCES

1. Nelson HD, Bougatsos C, Blazina I. Screening Women for Intimate Partner Violence and Elderly and Vulnerable Adults for Abuse: Systematic Review to Update the 2004 U.S. Preventive Services Task Force Recommendation. Evidence Synthesis No. 92. AHRQ Publication No. 12-05167-EF-1. Rockville, MD: Agency for Healthcare Research and Quality; 2012. Accessed at <http://www.ncbi.nlm.nih.gov/books/NBK97297/> on 14 December 2012.
2. Nelson HD, Bougatsos C, Blazina I. Screening women for intimate partner violence: a systematic review to update the 2004 U.S. Preventive Services Task Force recommendation. *Ann Intern Med.* 2012;156(11):796-808.
3. Nelson H, Nygren P, McInerney Y. Screening for Family and Intimate Partner Violence. Systematic Evidence Review No. 28. Rockville, MD: Agency for Healthcare Research and Quality; 2004. Accessed at <http://www.ncbi.nlm.nih.gov/books/NBK42851/> on 14 December 2012.
4. Nygren P, Nelson HD, Klein J. Screening children for family violence: a review of the evidence for the U.S. Preventive Services Task Force. *Ann Fam Med.* 2004;2(2):161-9.
5. U. S. Preventive Services Task Force. Screening for family and intimate partner violence: recommendation statement. *Ann Fam Med.* 2004;2(2):156-60.
6. U.S. Preventive Services Task Force. Screening for Family and Intimate Partner Violence: Recommendation Statement. Rockville, MD: Agency for Healthcare Research and Quality; 2004. Accessed at <http://www.uspreventiveservicestaskforce.org/3rduspstf/famviolence/famviolrs.htm> on 14 December 2012.
7. Centers for Disease Control and Prevention. Understanding Intimate Partner Violence: Fact Sheet. Atlanta: Centers for Disease Control and Prevention; 2012. Accessed at [http://www.cdc.gov/ViolencePrevention/pdf/IPV\\_Factsheet2012-a.pdf](http://www.cdc.gov/ViolencePrevention/pdf/IPV_Factsheet2012-a.pdf) on 14 December 2012.
8. Leeb RT, Paulozzi LJ, Melanson C, Simon TR, Arias I. Child Maltreatment Surveillance: Uniform Definitions for Public Health and Recommended Data Elements. Version 1.0. Atlanta: Centers for Disease Control and Prevention; 2008. Accessed at [http://www.cdc.gov/violenceprevention/pdf/CM\\_Surveillance-a.pdf](http://www.cdc.gov/violenceprevention/pdf/CM_Surveillance-a.pdf) on 14 December 2012.
9. Child Abuse Prevention and Treatment Act Amendments of 1996 (PL 104-235, Oct. 3, 1996). United States Statutes at Large, 104 (1996) pp. 3063-92.
10. U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth, and Families, Children's Bureau, Office on Child Abuse and Neglect. The Child Abuse Prevention and Treatment Act as Amended by the Keeping Children and Families Safe Act of 2003. Washington, DC: U.S. Department of Health and Human Services; 2003. Accessed at <http://www.acf.hhs.gov/sites/default/files/cb/capta2003.pdf> on 14 December 2012.
11. U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth, and Families, Children's Bureau. Child Maltreatment 2009. Washington, DC: U.S. Department of Health and Human Services; 2010. Accessed at <http://archive.acf.hhs.gov/programs/cb/pubs/cm09/cm09.pdf> on 14 December 2012.

12. Child Welfare Information Gateway. Definitions of Child Abuse and Neglect. Washington, DC: U.S. Department of Health and Human Services; 2011. Accessed at [http://www.childwelfare.gov/systemwide/laws\\_policies/statutes/define.cfm%20](http://www.childwelfare.gov/systemwide/laws_policies/statutes/define.cfm%20) on 14 December 2012.
13. Saltzman LE, Fanslow JL, McMahon PM, Shelley GA. Intimate Partner Violence Surveillance: Uniform Definitions and Recommended Data Elements. Version 1.0. Atlanta: Centers for Disease Control and Prevention; 1999. Accessed at [http://www.cdc.gov/ncipc/pub-res/ipv\\_surveillance/Intimate%20Partner%20Violence.pdf](http://www.cdc.gov/ncipc/pub-res/ipv_surveillance/Intimate%20Partner%20Violence.pdf) on 14 December 2012.
14. U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth, and Families, Children's Bureau. Child Maltreatment 2010. Washington, DC: U.S. Department of Health and Human Services; 2011. Accessed at <http://archive.acf.hhs.gov/programs/cb/pubs/cm10/cm10.pdf> on 14 December 2012.
15. Hussey JM, Chang JJ, Kotch JB. Child maltreatment in the United States: prevalence, risk factors, and adolescent health consequences. *Pediatrics*. 2006;118(3):933-42.
16. Shaffer A, Huston L, Egeland B. Identification of child maltreatment using prospective and self-report methodologies: a comparison of maltreatment incidence and relation to later psychopathology. *Child Abuse Negl*. 2008;32(7):682-92.
17. McFarlane JM, Groff JY, O'Brien JA, Watson K. Behaviors of children who are exposed and not exposed to intimate partner violence: an analysis of 330 black, white, and Hispanic children. *Pediatrics*. 2003;112(3 Pt 1):e202-7.
18. Goodwin RD, Stein MB. Association between childhood trauma and physical disorders among adults in the United States. *Psychol Med*. 2004;34(3):509-20.
19. Wegman HL, Stetler C. A meta-analytic review of the effects of childhood abuse on medical outcomes in adulthood. *Psychosom Med*. 2009;71(8):805-12.
20. Pederson CL, Wilson JF. Childhood emotional neglect related to posttraumatic stress disorder symptoms and body mass index in adult women. *Psychol Rep*. 2009;105(1):111-26.
21. Whitaker RC, Phillips SM, Orzol SM, Burdette HL. The association between maltreatment and obesity among preschool children. *Child Abuse Negl*. 2007;31(11-12):1187-99.
22. Davis DA, Luecken LJ, Zautra AJ. Are reports of childhood abuse related to the experience of chronic pain in adulthood? A meta-analytic review of the literature. *Clin J Pain*. 2005;21(5):398-405.
23. Brown J, Berenson K, Cohen P. Documented and self-reported child abuse and adult pain in a community sample. *Clin J Pain*. 2005;21(5):374-7.
24. Leeners B, Stiller R, Block E, Görres G, Rath W. Pregnancy complications in women with childhood sexual abuse experiences. *J Psychosom Res*. 2010;69(5):503-10.
25. Chartier MJ, Walker JR, Naimark B. Childhood abuse, adult health, and health care utilization: results from a representative community sample. *Am J Epidemiol*. 2007;165(9):1031-8.
26. Cutajar MC, Mullen PE, Ogloff JR, Thomas SD, Wells DL, Spataro J. Psychopathology in a large cohort of sexually abused children followed up to 43 years. *Child Abuse Negl*. 2010;34(11):813-22.
27. Lown AE, Nayak MB, Korcha RA, Greenfield TK. Child physical and sexual abuse: a comprehensive look at alcohol consumption patterns, consequences, and dependence from the National Alcohol Survey. *Alcohol Clin Exp Res*. 2011;35(2):317-25.

28. Schneider R, Baumrind N, Kimerling R. Exposure to child abuse and risk for mental health problems in women. *Violence Vict.* 2007;22(5):620-31.
29. Battle CL, Shea MT, Johnson DM, Yen S, Zlotnick C, Zanarini MC, et al. Childhood maltreatment associated with adult personality disorders: findings from the Collaborative Longitudinal Personality Disorders Study. *J Pers Disord.* 2004;18(2):193-211.
30. Bierer LM, Yehuda R, Schmeidler J, Mitropoulou V, New AS, Silverman JM, et al. Abuse and neglect in childhood: relationship to personality disorder diagnoses. *CNS Spectr.* 2003;8(10):737-54.
31. Sickel AE, Noll JG, Moore PJ, Putnam FW, Trickett PK. The long-term physical health and healthcare utilization of women who were sexually abused as children. *J Health Psychol.* 2002;7(5):583-97.
32. Trickett P, Putnam F, Noll J. Child Abuse Team/Mayerson Center for Safe and Healthy Children: Longitudinal Study on Childhood Sexual Abuse—Summary. Cincinnati, OH: Cincinnati Children's Hospital Medical Center; 2005.
33. Thompson R, Tabone JK. The impact of early alleged maltreatment on behavioral trajectories. *Child Abuse Negl.* 2010;34(12):907-16.
34. Centers for Disease Control and Prevention. Child Maltreatment: Risk and Protective Factors. Atlanta: Centers for Disease Control and Prevention; 2012. Accessed at <http://www.cdc.gov/ViolencePrevention/childmaltreatment/riskprotectivefactors.html> on 14 December 2012.
35. Sullivan PM, Knutson JF. Maltreatment and disabilities: a population-based epidemiology study. *Child Abuse Negl.* 2000;24(10):1257-73.
36. Dubowitz H, Kim J, Black MM, Weisbart C, Semiatin J, Magder LS. Identifying children at high risk for a child maltreatment report. *Child Abuse Negl.* 2011;35(2):96-104.
37. Palazzi S, de Girolamo G, Liverani T; ICHilMa (Italian Child Maltreatment Study Group). Observational study of suspected maltreatment in Italian paediatric emergency departments. *Arch Dis Child.* 2005;90(4):406-10.
38. Taylor J, Baldwin N, Spencer N. Predicting child abuse and neglect: ethical, theoretical and methodological challenges. *J Clin Nurs.* 2008;17(9):1193-200.
39. Bugental DB, Schwartz A. A cognitive approach to child mistreatment prevention among medically at-risk infants. *Dev Psychol.* 2009;45(1):284-8.
40. Avellar S, Paulsell D, Sama-Miller E, Del Grosso P. Home Visiting Evidence of Effectiveness Review: Executive Summary. Washington, DC: U.S. Department of Health and Human Services; 2012. Accessed at [http://homvee.acf.hhs.gov/HomVEE\\_Executive\\_Summary\\_2012.pdf](http://homvee.acf.hhs.gov/HomVEE_Executive_Summary_2012.pdf) on 14 December 2012.
41. Child Welfare Information Gateway. Mandatory Reporters of Child Abuse and Neglect: Summary of State Laws. Washington, DC: U.S. Department of Health and Human Services; 2010. Accessed at [http://www.childwelfare.gov/systemwide/laws\\_policies/statutes/manda.pdf](http://www.childwelfare.gov/systemwide/laws_policies/statutes/manda.pdf) on 14 December 2012.
42. Flaherty EG, Stirling J Jr; American Academy of Pediatrics, Committee on Child Abuse and Neglect. Clinical report—the pediatrician's role in child maltreatment prevention. *Pediatrics.* 2010;126(4):833-41.
43. Bair-Merritt MH, Giardino AP, Turner M, Ganetsky M, Christian CW. Pediatric residency training on domestic violence: a national survey. *Ambul Pediatr.* 2004;4(1):24-7.

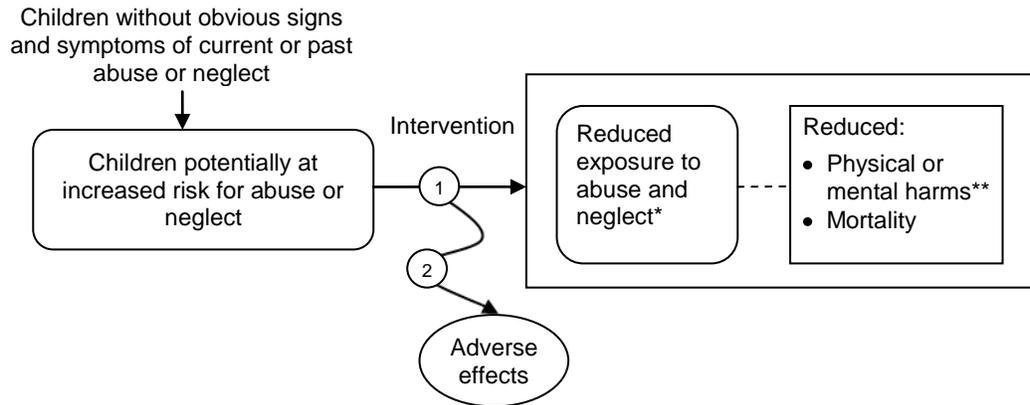
44. Lapidus G, Cooke MB, Gelven E, Sherman K, Duncan M, Banco L. A statewide survey of domestic violence screening behaviors among pediatricians and family physicians. *Arch Pediatr Adolesc Med.* 2002;156(4):332-6.
45. Starling SP, Heisler KW, Paulson JF, Youmans E. Child abuse training and knowledge: a national survey of emergency medicine, family medicine, and pediatric residents and program directors. *Pediatrics.* 2009;123(4):e595-602.
46. Lane WG, Dubowitz H. Primary care pediatricians' experience, comfort and competence in the evaluation and management of child maltreatment: do we need child abuse experts? *Child Abuse Negl.* 2009;33(2):76-83.
47. Flaherty EG, Sege R, Price LL, Christoffel KK, Norton DP, O'Connor KG. Pediatrician characteristics associated with child abuse identification and reporting: results from a national survey of pediatricians. *Child Maltreat.* 2006;11(4):361-9.
48. American Medical Association. Opinion 2.02: Physicians' Obligations in Preventing, Identifying, and Treating Violence and Abuse. Chicago: American Medical Association; 2008. Accessed at <http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/opinion202.page> on 14 December 2012.
49. American Academy of Family Physicians. Family and Intimate Partner Violence and Abuse. Leawood, KS: American Academy of Family Physicians; 2009. Accessed at <http://www.aafp.org/online/en/home/policy/policies/f/familyandintimatepartner-violenceandabuse.html> on 14 December 2012.
50. Emergency Nurses Association. Emergency Nurses Association Position Statement: Intimate Partner and Family Violence, Maltreatment, and Neglect. Des Plaines, IL: Emergency Nurses Association; 2006. Accessed at [http://www.ena.org/SiteCollectionDocuments/Position%20Statements/Violence\\_-\\_Intimate\\_Partner\\_and\\_Family\\_-\\_ENA\\_PS.pdf](http://www.ena.org/SiteCollectionDocuments/Position%20Statements/Violence_-_Intimate_Partner_and_Family_-_ENA_PS.pdf) on 14 December 2012.
51. Family Violence Prevention Fund. National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings. San Francisco: Family Violence Prevention Fund; 2004. Accessed at <http://www.futureswithoutviolence.org/userfiles/file/Consensus.pdf> on 14 December 2012.
52. Council of International Neonatal Nurses. Council of International Neonatal Nurses Position Statement on Routine Screening for Intimate Partner Violence. Boston: Council of International Neonatal Nurses; 2010. Accessed at [http://www.coinnurses.org/1\\_documents/resources/p\\_statement/Position\\_Stat\\_Intimate\\_Partner\\_Violence.pdf](http://www.coinnurses.org/1_documents/resources/p_statement/Position_Stat_Intimate_Partner_Violence.pdf) on 14 December 2012.
53. MacMillan HL; Canadian Task Force on Preventive Health Care. Preventive health care, 2000 update: prevention of child maltreatment. *CMAJ.* 2000;163(11):1451-8.
54. Guide to Community Preventive Services. Violence Prevention: Early Childhood Home Visitation. Atlanta: Centers for Disease Control and Prevention; 2010. Accessed at <http://www.thecommunityguide.org/violence/home/index.html> on 14 December 2012.
55. Guide to Community Preventive Services. Early Childhood Home Visitation to Prevent Violence. Atlanta: Centers for Disease Control and Prevention; 2012. Accessed at <http://www.thecommunityguide.org/violence/home/homevisitation.html> on 14 December 2012.
56. Nelson HD, Nygren P, McInerney Y, Klein J; U.S. Preventive Services Task Force. Screening women and elderly adults for family and intimate partner violence: a review of

- the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2004;140(5):387-96.
57. Harris RP, Helfand M, Woolf SH, Lohr KN, Mulrow CD, et al; Methods Work Group, Third US Preventive Services Task Force. Current methods of the US Preventive Services Task Force: a review of the process. *Am J Prev Med.* 2001;20(3 Suppl):21-35.
  58. Hussey DL, Guo S. Characteristics and trajectories of treatment foster care youth. *Child Welfare.* 2005;84(4):485-506.
  59. Leeflang MM, Deeks JJ, Gatsonis C, Bossuyt PM; Cochrane Diagnostic Test Accuracy Working Group. Systematic reviews of diagnostic test accuracy. *Ann Intern Med.* 2008;149(12):889-97.
  60. Armstrong KL, Fraser JA, Dadds MR, Morris J. A randomized, controlled trial of nurse home visiting to vulnerable families with newborns. *J Paediatr Child Health.* 1999;35(3):237-44.
  61. Hardy JB, Streett R. Family support and parenting education in the home: an effective extension of clinic-based preventive health care services for poor children. *J Pediatr.* 1989;115(6):927-31.
  62. Krysik J, LeCroy CW. The evaluation of Healthy Families Arizona: a multisite home visitation program. *J Prev Interv Community.* 2007;34(1-2):109-27.
  63. Larson CP. Efficacy of prenatal and postpartum home visits on child health and development. *Pediatrics.* 1980;66(2):191-7.
  64. Starn JR. Community health nursing visits for at-risk women and infants. *J Community Health Nurs.* 1992;9(2):103-10.
  65. Stevens-Simon C, Nelligan D, Kelly L. Adolescents at risk for mistreating their children, II: a home- and clinic-based prevention program. *Child Abuse Negl.* 2001;25(6):753-69.
  66. Atkins D, Chang SM, Gartlehner G, Buckley DI, Whitlock EP, Berliner E, et al. Assessing applicability when comparing medical interventions: AHRQ and the Effective Health Care Program. *J Clin Epidemiol.* 2011;64(11):1198-207.
  67. Dubowitz H, Feigelman S, Lane W, Kim J. Pediatric primary care to help prevent child maltreatment: the Safe Environment for Every Kid (SEEK) Model. *Pediatrics.* 2009;123(3):858-64.
  68. Olds DL, Kitzman H, Hanks C, Cole R, Anson E, Sidora-Arcoleo K, et al. Effects of nurse home visiting on maternal and child functioning: age-9 follow-up of a randomized trial. *Pediatrics.* 2007;120(4):e832-45.
  69. Barlow J, Davis H, McIntosh E, Jarrett P, Mockford C, Stewart-Brown S. Role of home visiting in improving parenting and health in families at risk of abuse and neglect: results of a multicentre randomised controlled trial and economic evaluation. *Arch Dis Child.* 2007;92(3):229-33.
  70. Duggan A, McFarlane E, Fuddy L, Burrell L, Higman SM, Windham A, et al. Randomized trial of a statewide home visiting program: impact in preventing child abuse and neglect. *Child Abuse Negl.* 2004;28(6):597-622.
  71. Duggan A, Caldera D, Rodriguez K, Burrell L, Rohde C, Crowne SS. Impact of a statewide home visiting program to prevent child abuse. *Child Abuse Negl.* 2007;31(8):801-27.
  72. DuMont K, Mitchell-Herzfeld S, Greene R, Lee E, Lowenfels A, Rodriguez M, et al. Healthy Families New York (HFNY) randomized trial: effects on early child abuse and neglect. *Child Abuse Negl.* 2008;32(3):295-315.

73. Fergusson DM, Grant H, Horwood LJ, Ridder EM. Randomized trial of the Early Start program of home visitation. *Pediatrics*. 2005;116(6):e803-9.
74. Lowell DI, Carter AS, Godoy L, Paulicin B, Briggs-Gowan MJ. A randomized controlled trial of Child FIRST: a comprehensive home-based intervention translating research into early childhood practice. *Child Dev*. 2011;82(1):193-208.
75. El-Mohandes AA, Katz KS, El-Khorazaty MN, McNeely-Johnson D, Sharps PW, Jarrett MH, et al. The effect of a parenting education program on the use of preventive pediatric health care services among low-income, minority mothers: a randomized, controlled study. *Pediatrics*. 2003;111(6 Pt 1):1324-32.
76. Koniak-Griffin D, Verzemnieks IL, Anderson NL, Brecht ML, Lesser J, Kim S, et al. Nurse visitation for adolescent mothers: two-year infant health and maternal outcomes. *Nurs Res*. 2003;52(2):127-36.
77. Olds DL, Henderson CR Jr, Chamberlin R, Tatelbaum R. Preventing child abuse and neglect: a randomized trial of nurse home visitation. *Pediatrics*. 1986;78(1):65-78.
78. Olds DL, Henderson CR Jr, Kitzman H. Does prenatal and infancy nurse home visitation have enduring effects on qualities of parental caregiving and child health at 25 to 50 months of life? *Pediatrics*. 1994;93(1):89-98.
79. Eckenrode J, Ganzel B, Henderson CR Jr, Smith E, Olds DL, Powers J, et al. Preventing child abuse and neglect with a program of nurse home visitation: the limiting effects of domestic violence. *JAMA*. 2000;284(11):1385-91.
80. Kitzman H, Olds DL, Henderson CR Jr, Hanks C, Cole R, Tatelbaum R, et al. Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing: a randomized trial. *JAMA*. 1997;278(8):644-52.
81. Barth RP. An experimental evaluation of in-home child abuse prevention services. *Child Abuse Negl*. 1991;15(4):363-75.
82. Bugental DB, Ellerson PC, Lin EK, Rainey B, Kokotovic A, O'Hara N. A cognitive approach to child abuse prevention. *J Fam Psychol*. 2002;16(3):243-58.
83. Duggan AK, McFarlane EC, Windham AM, Rohde CA, Salkever DS, Fuddy L, et al. Evaluation of Hawaii's Healthy Start Program. *Future Child*. 1999;9(1):66-90.
84. Fraser JA, Armstrong KL, Morris JP, Dadds MR. Home visiting intervention for vulnerable families with newborns: follow-up results of a randomized controlled trial. *Child Abuse Negl*. 2000;24(11):1399-429.
85. Siegel E, Bauman KE, Schaefer ES, Saunders MM, Ingram DD. Hospital and home support during infancy: impact on maternal attachment, child abuse and neglect, and health care utilization. *Pediatrics*. 1980;66(2):183-90.
86. Olds DL, Sadler L, Kitzman H. Programs for parents of infants and toddlers: recent evidence from randomized trials. *J Child Psychol Psychiatry*. 2007;48(3-4):355-91.
87. Dubowitz H, Lane WG, Semiatin JN, Magder LS. The SEEK model of pediatric primary care: can child maltreatment be prevented in a low-risk population? *Acad Pediatr*. 2012;12(4):259-68.
88. Hussey JM, Marshall JM, English DJ, Knight ED, Lau AS, Dubowitz H, et al. Defining maltreatment according to substantiation: distinction without a difference? *Child Abuse Negl*. 2005;29(5):479-92.
89. Olds DL, Robinson J, O'Brien R, Luckey DW, Pettitt LM, Henderson CR Jr, et al. Home visiting by paraprofessionals and by nurses: a randomized, controlled trial. *Pediatrics*. 2002;110(3):486-96.

90. Dias MS, Smith K, DeGuehery K, Mazur P, Li V, Shaffer ML. Preventing abusive head trauma among infants and young children: a hospital-based, parent education program. *Pediatrics*. 2005;115(4):e470-7.
91. Chaffin M, Silovsky JF, Funderburk B, Valle LA, Brestan EV, Balachova T, et al. Parent-child interaction therapy with physically abusive parents: efficacy for reducing future abuse reports. *J Consult Clin Psychol*. 2004;72(3):500-10.
92. Prevent Child Abuse America. Healthy Families America. Chicago: Prevent Child Abuse America; 2012. Accessed at <http://www.healthyfamiliesamerica.org> on 14 December 2012.
93. Berger RP. The use of serum biomarkers to predict outcome after traumatic brain injury in adults and children. *J Head Trauma Rehabil*. 2006;21(4):315-33.
94. Berger RP, Ta'asan S, Rand A, Lokshin A, Kochanek PM. Multiplex assessment of serum biomarker concentrations in well-appearing children with inflicted traumatic brain injury. *Pediatr Res*. 2009;65(1):97-102.
95. Lane WG, Dubowitz H, Langenberg P. Screening for occult abdominal trauma in children with suspected physical abuse. *Pediatrics*. 2009;124(6):1595-602.
96. Zolotor AJ, Theodore AD, Chang JJ, Berkoff MC, Runyan DK. Speak softly—and forget the stick: corporal punishment and child physical abuse. *Am J Prev Med*. 2008;35(4):364-9.
97. Taylor B, Stein N, Burden F. The effects of gender violence/harassment prevention programming in middle schools: a randomized experimental evaluation. *Violence Vict*. 2010;25(2):202-23.
98. El-Mohandes AA, Kiely M, Blake SM, Gantz MG, El-Khorazaty MN. An intervention to reduce environmental tobacco smoke exposure improves pregnancy outcomes. *Pediatrics*. 2010;125(4):721-8.
99. El-Mohandes AA, Kiely M, Gantz MG, El-Khorazaty MN. Very preterm birth is reduced in women receiving an integrated behavioral intervention: a randomized controlled trial. *Matern Child Health J*. 2011;15(1):19-28.
100. Kiely M, El-Mohandes AA, El-Khorazaty MN, Blake SM, Gantz MG. An integrated intervention to reduce intimate partner violence in pregnancy: a randomized controlled trial. *Obstet Gynecol*. 2010;115(2 Pt 1):273-83.
101. Olds DL, Kitzman H, Cole R, Robinson J, Sidora K, Luckey DW, et al. Effects of nurse home-visiting on maternal life course and child development: age 6 follow-up results of a randomized trial. *Pediatrics*. 2004;114(6):1550-9.
102. Taylor JE, Harvey ST. A meta-analysis of the effects of psychotherapy with adults sexually abused in childhood. *Clin Psychol Rev*. 2010;30(6):749-67.
103. McGuigan WM, Vuchinich S, Pratt CC. Domestic violence, parents' view of their infant, and risk for child abuse. *J Fam Psychol*. 2000;14(4):613-24.

**Figure. Analytic Framework**



\* Child Protective Services reports, removal of the child from the home, and reports of abuse or neglect.

\*\* Physical injuries, mental health conditions, use of health care services, adherence with immunizations and well-child visits, and other relevant health measures.

### **Key Questions**

1. For children without obvious signs and symptoms of abuse or neglect, but potentially at increased risk, how well do behavioral interventions and counseling initiated in primary care settings reduce exposure to abuse or neglect, physical or mental harms, or mortality?
2. What are the adverse effects of behavioral interventions and counseling to reduce harm from abuse and neglect?

**Table 1. Recommendations of Other Groups**

Organization, year	Recommendations
American Academy of Family Physicians, 2004 <sup>49</sup>	Family physicians should be alert to physical and behavioral signs and symptoms associated with abuse or neglect. The American Academy of Family Physicians concludes that the evidence is insufficient to recommend for or against screening of parents or guardians for the physical abuse or neglect of children, and of adults or adolescents of either sex for intimate partner violence.
American Academy of Pediatrics, 2010 <sup>42</sup>	The pediatrician can help to strengthen families and promote safe, stable, nurturing relationships with the aim of preventing maltreatment by: identifying family strengths, recognizing risk factors, providing helpful guidance, and referring families to programs and other resources with the goal of strengthening families, preventing child maltreatment, and enhancing child development.
American Medical Association, 2008 <sup>48</sup>	Physicians should routinely inquire about physical, sexual, and psychological abuse as part of the medical history. Physicians should also consider abuse as a factor in the presentation of medical complaints because patients' experiences with interpersonal violence or abuse may adversely affect their health status or ability to adhere to medical recommendations.
Canadian Task Force on Preventive Health Care, 2000 <sup>53</sup>	There is further evidence of fair quality to exclude screening procedures aimed at identifying individuals at risk of experiencing or committing child maltreatment (grade D recommendation). There is good evidence to continue recommending a program of home visitation for disadvantaged families during the perinatal period extending through infancy to prevent child abuse and neglect (grade A recommendation). The strongest evidence is for an intensive program of home visitation delivered by nurses beginning prenatally and extending until the child's second birthday. There is insufficient evidence to recommend a comprehensive health care program (grade C recommendation), a parent education and support program (grade C recommendation), or a combination of home-based services (grade C recommendation) as a strategy for preventing child maltreatment, but these interventions may be recommended for other reasons. There is insufficient evidence to recommend education programs for the prevention of sexual abuse (grade C recommendation); whether such programs reduce the incidence of sexual abuse has not been established.
Community Task Force on Preventive Services, 2010 <sup>55</sup>	The Community Task Force does not recommend for or against screening. Early childhood home visitation interventions are recommended to prevent child maltreatment.
Council of International Neonatal Nurses, 2010 <sup>52</sup>	Recommends the promotion of positive health outcomes for neonates via routine screening for intimate partner violence among women of childbearing age to prevent fetal loss, fetal injury, and premature birth associated with intimate partner violence, in addition to promoting the overall health of the family.
Emergency Nurses Association, 2006 <sup>50</sup>	Emergency nurses should be involved in the development, implementation, and use of routine protocols and procedures for the assessment, identification, and referral of victims of family and intimate partner violence, maltreatment, and neglect.
Futures Without Violence <sup>51</sup>	Recommends screening for family violence during pediatric care; however, the focus is on intimate partner violence and the effects of intimate partner violence on children, adolescents, and teens.

**Table 2. Enrollment Criteria for Intervention Trials With Significant Benefit Outcomes**

Criteria		Elmira <sup>77-79</sup>	Memphis <sup>68, 80</sup>	Healthy Families Alaska <sup>71</sup>	Hawaii Healthy Start <sup>70, 83</sup>	Bugental 2002 <sup>82</sup>	Bugental 2009 <sup>39</sup>	Early Start Program <sup>73</sup>	Child First <sup>74</sup>	Early Intervention Program <sup>76</sup>	EI-Mohandes 2003 <sup>75</sup>	Healthy Families New York <sup>72</sup>
<b>Pregnancy-related factors</b>	First pregnancy	XX	XX							XX		
	Unplanned pregnancy							X <sup>d</sup>				
	<26 or <29 weeks' gestation		XX							XX	XX	
	Late, none, or poor prenatal care				X							
	History of abortion unsuccessfully sought				X							
	Adoption sought				X							
<b>Parent-related factors</b>	Parent age <18, <19, or <20 years	X <sup>a</sup>						X <sup>d</sup>		XX		X <sup>i</sup>
	Single parent	X <sup>a</sup>	X <sup>b</sup>		X							X <sup>i</sup>
	Low income or low socioeconomic status	X <sup>a</sup>			X	X <sup>c</sup>		X <sup>d</sup>				
	<12 years education		X <sup>b</sup>		X	X <sup>c</sup>						X <sup>i</sup>
	Parent unemployed		X <sup>b</sup>		X	X <sup>c</sup>						
	Unstable housing				X	X <sup>c</sup>						X <sup>i</sup>
	Low social support				X			X <sup>d</sup>				
	History of substance abuse			X	X			X <sup>d</sup>				
	Parent in permanent caregiving environment								X <sup>g</sup>			
	Parent requested participation	X <sup>a</sup>										
	Poor mental health/depression/psychiatric care			X	X							
	Domestic violence			X				X <sup>d</sup>				
	No phone				X							
	Marital or family problems				X							
<b>Child-related factors</b>	Child ages 6–36 months								XX			
	Child ages 0–5 years											
	Infant at medical risk (Cesarean section, preterm, medical issue)						XX					
	Child with social-emotional or behavior problem: BITSEA <sup>i</sup>								X <sup>g</sup>			
<b>Health care-related factors</b>	Parental risk factors on hospital chart				XX							
	Nurse has concerns							X				

**Table 2. Enrollment Criteria for Intervention Trials With Significant Benefit Outcomes**

Criteria		Elmira <sup>77-79</sup>	Memphis <sup>68, 80</sup>	Healthy Families Alaska <sup>71</sup>	Hawaii Healthy Start <sup>70, 83</sup>	Bugental 2002 <sup>82</sup>	Bugental 2009 <sup>39</sup>	Early Start Program <sup>73</sup>	Child First <sup>74</sup>	Early Intervention Program <sup>76</sup>	EI-Mohandes 2003 <sup>75</sup>	Healthy Families New York <sup>72</sup>
Parent Screening	Kempe Family Stress Checklist <sup>i</sup>			X <sup>e</sup>	X <sup>e</sup>	X <sup>f</sup>						X <sup>h</sup>
	Parent Screening Questionnaire											
	Parent Risk Questionnaire								X <sup>g</sup>			
	Preliminary Screening Questionnaire					XX						

X = Enrollment criteria.

XX = Required enrollment criteria.

<sup>a</sup>Need 1 of 3 criteria in addition to required.

<sup>b</sup>Need 2 of 3 criteria in addition to required.

<sup>c</sup>Need 2 or more criteria from Preliminary Screening Questionnaire.

<sup>d</sup>Need 2 or more criteria or nurse had concerns.

<sup>e</sup>Kempe Family Stress Checklist score  $\geq 25$ .

<sup>f</sup>After meeting initial criteria, Kempe Family Stress Checklist score of 25–40 required.

<sup>g</sup>Child or adult may qualify. Child must be ages 6–36 months with social/emotional/behavioral problems or parent must screen high for risk on Parent Risk Questionnaire and be in a permanent caregiving environment.

<sup>h</sup>After meeting initial criteria; either parent must score  $\geq 25$ .

<sup>i</sup>Kempe items include: abuse history, prior Child Protective Services involvement, current crisis, history of partner violence, belief in harsh punishment, perception that child is difficult, unrealistic child expectations, parental ambivalence about the child.

<sup>j</sup>Brief Infant-Toddler Social and Emotional Assessment.

<sup>k</sup>Intervention group only took the Parent Screening Questionnaire.

<sup>l</sup>These risk factors were given as an example, others may be used.

**Table 3. Home Visitation Trial Reporting Child Mortality**

<b>Author, Year Study</b>	<b>N; Study Duration</b>	<b>Referral Method; Country</b>	<b>Results, Intervention vs. Control</b>	<b>Quality</b>
Olds et al, 2007 <sup>68</sup> <i>Memphis Trial</i>	743; 9 years	Prenatal clinics; United States	1 vs. 10 deaths; OR, 0.22 (95% CI, 0.03 to 1.74); p=0.08	Fair

CI = confidence interval; OR = odds ratio.

**Table 4. Home Visitation Trials Reporting Child Protective Services Reports**

Author, Year; Study	N; Study Duration	Referral Method; Country	Results, Intervention vs. Control	Quality
<b>Current Report</b>				
Barlow et al, 2007 <sup>69</sup> <i>Family Partnership Model</i>	121; 18 months	Prenatal clinics; United Kingdom	Child protection register or care proceedings: RR, 2.02 (95% CI, 0.46–2.54) Child protection issues: 17% vs. 15%; NS Removal of child from home: 6% (4/68) vs. 0% (0/63); NS	Fair
Duggan et al, 2007 <sup>71</sup> <i>Healthy Families Alaska</i>	364; 2 years	Community agencies; United States	Substantiated or overall CPS reports: no difference	Fair
Duggan et al, 2004 <sup>70</sup> <i>Hawaii Healthy Start Program</i>	643; 3 years	Prenatal clinics; United States	No difference	Fair
DuMont et al, 2008 <sup>72</sup> <i>Healthy Families New York</i>	1173; 2 years	University hospital; United States	CPS reports: no difference	Fair
Fergusson et al, 2005 <sup>73</sup>	433; 3 years	Communitywide screening; New Zealand	CPS reports: no difference	Fair
Lowell et al, 2011 <sup>74</sup>	157; 3 years	Primary care clinics; WIC programs; United States	CPS involvement at 36 months: 14% vs. 31%; OR, 2.1 (95% CI, 1.1–4.4); p<0.05	Fair
<b>Previous Report</b>				
Barth et al, 1991 <sup>81</sup> <i>Child Parent Enrichment Project</i>	191; 6 months	Various agencies; United States	By family: increase in number of unsubstantiated reports: 13 vs. 10; NS; increase in number of substantiated reports: 10 vs. 13; NS By report: increase in number of unsubstantiated reports: 20 vs. 41; NS; increase in number of substantiated reports: 19 vs. 5; NS	Fair
Olds et al, 1986 <sup>77</sup> <i>Elmira Trial</i>	400; 2 years	Prenatal clinics; United States	Higher risk subgroup (poor, unmarried teens): confirmed reports of abuse/neglect, 4% vs. 19%; p=0.07 Entire sample: no difference	Good
Olds et al, 1994, <sup>78</sup> <i>Elmira Trial</i>	400; 4 years	Prenatal clinics; United States	New cases, whole sample: OR, 0.56 (95% CI, 0.00–1.37)	Good
Eckenrode et al, 2000 <sup>79</sup> <i>Elmira Trial</i>	400; 15 years	Prenatal clinics; United States	Incidence rate for substantiated child maltreatment reports involving mother as perpetrator: 0.32 vs. 0.65; p=0.01 Incidence rate for substantiated reports involving the study child as subject: 0.44 vs. 0.73; p=0.04	Good
Siegel et al, 1980 <sup>85</sup>	321; 1 year	Prenatal clinic; United States	14 vs. 9 reports; NS	Fair

CI = confidence interval; CPS = Child Protective Services; NS = not significant; OR = odds ratio; RR = relative risk; WIC = supplementary nutrition program for Women, Infants, and Children.

**Table 5. Home Visitation Trials Reporting Removal of the Child From the Home**

<b>Author, Year Study</b>	<b>N; Study Duration</b>	<b>Referral Method; Country</b>	<b>Results, Intervention vs. Control</b>	<b>Quality</b>
Barlow et al, 2007 <sup>69</sup> <i>Family Partnership Model</i>	121; 18 months	Prenatal clinics; United Kingdom	Removal of child from home: 6% (4/68) vs. 0% (0/63); NS	Fair
Duggan et al, 2004 <sup>70</sup> <i>Hawaii Healthy Start Program</i>	643; 3 years	Prenatal clinic; United States	Placement in foster care: 1.8% vs. 0.8%; NS	Fair

NS = not significant.

**Table 6. Home Visitation Trials Reporting Emergency Department Visits**

Author, Year Study	N; Study Duration	Referral Method; Country	Results, Intervention vs. Control	Quality
<b>Current Report</b>				
Duggan et al, 2007 <sup>71</sup> <i>Healthy Families Alaska</i>	364; 2 years	Prenatal clinics; United States	Emergency visits in first 2 years: 81% vs. 78%; p=0.42	Fair
Fergusson et al, 2005 <sup>73</sup> <i>Early Start Program</i>	433; 3 years	Community nurses; New Zealand	Proportion seen in hospital for accident/injury or accidental poisoning (0 to 36 months): 17.5% vs. 26.3%; p<0.05; OR, 0.59 (95% CI, 0.36–0.98)	Fair
Koniak Griffin et al, 2003 <sup>76</sup>	101; 2 years	Community Health Services; United States	Total number of children with emergency visits: 64% vs. 89%; NS Never used emergency services for child health problems: 36% vs. 11%; p<0.05	Fair
<b>Previous Report</b>				
Duggan et al, 1999 <sup>83</sup> <i>Hawaii Healthy Start Program</i>	643; 3 years	Prenatal clinic; United States	Ever used emergency services, first 2 years: 58% vs. 60%; p=0.69	Fair
Kitzman et al, 1997 <sup>80</sup> <i>Memphis Trial</i>	1139; 2 years	Public obstetric clinic; United States	Adjusted incidence of emergency visits for injuries/ingestions during first 2 years: 0.33 vs. 0.34; NS	Fair
Olds et al, 1986 <sup>77</sup> <i>Elmira Trial</i>	400; 2 years	Prenatal clinics; United States	Intervention children had fewer visits to emergency room during their 1st and 2nd years (p<0.05 and p<0.01, respectively) and presented with fewer accidents and poisonings at 2 years (p<0.05)	Good
Olds et al, 1994, <sup>78</sup> <i>Elmira Trial</i>	400; 4 years	Prenatal clinics; United States	Nurse-visited children made 35% fewer visits to emergency department than controls (p=0.0008)	Good
Siegel et al, 1980 <sup>85</sup>	321; 1 year	Prenatal clinic; United States	No difference in health care utilization, including emergency visits	Fair

CI = confidence interval; NS = not significant; OR = odds ratio.

**Table 7. Home Visitation Trials Reporting Hospitalizations**

<b>Author, Year Study</b>	<b>N; Study Duration</b>	<b>Referral Method; Country</b>	<b>Results, Intervention vs. Control</b>	<b>Quality</b>
<b>Current Report</b>				
Barlow et al, 2007 <sup>69</sup> <i>Family Partnership Model</i>	121; 18 months	Prenatal clinics; United Kingdom	Proportion of admissions to hospital (maternal report): 8.1% vs. 14.3%; RR, 1.38 (95% CI, 0.68–2.8)	Fair
Duggan et al, 2004 <sup>70</sup> <i>Hawaii Healthy Start Program</i>	643; 3 years	Prenatal clinic; United States	For those with complete hospitalization data: trauma admissions, 1.5% vs. 1.7%; NS; ambulatory care sensitive conditions, 12% vs. 10%; p=0.39	Fair
Duggan et al, 2007 <sup>71</sup> <i>Healthy Families Alaska</i>	364; 2 years	Prenatal clinics; United States	Child hospitalized for ambulatory care sensitive conditions: 9% vs. 9%; p=0.80	Fair
Fergusson et al, 2005 <sup>73</sup> <i>Early Start Program</i>	433; 3 years	Community nurses; New Zealand	Admitted to hospital for child abuse or neglect: 1% vs. 2%; p=0.31	Fair
Koniak Griffin et al, 2003 <sup>76</sup>	101; 2 years	Community Health Services; United States	Children hospitalized: 21% vs. 36%; NS Episodes of hospitalizations for all indications: 19 vs. 36; p<0.01 Days infants hospitalized: 143 vs. 211 days; p<0.001	Fair
<b>Previous Report</b>				
Duggan et al, 1999 <sup>83</sup> <i>Hawaii Healthy Start Program</i>	643; 3 years	Prenatal clinic; United States	Ever hospitalized for any reason during the first 2 years: 19% vs. 22%; p=0.44	Fair
Kitzman et al, 1997 <sup>80</sup> <i>Memphis Trial</i>	1139; 2 years	Prenatal clinic; United States	Adjusted incidence of hospitalizations for injuries or ingestions: 0.01 vs. 0.03; NS Days hospitalized for injuries or ingestions: 7 vs. 89; p=0.001	Fair
Olds et al, 1994, <sup>78</sup> <i>Elmira Trial</i>	400; 4 years	Prenatal clinics; United States	Mean number of hospitalizations: 0.14 vs. 0.11; NS	Good
Siegel et al, 1980 <sup>85</sup>	321; 1 year	Prenatal clinic; United States	Number of hospitalizations: no difference	Fair

CI = confidence interval; NS = not significant; RR = relative risk.

**Table 8. Home Visitation Trials Reporting Adherence With Immunizations and Well-Child Visits**

Author, Year Study	N; Study Duration	Referral Method; Country	Immunization Results, Intervention vs. Control	Well-Child Visit Results, Intervention vs. Control	Quality
<b>Current Report</b>					
El-Mohandes et al, 2003 <sup>75</sup>	286; 1 year	Obstetric hospital; United States	Mean # of immunization visits: At 4 mo: 1.01 vs. 0.77; p=0.0498 At 6 mo: 1.50 vs. 1.13; p=0.0295 At 9 mo: 2.20 vs. 1.64; p=0.0125 At 12 mo: 2.44 vs. 2.00; p=0.08	Well-infant care: Mean # of visits at 9 mo: 3.14 vs. 2.18; p=0.0098 Mean # of visits at 12 mo: 3.51 vs. 2.68; p=0.0098 Intensity of well-infant visits (12 mo): At least 1 visit: 93.6% vs. 75.3%; p=0.0022 At least 2 visits: 89.4% vs. 63.6%; p=0.0007 At least 3 visits: 78.7% vs. 51.9%; p=0.0018 At least 4 visits: 59.6% vs. 41.6%; p=0.0363 At least 5 visits: 27.7% vs. 23.4%; p=0.3475	Fair
Fergusson et al, 2005 <sup>73</sup> <i>Early Start Program</i>	433; 3 years	Community nurses; New Zealand	Up to date with immunizations: 92.5% vs. 91.9%; p=0.83	Up to date with well-child visits: 41.9% vs. 30.1%; p<0.05 Enrolled for dental care: 72% vs. 63%; p<0.05	Fair
Koniak-Griffin et al, 2003 <sup>76</sup>	101; 2 years	Community Health Services; United States	Adequately immunized: 77% vs. 87%; NS	Not reported	Fair
<b>Older Trials</b>					
Duggan et al, 1999 <sup>83</sup> <i>Hawaii Healthy Start Program</i>	643; 3 years	Prenatal clinic; United States	Immunizations up to date: 87% vs. 85%; p=0.45	Adequate # of well-child visits: 60% vs. 59%; p=0.95	Fair
Fraser et al, 2000 <sup>84</sup>	181; 1 year	Obstetric hospital; Australia	Age-appropriate completed immunizations: no difference (values not reported)	Not reported	Fair
Kitzman et al, 1997 <sup>80</sup> <i>Memphis Trial</i>	1139; 2 years	Prenatal clinic; United States	Immunizations: 70% vs. 68%, OR, 1.1 (95% CI, 0.7–1.5)	Mean # of well-child visits (0–24 mo): 4.6 vs. 4.8; NS	Fair
Olds et al, 1994 <sup>78</sup> <i>Elmira Trial</i>	400; 4 years	Prenatal clinics; United States	Mean # of health supervision visits: 1.26 vs. 1.56; NS	Not reported	Good
Siegel et al, 1980 <sup>85</sup>	321; 1 year	Prenatal clinic; United States	Immunizations: no difference	Preventive care visits: no difference	Fair

CI = confidence interval; NS = not significant; OR = odds ratio.

**Table 9. Home Visitation Trials Reporting Self-Reports of Child Abuse and Neglect**

<b>Author, Year Study</b>	<b>N; Study Duration</b>	<b>Referral Method; Country</b>	<b>Results, Intervention vs. Control</b>	<b>Quality</b>
<b>Current Report</b>				
Bugental et al, 2009 <sup>39</sup>	110; 1 year	Health care providers, social workers; United States	Self-reported physical abuse: 4% vs. 5%	Fair
Duggan et al, 2004 <sup>70</sup> <i>Hawaii Healthy Start Program</i>	643; 3 years	Prenatal clinic; United States	Self-reported severe physical abuse (year 3): 22% vs. 15%; p=0.17 Self-reported very severe physical abuse (year 3): 6% vs. 7%	Fair
Duggan et al, 2007 <sup>71</sup> <i>Healthy Families Alaska</i>	364; 2 years	Prenatal clinics; United States	Self-reported severe assault: 9% vs. 7%; p=0.67	Fair
DuMont et al, 2008 <sup>72</sup> <i>Healthy Families New York</i>	1173; 2 years	Various agencies; United States	Self-reported episodes of very serious abuse: 0.01 vs. 0.08; p=0.04 (significant at year 1 only) Self-reported episodes of serious physical abuse: 0.01 vs. 0.04; p=0.03 (significant at year 2 only)	Fair
Fergusson et al, 2005 <sup>73</sup> <i>Early Start Program</i>	433; 3 years	Community nurses; New Zealand	Proportion of parents reporting severe physical punishment: 4.4% vs. 11.7%; p<0.01; OR, 0.35 (95% CI, 0.15–0.80)	Fair
<b>Older Trials</b>				
Bugental et al, 2002 <sup>82</sup>	96; 1 year	Primary care clinics; United States	Prevalence of infant spanking/slapping: 18% vs. 42%; p<0.05	Fair

CI = confidence interval; OR = odds ratio.

**Table 10. Summary of Evidence**

Studies, <i>n</i>	Design	Limitations	Consistency	Applicability	Overall quality	Findings
<b>Key Question 1. For children without obvious signs and symptoms of abuse or neglect, but who are potentially at increased risk, how well do behavioral interventions and counseling initiated in primary care settings reduce exposure to abuse or neglect, physical or mental harms, or mortality?</b>						
1 trial of a clinic-based program and 10 trials of early childhood home visitation	RCT	Trials were limited by heterogeneity, low adherence, high loss to followup, and lack of standardized measures	Inconsistent for some outcomes	Moderate	Fair	A trial in a pediatric clinic showed reduced physical assault, CPS reports, medical care nonadherence, and immunization delay among screened children. 10 trials of early childhood home visitation reported reduced CPS reports, emergency visits, hospitalizations, and self-reports of abuse and neglect and improved adherence to immunizations and well-child care, although results were inconsistent
<b>Key Question 2. What are the adverse effects of behavioral interventions and counseling to reduce harm from abuse and neglect?</b>						
1 trial of a clinic-based intervention (based on communication with investigators)	RCT	Studies of adverse effects were lacking	Not relevant	Moderate	Not relevant	The clinic-based trial reported no adverse effects from the interventions

RCT = randomized, controlled trial; CPS = Child Protective Services.

**Table 11. Studies of Intimate Partner Violence Reporting Child Abuse Outcomes**

Author, year Study	Findings
Eckenrode et al, 2000 <sup>79</sup> <i>Elmira Trial</i>	Of women who reported 28 or fewer incidents of IPV (79% of sample), home-visited mothers had significantly fewer child maltreatment reports during the 15-year period than mothers not receiving the intervention (p=0.01); the treatment effect of home visitation decreased as IPV increased.
Duggan et al, 2007 <sup>71</sup> <i>Healthy Families Alaska</i>	Program impact on IPV: psychological abuse (p=0.23), physical abuse (0.38), any injury (p=0.55).
Olds et al, 2004 <sup>101</sup> <i>Memphis Trial</i>	There were no statistically significant program effects on IPV (birth to age 6, p=0.87).
Olds et al, 2007 <sup>68</sup> <i>Memphis Trial</i>	Adjusted estimate of program effects on IPV from birth to age 6 (p=0.373).
Taylor et al, 2010 <sup>102</sup>	Of couples who reported any family aggression (87%), 54% reported that both harsh punishment and IPV occurred. The most prevalent patterns of abuse involved both parents as aggressors toward either each other or the child. The presence of bilateral IPV doubled the odds that one or both parents would use corporal punishment, even after controlling for potential confounders such as parenting stress, depression, and alcohol or other drug use.
Kiely et al, 2010 <sup>100</sup>	Women receiving tailored counseling sessions for IPV had significantly fewer very preterm neonates (p=0.03).
El-Mohandes et al, 2010 <sup>98</sup>	IPV at baseline significantly increased the chances of very low birth weight and very preterm birth outcomes in neonates (OR, 3.75 and 2.71, respectively [p<0.05]).
McGuigan et al, 2000 <sup>103</sup>	Mothers and fathers experiencing IPV viewed the child more negatively compared with mothers and fathers not experiencing IPV (p<0.001).

IPV = intimate partner violence; OR = odds ratio.

## Appendix A1. Search Strategies

*Search strategies of various populations (children, elder/vulnerable individuals, and adult women) were combined into one library and reviewed concurrently; therefore, strategies for all of these populations are included below.*

### Searches for Randomized, Controlled Trials

#### *Children*

Database: EBM Reviews – Cochrane Central Register of Controlled Trials

- 1 ((domestic\$ or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.
- 3 from 2 keep 1-808

#### *Elder*

Database: EBM Reviews – Cochrane Central Register of Controlled Trials

- 1 ((domestic\$ or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.
- 3 ((elder\$ or parent\$ or mother\$ or father\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 4 from 3 keep 1-396

#### *Spouse*

Database: EBM Reviews – Cochrane Central Register of Controlled Trials

- 1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 from 1 keep 1-387

### Searches for Systematic Reviews

#### *Children*

Database: EBM Reviews – Cochrane Database of Systematic Reviews

- 1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.
- 2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.
- 3 from 2 keep 1-88

#### *Elder*

Database: EBM Reviews – Cochrane Database of Systematic Reviews

- 1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabitat\$ or (intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.

## Appendix A1. Search Strategies

altercat\$)).mp.

2 ((baby or babies or infan\$ or toddler\$ or child\$ or teen\$ or adolescen\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$)).mp.

3 ((elder\$ or parent\$ or mother\$ or father\$) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.

4 from 3 keep 1-56

### *Spouse*

Database: EBM Reviews – Cochrane Database of Systematic Reviews

1 ((domestic\$ or family or families or spous\$ or husband\$ or wife or wives or cohabit\$ or intimat\$ adj2 partner\$)) adj5 (violen\$ or abus\$ or batter\$ or assault\$ or attack\$ or aggressi\$ or altercat\$)).mp.

2 from 1 keep 1-59

## Searches for Interventions

### *Domestic*

Database: Ovid MEDLINE

1 exp domestic violence/

2 exp battered women/

3 1 or 2

4 exp Family Practice/

5 exp Primary Health Care/

6 exp Physicians, Family/

7 exp Emergency Medicine/

8 exp Emergency Medical Services/

9 4 or 5 or 6

10 7 or 8

11 exp Preventive Health Services/

12 exp Counseling/

13 exp Mental Health Services/

14 exp "Outcome and Process Assessment (Health Care)"/

15 3 and 9

16 3 and 10

17 3 and 11

18 3 and 12

19 3 and 13

20 3 and 14

21 15 or 16 or 17 or 18 or 19 or 20

22 limit 21 to (english language and yr="2002 -Current")

23 from 22 keep 1-1687

Database: PsycINFO

1 exp Domestic Violence/

2 exp pediatrics/

## Appendix A1. Search Strategies

- 3 (pediatrician\$ or paediatrician\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 4 exp gerontology/
- 5 gerontologist\$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 6 exp Family Medicine/
- 7 exp Primary Health Care/
- 8 exp General Practitioners/
- 9 exp Family Physicians/
- 10 (primary care or family medicine or family practice or general practice or gp).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 11 exp Emergency Services/
- 12 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 13 2 or 3
- 14 4 or 5
- 15 6 or 7 or 8 or 9 or 10
- 16 11 or 12
- 17 1 and 13
- 18 1 and 14
- 19 1 and 15
- 20 1 and 16
- 21 17 or 18 or 19 or 20
- 22 from 21 keep 1-205

### *Children*

Database: Ovid MEDLINE

- 1 exp Child Abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all child (0 to 18 years)"
- 4 1 or 3
- 5 exp Schools/
- 6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/
- 7 5 and 6
- 8 limit 7 to "all child (0 to 18 years)"
- 9 4 or 8
- 10 exp Family Practice/
- 11 exp Primary Health Care/
- 12 exp Physicians, Family/
- 13 pediatrician\$.mp.
- 14 exp Pediatrics/
- 15 exp Emergency Medicine/
- 16 exp Emergency Medical Services/
- 17 10 or 11 or 12
- 18 9 and 17
- 19 13 or 14
- 20 9 and 19

## Appendix A1. Search Strategies

- 21 15 or 16
- 22 9 and 21
- 23 18 or 20 or 22
- 24 exp Preventive Health Services/
- 25 exp Counseling/
- 26 9 and 24
- 27 9 and 25
- 28 exp Mental Health Services/
- 29 9 and 28
- 30 limit 9 to clinical trial, all
- 31 exp "Outcome and Process Assessment (Health Care)"/
- 32 9 and 31
- 33 23 or 26 or 27 or 30 or 32
- 34 limit 33 to english language
- 35 limit 34 to yr="2002 -Current"
- 36 from 35 keep 1-1317

Database: PsycINFO

- 1 exp Child Abuse/
- 2 exp Child Neglect/
- 3 1 or 2
- 4 exp Domestic Violence/
- 5 limit 4 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)
- 6 exp Physical Abuse/
- 7 exp Emotional Abuse/
- 8 exp Sexual Abuse/
- 9 6 or 7 or 8
- 10 limit 9 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)
- 11 3 or 5 or 10
- 12 exp Pediatrics/
- 13 (pediatrician\$ or paediatrician\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 14 exp Family Medicine/
- 15 exp Primary Health Care/
- 16 exp General Practitioners/
- 17 exp Family Physicians/
- 18 (primary care or family medicine or family practice or general practice or gp).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 19 exp Emergency Services/
- 20 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 21 12 or 13
- 22 11 and 21
- 23 14 or 15 or 16 or 17 or 18
- 24 11 and 23
- 25 19 or 20

## Appendix A1. Search Strategies

- 26 11 and 25
- 27 22 or 24 or 26
- 28 limit 27 to yr="2002 -Current"
- 29 from 28 keep 1-243

### *Elder*

Database: Ovid MEDLINE

- 1 exp elder abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all aged (65 and over)"
- 4 1 or 3
- 5 exp residential facilities/
- 6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/
- 7 5 and 6
- 8 limit 7 to "all aged (65 and over)"
- 9 4 or 8
- 10 exp Family Practice/
- 11 exp Primary Health Care/
- 12 exp Physicians, Family/
- 13 gerontologist\$.mp.
- 14 exp geriatrics/
- 15 exp Emergency Medicine/
- 16 exp Emergency Medical Services/
- 17 10 or 11 or 12
- 18 9 and 17
- 19 13 or 14
- 20 9 and 19
- 21 15 or 16
- 22 9 and 21
- 23 18 or 20 or 22
- 24 exp Preventive Health Services/
- 25 exp Counseling/
- 26 9 and 24
- 27 9 and 25
- 28 exp Mental Health Services/
- 29 9 and 28
- 30 limit 9 to clinical trial, all
- 31 exp "Outcome and Process Assessment (Health Care)"/
- 32 9 and 31
- 33 23 or 26 or 27 or 29 or 30 or 32
- 34 limit 33 to (english language and yr="2002 -Current")
- 35 from 34 keep 1-250

Database: PsycINFO

- 1 exp elder abuse/
- 2 exp Domestic Violence/

## Appendix A1. Search Strategies

- 3 limit 2 to "380 aged <age 65 yrs and older>"
- 4 exp Physical Abuse/
- 5 exp patient abuse/
- 6 exp Emotional Abuse/
- 7 exp Sexual Abuse/
- 8 4 or 5 or 6 or 7
- 9 limit 8 to "380 aged <age 65 yrs and older>"
- 10 1 or 3 or 9
- 11 exp gerontology/
- 12 gerontologist\$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 13 exp Family Medicine/
- 14 exp Primary Health Care/
- 15 exp General Practitioners/
- 16 exp Family Physicians/
- 17 (primary care or family medicine or family practice or general practice or gp).mp.  
[mp=title, abstract, heading word, table of contents, key concepts]
- 18 exp Emergency Services/
- 19 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 20 11 or 12
- 21 10 and 20
- 22 13 or 14 or 15 or 16 or 17
- 23 10 and 22
- 24 18 or 19
- 25 10 and 24
- 26 21 or 23 or 25
- 27 limit 26 to yr="2002 -Current"
- 28 from 27 keep 1-63

### *Spouse*

Database: Ovid MEDLINE

- 1 Spouse Abuse/
- 2 ((spous\$ or wife or husband or boyfriend\$ or girlfriend\$ or married or marriage\$ or intimate partner\$ or common law or cohabitat\$) adj5 (abus\$ or violen\$ or attack\$ or assault\$ or batter\$)).mp.
- 3 exp Family Practice/
- 4 exp Primary Health Care/
- 5 exp Physicians, Family/
- 6 exp Emergency Medicine/
- 7 exp Emergency Medical Services/
- 8 3 or 4 or 5
- 9 6 or 7
- 10 exp Preventive Health Services/
- 11 exp Counseling/
- 12 exp Mental Health Services/
- 13 exp "Outcome and Process Assessment (Health Care)"/

## Appendix A1. Search Strategies

- 14 2 and 8
- 15 2 and 9
- 16 2 and 10
- 17 2 and 11
- 18 2 and 12
- 19 2 and 13
- 20 14 or 15 or 16 or 17 or 18 or 19
- 21 limit 20 to (english language and yr="2002 -Current")
- 22 from 21 keep 1-611

### Database: PsycINFO

- 1 exp partner abuse/
- 2 exp battered women/
- 3 1 or 2
- 4 exp Domestic Violence/
- 5 exp marriage/
- 6 exp marital status/
- 7 exp cohabitation/
- 8 exp spouses/
- 9 exp couples/
- 10 living arrangements/
- 11 5 or 6 or 7 or 8 or 9 or 10
- 12 4 and 11
- 13 exp Physical Abuse/
- 14 exp Emotional Abuse/
- 15 exp Sexual Abuse/
- 16 13 or 14 or 15
- 17 11 and 16
- 18 3 or 12 or 17
- 19 exp Family Medicine/
- 20 exp Primary Health Care/
- 21 exp General Practitioners/
- 22 exp Family Physicians/
- 23 (primary care or family medicine or family practice or general practice or gp).mp.  
[mp=title, abstract, heading word, table of contents, key concepts]
- 24 exp Emergency Services/
- 25 (emergency or emergencies).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 26 19 or 20 or 21 or 22 or 23
- 27 18 and 26
- 28 24 or 25
- 29 18 and 28
- 30 27 or 29
- 31 limit 30 to yr="2002 -Current"
- 32 from 31 keep 1-148

## Appendix A1. Search Strategies

### Searches for Screening

#### *Domestic*

Database: Ovid MEDLINE

- 1 exp domestic violence/
- 2 exp battered women/
- 3 1 or 2
- 4 exp Mass Screening/
- 5 3 and 4
- 6 screen\$.mp.
- 7 exp questionnaires/
- 8 exp risk assessment/
- 9 exp diagnosis/
- 10 di.fs.
- 11 9 or 10
- 12 7 and 11
- 13 3 and 6
- 14 3 and 8
- 15 3 and 12
- 16 13 or 14 or 15
- 17 limit 16 to (english language and yr="2002 -Current")
- 18 from 17 keep 1-1686

Database: PsycINFO

- 1 exp Domestic Violence/
- 2 exp Screening/
- 3 exp Screening Tests/
- 4 2 or 3
- 5 1 and 4
- 6 screen\$.mp.
- 7 1 and 6
- 8 exp Measurement/
- 9 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 10 8 and 9
- 11 1 and 10
- 12 5 or 7 or 11
- 13 limit 12 to yr="2002 -Current"
- 14 from 13 keep 1-327

#### *Children*

Database: Ovid MEDLINE

- 1 exp Child Abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all child (0 to 18 years)"
- 4 1 or 3

## Appendix A1. Search Strategies

5 exp Schools/  
6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/  
7 5 and 6  
8 limit 7 to "all child (0 to 18 years)"  
9 4 or 8  
10 exp Mass Screening/  
11 9 and 10  
12 screen\$.mp.  
13 9 and 12  
14 exp questionnaires/  
15 9 and 14  
16 exp risk assessment/  
17 9 and 16  
18 11 or 13  
19 exp diagnosis/  
20 di.fs.  
21 19 or 20  
22 15 and 21  
23 17 or 18 or 22  
24 limit 23 to yr="2002 -Current"  
25 limit 24 to english language  
26 from 25 keep 1-1094

### Database: PsycINFO

1 exp Child Abuse/  
2 exp Child Neglect/  
3 1 or 2  
4 exp Domestic Violence/  
5 limit 4 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)  
6 exp Physical Abuse/  
7 exp Emotional Abuse/  
8 exp Sexual Abuse/  
9 6 or 7 or 8  
10 limit 9 to (100 childhood <birth to age 12 yrs> or 200 adolescence <age 13 to 17 yrs>)  
11 3 or 5 or 10  
12 exp Screening/  
13 exp Screening Tests/  
14 12 or 13  
15 11 and 14  
16 screen\$.mp.  
17 11 and 16  
18 15 or 17  
19 exp Measurement/  
20 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]  
21 19 and 20

## Appendix A1. Search Strategies

- 22 11 and 21
- 23 18 or 22
- 24 limit 23 to yr="2002 -Current"
- 25 limit 24 to english language
- 26 from 25 keep 1-512

### *Elder*

Database: Ovid MEDLINE

- 1 exp elder abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "all aged (65 and over)"
- 4 1 or 3
- 5 exp residential facilities/
- 6 crime/ or exp crime victims/ or exp homicide/ or exp sex offenses/ or exp violence/
- 7 5 and 6
- 8 limit 7 to "all aged (65 and over)"
- 9 4 or 8
- 10 exp Mass Screening/
- 11 9 and 10
- 12 screen\$.mp.
- 13 9 and 12
- 14 exp questionnaires/
- 15 9 and 14
- 16 exp risk assessment/
- 17 9 and 16
- 18 11 or 13 or 15 or 17
- 19 limit 18 to (english language and yr="2002 -Current")
- 20 from 19 keep 1-412

Database: PsycINFO

- 1 exp elder abuse/
- 2 exp Domestic Violence/
- 3 limit 2 to "380 aged <age 65 yrs and older>"
- 4 exp Physical Abuse/
- 5 exp patient abuse/
- 6 exp Emotional Abuse/
- 7 exp Sexual Abuse/
- 8 4 or 5 or 6 or 7
- 9 limit 8 to "380 aged <age 65 yrs and older>"
- 10 1 or 3 or 9
- 11 exp Screening/
- 12 exp Screening Tests/
- 13 11 or 12
- 14 10 and 13
- 15 screen\$.mp.
- 16 10 and 15

## Appendix A1. Search Strategies

- 17 14 or 16
- 18 exp Measurement/
- 19 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 20 18 and 19
- 21 10 and 20
- 22 17 or 21
- 23 limit 22 to yr="2002 -Current"
- 24 limit 23 to english language
- 25 from 24 keep 1-95

### *Spouse*

Database: Ovid MEDLINE

- 1 Spouse Abuse/
- 2 ((spous\$ or wife or husband or boyfriend\$ or girlfriend\$ or married or marriage\$ or intimate partner\$ or common law or cohabitatt\$) adj5 (abus\$ or violen\$ or attack\$ or assault\$ or batter\$)).mp.
- 3 exp Mass Screening/
- 4 2 and 3
- 5 screen\$.mp.
- 6 exp questionnaires/
- 7 exp risk assessment/
- 8 exp diagnosis/
- 9 di.fs.
- 10 2 and 5
- 11 2 and 6
- 12 2 and 7
- 13 8 or 9
- 14 11 and 13
- 15 4 or 10 or 12 or 14
- 16 limit 15 to (english language and yr="2002 -Current")
- 17 from 16 keep 1-664

Database: PsycINFO

- 1 exp partner abuse/
- 2 exp battered women/
- 3 1 or 2
- 4 exp Domestic Violence/
- 5 exp marriage/
- 6 exp marital status/
- 7 exp cohabitation/
- 8 exp spouses/
- 9 exp couples/
- 10 living arrangements/
- 11 5 or 6 or 7 or 8 or 9 or 10
- 12 4 and 11

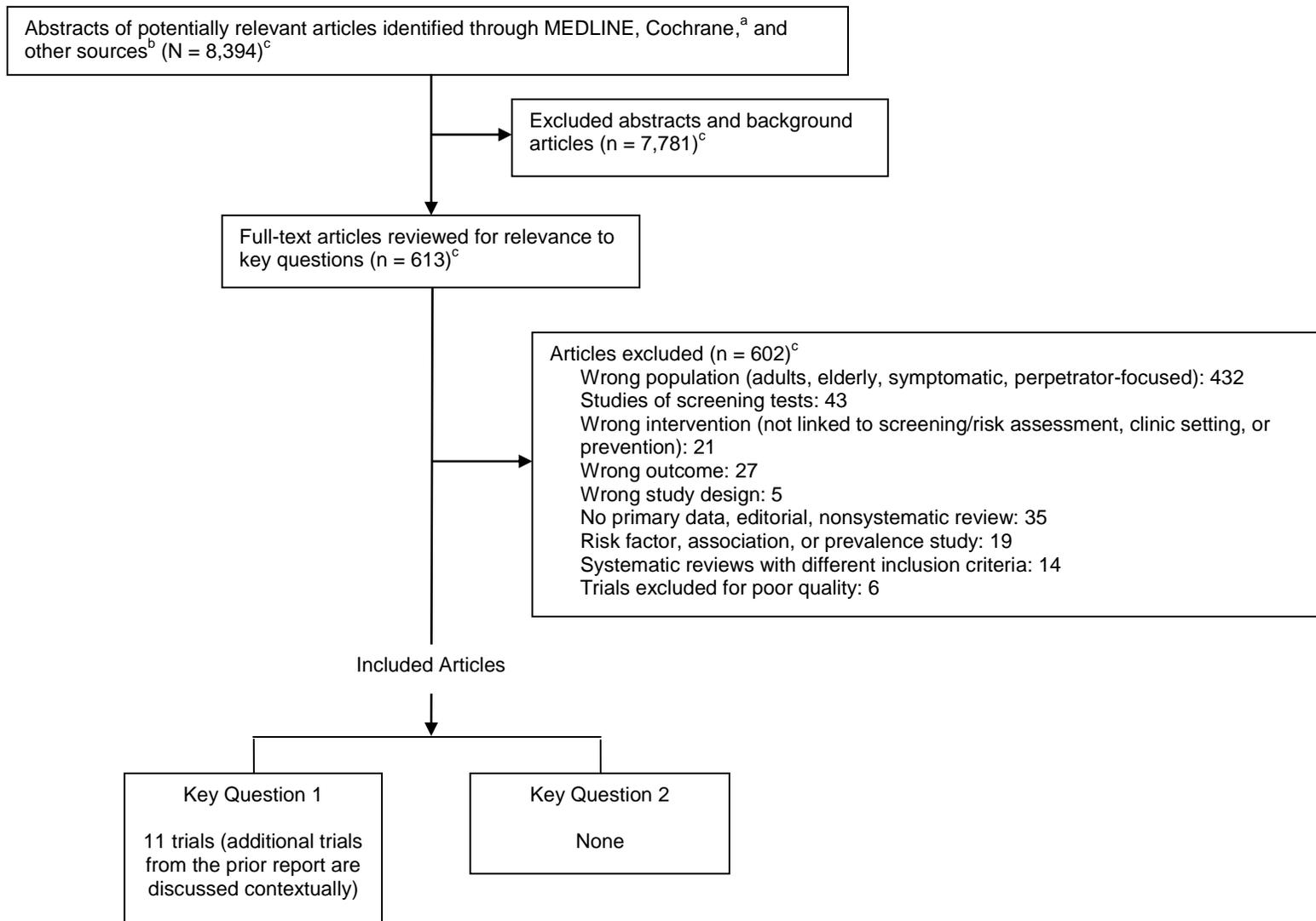
## Appendix A1. Search Strategies

- 13 exp Physical Abuse/
- 14 exp Emotional Abuse/
- 15 exp Sexual Abuse/
- 16 13 or 14 or 15
- 17 11 and 16
- 18 3 or 12 or 17
- 19 exp Screening/
- 20 exp Screening Tests/
- 21 19 or 20
- 22 screen\$.mp.
- 23 exp Measurement/
- 24 (diagnos\$ or assess\$ or discover\$ or recogni\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
- 25 23 and 24
- 26 18 and 21
- 27 18 and 22
- 28 18 and 25
- 29 26 or 27 or 28
- 30 limit 29 to yr="2002 -Current"
- 31 from 30 keep 1-366

## Appendix A2. Inclusion and Exclusion Criteria

	Inclusion Criteria	Exclusion Criteria
<b>All Key Questions</b>		
Population	Asymptomatic children, newborns through age 18 years.	Symptomatic children undergoing diagnostic evaluations for conditions related to abuse or neglect (e.g., those presenting with a broken bone or other signs of physical abuse or neglect).
Languages	Full text published in English.	NonEnglish language.
Settings	Pediatrician, primary care/family medicine, or other settings where primary care services are offered, such as emergency departments; services that could result from an assessment by a clinician; research conducted in the United States or in populations similar to U.S. populations with services and interventions applicable to U.S. practice.	Nonclinically-based settings or nonapplicable settings; populations or services/interventions not applicable to U.S. practice.
<b>Key Question 1. Interventions</b>		
Interventions	Services that could result from an assessment by a clinician; services may be implemented by nonclinicians (e.g., nurse home visitation).	Public awareness campaigns without specific interventions linked to clinical settings.
Outcomes	Decreasing levels of abuse or neglect; Child Protective Services reports; removal of the child from the home; medical outcomes including emergency department visits, hospitalizations, well-child visits, and immunizations; and self-reported “severe” or “very severe” physical abuse or spanking/slapping of an infant in the first year of life.	
Study Designs	Randomized, controlled trials.	Nonrandomized, controlled trials.
<b>Key Question 2. Harms of Interventions</b>		
Interventions	Services that could result from an assessment by a clinician; services may be implemented by nonclinicians (e.g., nurse home visitation).	Public awareness campaigns without specific interventions linked to clinical settings.
Outcomes	Any harms that result as an effect of interventions.	All considered.
Study Designs	Any.	All considered.

### Appendix A3. Literature Flow Diagram



<sup>a</sup>Cochrane databases include the Cochrane Central Register of Controlled Trials and the Cochrane Database of Systematic Reviews.

<sup>b</sup>Identified from reference lists, prior report, or suggested by experts.

<sup>c</sup>Includes search results for child, adult, and elderly populations. Studies of adults and elderly populations are included in a separate report.

## Appendix A4. List of Excluded Studies

### Wrong Population (adults, elderly, symptomatic, perpetrator-focused)

Telephone intervention works to stop intimate partner violence. *J Psychosoc Nurs Ment Health Serv.* 2004;42(6):12-3. PMID: 15237787

Acierno R, Lawyer SR, Rheingold A, Kilpatrick DG, Resnick HS, Saunders BE. Current psychopathology in previously assaulted older adults. *J Interpers Violence.* 2007;22(2):250-8. PMID: 17202579

Acierno R, Resnick H, Kilpatrick D, Stark-Riemer W. Assessing elder victimization—demonstration of a methodology. *Soc Psychiatry Psychiatr Epidemiol.* 2003;38(11):644-53. PMID: 14614553

Ahmad F. Computer-assisted screening for intimate partner violence in family practice: University of Toronto, Canada [Dissertation]. *Diss Abstr Int B Sci Eng.* 2007;68(5B):NR27718.

Ahmad F, Hogg-Johnson S, Stewart DE, Skinner HA, Glazier RH, Levinson W. Computer-assisted screening for intimate partner violence and control: a randomized trial. *Ann Intern Med.* 2009;151(2):93-102. PMID: 19487706

Ameh N, Shittu SO, Abdul MA. Risk scoring for domestic violence in pregnancy. *Niger J Clin Pract.* 2008;11(1):18-21. PMID: 18689133

Anderson BA, Marshak HH, Hebbeler DL. Identifying intimate partner violence at entry to prenatal care: clustering routine clinical information. *J Midwifery Womens Health.* 2002;47(5):353-9. PMID: 12361347

Anderst J, Hill TD, Siegel RM. A comparison of domestic violence screening methods in a pediatric office. *Clin Pediatr.* 2004;43(1):103-5. PMID: 14968901

Aneja S, Gottlieb AS, Feller E. Physician intervention for intimate partner violence. *Med Health R I.* 2009;92(9):307-9. PMID: 19842528

Annan S. Sexual violence in rural areas: a review of the literature. *Fam Community Health.* 2006;29(3):164-8. PMID: 16775466

Anthony EK, Lehning AJ, Austin MJ, Peck MD. Assessing elder mistreatment: instrument development and implications for adult protective services. *J Gerontol Soc Work.* 2009;52(8):815-36. PMID: 19830609

Ast E. The Development and Validation of the Ast Physical Discipline Inventory, 2006 (ADPI). Fresno, CA: Alliant International University; 2007.

Auchter B. Intervening with domestic violence offenders: introduction. *Violence Against Women.* 2008;14(2):131-5. PMID: 18335639

Ayranci U, Yenilmez C, Balci Y, Kaptanoglu C. Identification of violence in Turkish health care settings. *J Interpers Violence.* 2006;21(2):276-96. PMID: 16368766

Ayub M, Irfan M, Nasr T, Lutufullah M, Kingdon D, Naeem F. Psychiatric morbidity and domestic violence: a survey of married women in Lahore. *Soc Psychiatry Psychiatr Epidemiol.* 2009;44(11):953-60. PMID: 19277437

Babcock JC, Green CE, Robie C. Does batterers' treatment work? A meta-analytic review of domestic violence treatment. *Clin Psychol Rev.* 2004;23(8):1023-53. PMID: 14729422

Backos AK. Indicators of PTSD in the Draw-a-Person and Kinetic Family Drawing With Mothers and Children Exposed to Domestic Violence. San Francisco: Alliant International University; 2010.

Baird S, Jenkins SR. Vicarious traumatization, secondary traumatic stress, and burnout in sexual assault and domestic violence agency staff. *Violence Vict.* 2003;18(1):71-86. PMID: 12733620

Bair-Merritt MH, Feudtner C, Mollen CJ, Winters S, Blackstone M, Fein JA. Screening for intimate partner violence using an audiotape questionnaire: a randomized clinical trial in a pediatric emergency department. *Arch Pediatr Adolesc Med.* 2006;160(3):311-6. PMID: 16520452

Bair-Merritt MH, Jennings JM, Chen R, Burrell L, McFarlane E, Fuddy L, et al. Reducing maternal intimate partner violence after the birth of a child: a randomized controlled trial of the Hawaii healthy start home visitation program. *Arch Pediatr Adolesc Med.* 2010;164(1):16-23. PMID: 20048237

Baldry AC, Winkel FW. Intimate Partner Violence Prevention and Intervention: The Risk Assessment and Management Approach. Hauppauge, NY: Nova Science Publishers; 2008.

## Appendix A4. List of Excluded Studies

- Barlow J, Johnston I, Kendrick D, Polnay L, Stewart-Brown S. Individual and group-based parenting programmes for the treatment of physical child abuse and neglect. *Cochrane Database Syst Rev*. 2006;(3):CD005463. PMID: 16856097
- Barth RP, Hacking S, Ash JR. Preventing child abuse: an experimental evaluation of the child parent enrichment project. *J Prim Prev*. 1988;8(41):201-17.
- Basile KC, Hertz MF, Back SE. Intimate Partner Violence and Sexual Violence Victimization Assessment Instruments for Use in Healthcare Settings. Atlanta: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2007.
- Begun AL, Brondino MJ, Bolt D, Weinstein B, Strodthoff T, Shelley G. The revised Safe at Home instrument for assessing readiness to change intimate partner violence. In: Murphy CM, Maiuro RD, eds. *Motivational Interviewing and Stages of Change in Intimate Partner Violence*. New York: Springer; 2009: p. 199-223.
- Begun AL, Murphy C, Bolt D, Weinstein B, Strodthoff T, Short L, et al. Characteristics of the Safe at Home instrument for assessing readiness to change intimate partner violence. *Res Soc Work Pract*. 2003;13(1):80-107.
- Bennett C, Macdonald G, Dennis JA, Coren E, Patterson J, Astin M, et al. Home-based support for disadvantaged adult mothers. *Cochrane Database Syst Rev*. 2007;(3):CD003759. PMID: 17636732
- Bennett L, Riger S, Schewe P, Howard A, Wasco S. Effectiveness of hotline, advocacy, counseling, and shelter services for victims of domestic violence: a statewide evaluation. *J Interpers Violence*. 2004;19(7):815-29. PMID: 15186538
- Berk RA, Campbell A, Klap R, Western B. The deterrent effect of arrest in incidents of domestic violence: a Bayesian analysis of four field experiments. *Am Sociol Rev*. 1992;57(5):698-708.
- Berk RA, He Y, Sorenson SB. Developing a practical forecasting screener for domestic violence incidents. *Eval Rev*. 2005;29(4):358-83. PMID: 15985524
- Blackmore ER, Carroll J, Reid A, Biringer A, Glazier RH, Midmer D, et al. The use of the Antenatal Psychosocial Health Assessment (ALPHA) tool in the detection of psychosocial risk factors for postpartum depression: a randomized controlled trial. *J Obstet Gynaecol Can*. 2006;28(10):873-8. PMID: 17140502
- Bomba PA. Use of a single page elder abuse assessment and management tool: a practical clinician's approach to identifying elder mistreatment. *J Gerontol Soc Work*. 2006;46(3-4):103-22. PMID: 16803779
- Bonds DE, Ellis SD, Weeks E, Lichstein P, Burke K, Posey C. Patient attitudes toward screening. *N C Med J*. 2007;68(1):23-9. PMID: 17500428
- Bonomi AE, Thompson RS, Anderson M, Rivara FP, Holt VL, Carrell D, et al. Ascertainment of intimate partner violence using two abuse measurement frameworks. *Inj Prev*. 2006;12(2):121-4. PMID: 16595428
- Bowen E, Gilchrist E, Beech AR. Change in treatment has no relationship with subsequent re-offending in U.K. domestic violence sample: a preliminary study. *Int J Offender Ther Comp Criminol*. 2008;52(5):598-614. PMID: 18505816
- Bradford K. Screening couples for intimate partner violence. *J Fam Psychother*. 2010;21(1):76-82.
- Brown K, Streubert GE, Burgess AW. Effectively detect and manage elder abuse. *Nurse Pract*. 2004;29(8):22-7. PMID: 15553915
- Brownell P, Berman J, Salamone A. Mental health and criminal justice issues among perpetrators of elder abuse. *J Elder Abuse Negl*. 1999;11:81-94. PMID: 21877986
- Bullock L, Bloom T, Davis J, Kilburn E, Curry MA. Abuse disclosure in privately and Medicaid-funded pregnant women. *J Midwifery Womens Health*. 2006;51(5):361-9. PMID: 16945784
- Bullock LF, Browning C, Geden E. Telephone social support for low-income pregnant women. *J Obstet Gynecol Neonatal Nurs*. 2002;31(6):658-64. PMID: 12465861
- Burgess AW, Roberts AR, Valentine PV. The stress-crisis continuum: its application to domestic violence. In: Roberts AR, ed. *Battered Women and Their Families: Intervention Strategies and Treatment Programs*. 3rd ed. New York: Springer; 2007: p. 133-60.

## Appendix A4. List of Excluded Studies

- Buri HM, Daly JM, Jogerst GJ. Elder abuse telephone screen reliability and validity. *J Elder Abuse Negl.* 2009;21(1):58-73. PMID: 19197621
- Calderon SH, Gilbert P, Jackson R, Kohn MA, Gerbert B. Cueing prenatal providers effects on discussions of intimate partner violence. *Am J Prev Med.* 2008;34(2):134-7. PMID: 18201643
- Campbell J, Glass N. Safety planning, danger, and lethality assessment. In: Mitchell C, Anglin D, eds. *Intimate Partner Violence: A Health-Based Perspective.* New York: Oxford University Press; 2009: p. 319-34.
- Campbell JC. Health consequences of intimate partner violence. *Lancet.* 2002;359(9314):1331-6. PMID: 11965295
- Campbell JC, Coben JH, McLoughlin E, Dearwater S, Nah G, Glass N, et al. An evaluation of a system-change training model to improve emergency department response to battered women. *Acad Emerg Med.* 2001;8(2):131-8. PMID: 11157288
- Campbell JC, Webster DW, Glass N. The danger assessment: validation of a lethality risk assessment instrument for intimate partner femicide. *J Interpers Violence.* 2009;24(4):653-74. PMID: 18667689
- Carbone-Lopez K, Kruttschnitt C, Macmillan R. Patterns of intimate partner violence and their associations with physical health, psychological distress, and substance use. *Public Health Rep.* 2006;121(4):382-92. PMID: 16827439
- Carney DM, McKibbin L. Screening for domestic violence. *Nurs Manag.* 2003;34(9):35-6. PMID: 14501530
- Carter-Visscher RM, Naugle AE, Bell KM, Suvak MK. Ethics of asking trauma-related questions and exposing participants to arousal-inducing stimuli. *J Trauma Dissociation.* 2007;8(3):27-55. PMID: 18032343
- Cattaneo LB, Bell ME, Goodman LA, Dutton MA. Intimate partner violence victims' accuracy in assessing their risk of re-abuse. *J Fam Violence.* 2007;22(6):429-40.
- Chaffin M, Funderburk B, Bard D, Valle LA, Gurwitsch R. A combined motivation and parent-child interaction therapy package reduces child welfare recidivism in a randomized dismantling field trial. *J Consult Clin Psychol.* 2011;79(1):84-95. PMID: 21171738
- Chaffin M, Silovsky JF, Funderburk B, Valle LA, Brestan EV, Balachova T, et al. Parent-child interaction therapy with physically abusive parents: efficacy for reducing future abuse reports. *J Consult Clin Psychol.* 2004;72(3):500-10. PMID: 15279533
- Chan E, Cavacuiti C. Gay Abuse Screening Protocol (GASP): screening for abuse in gay male relationships. *J Homosex.* 2008;54(4):423-38. PMID: 18826169
- Chang JC, Decker M, Moracco KE, Martin SL, Petersen R, Frasier PY. What happens when health care providers ask about intimate partner violence? A description of consequences from the perspectives of female survivors. *J Am Med Womens Assoc.* 2003;58(2):76-81. PMID: 12744419
- Chapin MG, Mackie CF. Research evidence to update practice guidelines for domestic violence screening in military settings. *Mil Med.* 2007;172(7):ii-iv. PMID: 17691676
- Chen PH, Rovi S, Vega M, Jacobs A, Johnson MS. Screening for domestic violence in a predominantly Hispanic clinical setting. *Fam Pract.* 2005;22(6):617-23. PMID: 16055473
- Chen PH, Rovi S, Washington J, Jacobs A, Vega M, Pan KY, et al. Randomized comparison of 3 methods to screen for domestic violence in family practice. *Ann Fam Med.* 2007;5(5):430-5. PMID: 17893385
- Chen W, Balaban R, Stanger V, Haruvi Ra, Zur S, Augarten A. Suspected child abuse and neglect: assessment in a hospital setting. *Isr Med Assoc J.* 2002;4(8):617-23. PMID: 12183867
- Cleary BS, Keniston A, Havranek EP, Albert RK. Intimate partner violence in women hospitalized on an internal medicine service: prevalence and relationship to responses to the review of systems. *J Hosp Med.* 2008;3(4):299-307. PMID: 18698603
- Cohen M, Halevi-Levin S, Gaglin R, Friedman G. Development of a screening tool for identifying elderly people at risk of abuse by their caregivers. *J Aging Health.* 2006;18(5):660-85. PMID: 16980634
- Cohen M, Levin SH, Gaglin R, Friedman G. Elder abuse: disparities between older people's disclosure of abuse, evident signs of abuse, and high risk of

## Appendix A4. List of Excluded Studies

- abuse. *J Am Geriatr Soc.* 2007;55(8):1224-30. PMID: 17661961
- Coker AL, Flerx VC, Smith PH, Whitaker DJ, Fadden MK, Williams M. Partner violence screening in rural health care clinics. *Am J Public Health.* 2007;97(7):1319-25. PMID: 17538065
- Coker AL, Flerx VC, Smith PH, Whitaker DJ, Fadden MK, Williams M. Intimate partner violence incidence and continuation in a primary care screening program. *Am J Epidemiol.* 2007;165(7):821-7. PMID: 17255117
- Colarossi LG, Breitbart V, Betancourt GS. Screening for intimate partner violence in reproductive health centers: an evaluation study. *Womens Health.* 2010;50(4):313-26. PMID: 20711946
- Cole TB. Is domestic violence screening helpful? *JAMA.* 2000;284(5):551-3. PMID: 10918685
- Colombini M, Mayhew S, Watts C. Health-sector responses to intimate partner violence in low- and middle-income settings: a review of current models, challenges and opportunities. *Bull World Health Organ.* 2008;86(8):635-42. PMID: 18797623
- Connelly CD, Newton RR, Aarons GA. A psychometric examination of English and Spanish versions of the Revised Conflict Tactics Scales. *J Interpers Violence.* 2005;20(12):1560-79. PMID: 16246917
- Connors NA, Whiteside-Mansell L, Deere D, Ledet T, Edwards MC. Measuring the potential for child maltreatment: the reliability and validity of the Adult Adolescent Parenting Inventory-2. *Child Abuse Negl.* 2006;30(1):39-53. PMID: 16406026
- Conrad KJ, Iris M, Ridings JW, Langley K, Wilber KH. Self-report measure of financial exploitation of older adults. *Gerontologist.* 2010;50(6):758-73. PMID: 20667945
- Constantino R, Kim Y, Crane PA. Effects of a social support intervention on health outcomes in residents of a domestic violence shelter: a pilot study. *Issues Ment Health Nurs.* 2005;26(6):575-90. PMID: 16020071
- Cooper C, Katona C, Finne-Soveri H, Topinkova E, Carpenter GI, Livingston G. Indicators of elder abuse: a crossnational comparison of psychiatric morbidity and other determinants in the Ad-HOC study. *Am J Geriatr Psychiatry.* 2006;14(6):489-97. PMID: 16731717
- Cooper C, Manela M, Katona C, Livingston G. Screening for elder abuse in dementia in the LASER-AD study: prevalence, correlates and validation of instruments. *Int J Geriatr Psychiatry.* 2008;23(3):283-8. PMID: 17621366
- Cooper C, Maxmin K, Selwood A, Blanchard M, Livingston G. The sensitivity and specificity of the modified Conflict Tactics Scale for detecting clinically significant elder abuse. *Int Psychogeriatr.* 2009;21(4):774-8. PMID: 19493378
- Coulthard P, Yong LS, Adamson L, Warburton A, Worthington HV, Esposito M, et al. Domestic violence screening and intervention programmes for adults with dental or facial injury. *Cochrane Database Syst Rev.* 2010;(12):CD004486. PMID: 21154356
- Coulthard P, Yong S, Adamson L, Warburton A, Worthington HV, Esposito M. Domestic violence screening and intervention programmes for adults with dental or facial injury. *Cochrane Database Syst Rev.* 2004(2):CD004486. PMID: 15106255
- Curry MA, Durham L, Bullock L, Bloom T, Davis J. Nurse case management for pregnant women experiencing or at risk for abuse. *J Obstet Gynecol Neonatal Nurs.* 2006;35(2):181-92. PMID: 16620243
- Curry MA, Powers LE, Oschwald M. Development of an abuse screening tool for women with disabilities. *J Aggress Maltreat Trauma.* 2003;8(4):123-41.
- Curry MA, Renker P, Hughes RB, Robinson-Whelen S, Oschwald M, Swank PR, et al. Development of measures of abuse among women with disabilities and the characteristics of their perpetrators. *Violence Against Women.* 2009;15(9):1001-25. PMID: 19622789
- Daly JM, Jogerst GJ. Readability and content of elder abuse instruments. *J Elder Abuse Negl.* 2005;17(4):31-52. PMID: 17050491
- Datner EM, O'Malley M, Schears RM, Shofer FS, Baren J, Hollander JE. Universal screening for interpersonal violence: inability to prove universal screening improves provision of services. *Eur J Emerg Med.* 2004;11(1):35-8. PMID: 15167191

## Appendix A4. List of Excluded Studies

- Datner EM, Wiebe DJ, Brensinger CM, Nelson DB. Identifying pregnant women experiencing domestic violence in an urban emergency department. *J Interpers Violence*. 2007;22(1):124-35. PMID: 17151383
- Daugherty JD, Houry DE. Intimate partner violence screening in the emergency department. *J Postgrad Med*. 2008;54(4):301-5. PMID: 18953150
- Davis RC, Taylor BG. A proactive response to family violence: the results of a randomized experiment. *Criminology*. 1997;35(2):307-33.
- DePanfilis D, Zuravin SJ. The effect of services on the recurrence of child maltreatment. *Child Abuse Negl*. 2002;26(2):187-205. PMID: 11933989
- Dichter ME, Rhodes KV. Reports of police calls for service as a risk indicator for intimate partner violence. *Acad Emerg Med*. 2009;16(1):83-6. PMID: 19007347
- Dienemann J, Glass N, Hanson G, Lunsford K. The Domestic Violence Survivor Assessment (DVSA): a tool for individual counseling with women experiencing intimate partner violence. *Issues Ment Health Nurs*. 2007;28(8):913-25. PMID: 17729174
- Dietz TL, Jasinski JL. The effect of item order on partner violence reporting: an examination of four versions of the revised Conflict Tactics Scales. *Soc Sci Res*. 2007;36(1):353-73.
- Dong X, Simon MA. Is greater social support a protective factor against elder mistreatment? *Gerontology*. 2008;54(6):381-8. PMID: 18600021
- Dong X, Simon MA. Is impairment in physical function associated with increased risk of elder mistreatment? Findings from a community-dwelling Chinese population. *Public Health Rep*. 2010;125(5):743-53. PMID: 20873291
- Dubowitz H, Prescott L, Feigelman S, Lane W, Kim J. Screening for intimate partner violence in a pediatric primary care clinic. *Pediatrics*. 2008;121(1):e85-91. PMID: 18166548
- Easton CJ, Mandel DL, Hunkele KA, Nich C, Rounsaville BJ, Carroll KM. A cognitive behavioral therapy for alcohol-dependent domestic violence offenders: an integrated substance abuse-domestic violence treatment approach (SADV). *Am J Addict*. 2007;16(1):24-31. PMID: 17364418
- Eckenrode J, Ganzel B, Henderson CR, Smith E, Olds DL, Powers J, et al. Preventing child abuse and neglect with a program of nurse home visitation: the limiting effects of domestic violence. *JAMA*. 2000;284(11):1385-91. PMID: 10989400
- Edelen MO, McCaffrey DF, Marshall GN, Jaycox LH. Measurement of teen dating violence attitudes: an item response theory evaluation of differential item functioning according to gender. *J Interpers Violence*. 2009;24(8):1243-63.
- El-Mohandes A, Kiely M, El Khorazaty N, Gantz M, Blake S, Subramanian S. Reduction of intimate partner violence in pregnancy: the effect of an integrated intervention in an African-American low income population. Pediatric Academic Societies Annual Meeting. 2005.
- El-Mohandes AA, Kiely M, Gantz MG, El-Khorazaty MN. Very preterm birth is reduced in women receiving an integrated behavioral intervention: a randomized controlled trial. *Matern Child Health J*. 2011;15(1):19-28. PMID: 20082130
- El-Mohandes AA, Kiely M, Joseph JG, Subramanian S, Johnson AA, Blake SM, et al. An integrated intervention in pregnant African-Americans reduces postpartum risk: a randomized controlled trial. *Obstet Gynecol*. 2008;112(3):611-20. PMID: 18757660
- El-Mohandes AA. A psycho-behavioral intervention on African American pregnant women with a history of intimate partner violence (IPV) improves birth weight distribution of their newborns. Pediatric Academic Societies Annual Meeting. 2006.
- Elzevier HW, Voorham-van der Zalm PJ, Pelger RC. How reliable is a self-administered questionnaire in detecting sexual abuse: a retrospective study in patients with pelvic-floor complaints and a review of literature. *J Sex Med*. 2007;4(4 Pt 1):956-63. PMID: 17627742
- Enriquez M, Cheng AL, Kelly PJ, Witt J, Coker AD, Kashubeck-West S. Development and feasibility of an HIV and IPV prevention intervention among low-income mothers receiving services in a Missouri day care center. *Violence Against Women*. 2010;16(5):560-78. PMID: 20388931
- Ergonen AT, Ozdemir MH, Can IO, Sonmez E, Salacin S, Berberoglu E, et al. Domestic violence on pregnant women in Turkey. *J Forensic Leg Med*. 2009;16(3):125-9. PMID: 19239961

## Appendix A4. List of Excluded Studies

- Erlingsson CL, Carlson SL, Saveman BI. Elder abuse risk indicators and screening questions: results from a literature search and a panel of experts from developed and developing countries. *J Elder Abuse Negl.* 2003;15(3-4):185-203.
- Ernst AA, Weiss SJ, Cham E, Hall L, Nick TG. Detecting ongoing intimate partner violence in the emergency department using a simple 4-question screen: the OVAT. *Violence Vict.* 2004;19(3):375-84. PMID: 15631287
- Escriba-Aguir V, Ruiz-Perez I, Saurel-Cubizolles MJ. Screening for domestic violence during pregnancy. *J Psychosom Obstet Gynaecol.* 2007;28(3):133-4. PMID: 17577754
- Falk DR, Shepard MF, Elliott BA. Evaluation of a domestic violence assessment protocol used by employee assistance counselors. *Employee Assistance Q.* 2002;17(3):1-15.
- Fanslow JL, Norton RN, Robinson EM, Spinola CG. Outcome evaluation of an emergency department protocol of care on partner abuse. *Aust N Z J Public Health.* 1998;22(5):598-603. PMID: 9744216
- Feder G, Ramsay J, Dunne D, Rose M, Arsene C, Norman R, et al. How far does screening women for domestic (partner) violence in different health-care settings meet criteria for a screening programme? Systematic reviews of nine UK National Screening Committee criteria. *Health Technol Assess.* 2009;13(16):iii-iv, xi-xiii, 1-113, 137-347. PMID: 19272272
- Feindler EL, Rathus JH, Silver LB. Assessment of Family Violence: A Handbook for Researchers and Practitioners. Washington, DC: American Psychological Association; 2003.
- Feindler EL, Rathus JH, Silver LB. Interview methods. In: Assessment of Family Violence: A Handbook for Researchers and Practitioners. Washington, DC: American Psychological Association; 2003: p. 63-124.
- Feindler EL, Rathus JH, Silver LB. Self-report inventories for the assessment of children. In: Assessment of Family Violence: A Handbook for Researchers and Practitioners. Washington, DC: American Psychological Association; 2003: p. 125-227.
- Feindler EL, Rathus JH, Silver LB. Self-report inventories. In: Assessment of Family Violence: A Handbook for Researchers and Practitioners. Washington, DC: American Psychological Association; 2003: p. 387-431.
- Fergusson DM, Grant H, Horwood LJ, Ridder EM. Randomized trial of the Early Start program of home visitation: parent and family outcomes. *Pediatrics.* 2006;117(3):781-6. PMID: 16510658
- Fernandez-Fuertes AA, Fuertes A, Pulido RF. Assessment of violence in adolescent couples: validation of the Conflict in Adolescent Dating Relationships Inventory (CADRI)—Spanish version. *Int J Clin Health Psychol.* 2006;6(2):339-58.
- Finn J, Atkinson T. Promoting the safe and strategic use of technology for victims of intimate partner violence: evaluation of the technology safety project. *Violence Against Women.* 2009;15(11):1402-14. PMID: 19809100
- Fleegler EW, Lieu TA, Wise PH, Muret-Wagstaff S. Families' health-related social problems and missed referral opportunities. *Pediatrics.* 2007;119(6):e1332-41. PMID: 17545363
- Fogarty CT, Brown JB. Screening for abuse in Spanish-speaking women. *J Am Board Fam Pract.* 2002;15(2):101-11. PMID: 12002193
- Foran HM, O'Leary D. Alcohol and intimate partner violence: a meta-analytic review. *Clin Psychol Rev.* 2008;28:1222-34. PMID: 18550239
- Ford-Gilboe M, Wuest J, Varcoe C, Merritt-Gray M. Developing an evidence-based health advocacy intervention for women who have left an abusive partner. *Can J Nurs Res.* 2006;38(1):147-67. PMID: 16671285
- Fraser JA, Armstrong KL, Morris JP, Dadds MR. Home visiting intervention for vulnerable families with newborns: follow-up results of a randomized controlled trial. *Child Abuse Negl.* 2000;24(11):1399-429. PMID: 11128173
- Fulfer JL, Tyler JJ, Choi NJ, Young JA, Verhulst SJ, Kovach R, et al. Using indirect questions to detect intimate partner violence: the SAFE-T questionnaire. *J Interpers Violence.* 2007;22(2):238-49. PMID: 17202578
- Fulmer T. Screening for mistreatment of older adults. *Am J Nurs.* 2008;108(12):52-9. PMID: 19033914

## Appendix A4. List of Excluded Studies

- Fulmer T, Guadagno L, Bitondo Dyer C, Connolly MT. Progress in elder abuse screening and assessment instruments. *J Am Geriatr Soc*. 2004;52(2):297-304. PMID: 14728644
- Fulmer T, Paveza G, Weerd CV, Guadagno L, Fairchild S, Norman R, et al. Neglect assessment in urban emergency departments and confirmation by an expert clinical team. *J Gerontol A Biol Sci Med Sci*. 2005;60(8):102-1006. PMID: 16127103
- Furniss K, McCaffrey M, Parnell V, Rovi S. Nurses and barriers to screening for intimate partner violence. *Am J Matern Child Nurs*. 2007;32(4):238-43. PMID: 17667289
- Gagnon AJ, Tuck J, Barkun L. A systematic review of questionnaires measuring the health of resettling refugee women. *Health Care Women Int*. 2004;25(2):111-49. PMID: 14766429
- Gielen AC, O'Campo PJ, Campbell JC, Schollenberger J, Woods AB, Jones AS, et al. Women's opinions about domestic violence screening and mandatory reporting. *Am J Prev Med*. 2000;19(4):279-85. PMID: 11064232
- Gillum TL. The benefits of a culturally specific intimate partner violence intervention for African American survivors. *Violence Against Women*. 2008;14(8):917-43. PMID: 18667406
- Gillum TL. Improving services to African American survivors of IPV: from the voices of recipients of culturally specific services. *Violence Against Women*. 2009;15(1):57-80. PMID: 19015390
- Gillum TL, Sun CJ, Woods AB. Can a health clinic-based intervention increase safety in abused women? Results from a pilot study. *J Womens Health (Larchmt)*. 2009;18(8):1259-64. PMID: 19627223
- Glowa PT, Frasier PY, Newton WP. Increasing physician comfort level in screening and counseling patients for intimate partner violence: hands-on practice. *Patient Educ Couns*. 2002;46(3):213-20. PMID: 11932119
- Glowa PT, Frazier PY, Wang L, Eaker K, Osterling WL. What happens after we identify intimate partner violence? The family physician's perspective. *Fam Med*. 2003;35(10):730-6. PMID: 14603406
- Goetz AT, Shackelford TK, Schipper LD, Stewart-Williams S. Adding insult to injury: development and initial validation of the Partner-Directed Insults Scale. *Violence Vict*. 2006;21(6):691-706. PMID: 17220014
- Goff HW, Shelton A, Byrd TL, Parcel GS. Preparedness of health care practitioners to screen women for domestic violence in a border community. *Health Care Women Int*. 2003;24(2):135-48. PMID: 12746023
- Goldbeck L, Laib-Koehnemund A, Fegert JM. A randomized controlled trial of consensus-based child abuse case management. *Child Abuse Negl*. 2007;31(9):919-33. PMID: 17870161
- Gomez-Beloz A, Williams MA, Sanchez SE, Lam N. Intimate partner violence and risk for depression among postpartum women in Lima, Peru. *Violence Vict*. 2009;24(3):380-98. PMID: 19634363
- Goodman L, Dutton MA, Vankos N, Weinfurt K. Women's resources and use of strategies as risk and protective factors for reabuse over time. *Violence Against Women*. 2005;11(3):311-36. PMID: 16043552
- Goodyear-Smith F. National screening policies in general practice: a case study of routine screening for partner abuse. *Appl Health Econ Health Policy*. 2002;1(4):197-209. PMID: 14619249
- Grafton D, Wright BL, Gutmanis I, Ralyea S. Successful implementation of universal woman abuse inquiry. *Public Health Nurs*. 2006;23(6):535-40. PMID: 17096779
- Graham-Bermann SA, Lynch S, Banyard V, DeVoe ER, Halabu H. Community-based intervention for children exposed to intimate partner violence: an efficacy trial. *J Consult Clin Psychol*. 2007;75(2):199-209. PMID: 17469878
- Grant TM, Ernst CC, Streissguth AP. An intervention with high-risk mothers who abuse alcohol and drugs: the Seattle advocacy model. *Am J Public Health*. 1996;86(12):1816-7. PMID: 9003147
- Green CE Jr. Intimate Partner Violence and Health Care Utilization: A Randomized Controlled Trial. Houston: University of Houston; 2005.
- Grietens H, Geeraert L, Hellinckx W. A scale for home visiting nurses to identify risks of physical abuse and neglect among mothers with newborn infants. *Child Abuse Negl*. 2004;28(3):321-37. PMID: 15066349

## Appendix A4. List of Excluded Studies

- Grubaugh AL, Frueh B. Intimate partner violence victimization among adults with severe mental illness: results of a cross-sectional study. *J Clin Psychiatry*. 2006;67(9):1472-3. PMID: 17017840
- Gupton S. Always believe. *Ann Emerg Med*. 2002;40(1):122-3. PMID: 12085085
- Gutmanis I, Beynon C, Tutty L, Wathen CN, MacMillan HL. Factors influencing identification of and response to intimate partner violence: a survey of physicians and nurses. *BMC Public Health*. 2007;7:12. PMID: 17250771
- Halpern LR. Orofacial injuries as markers for intimate partner violence. *Oral Maxillofac Surg Clin North Am*. 2010;22(2):239-46. PMID: 20403555
- Halpern LR, Dodson TB. A predictive model to identify women with injuries related to intimate partner violence. *J Am Dent Assoc*. 2006;137(5):604-9. PMID: 16739539
- Halpern LR, Parry BA, Hayward G, Peak D, Dodson TB. A comparison of 2 protocols to detect intimate partner violence. *J Oral Maxillofac Surg*. 2009;67(7):1453-9. PMID: 19531417
- Halpern LR, Perciaccante VJ, Hayes C, Susarla S, Dodson TB. A protocol to diagnose intimate partner violence in the emergency department. *J Trauma*. 2006;60(5):1101-5. PMID: 16688077
- Halpern LR, Susarla SM, Dodson TB. Injury location and screening questionnaires as markers for intimate partner violence. *J Oral Maxillofac Surg*. 2005;63(9):1255-61. PMID: 16897917
- Hamby S, Sugarman DB, Boney-McCoy S. Does questionnaire format impact reported partner violence rates? An experimental study. *Violence Vict*. 2006;21(4):507-18. PMID: 12408247
- Harris MH, Weber M. Providing crisis counselors on-site to victims of domestic violence in the emergency department: a report of a local pilot project. *S D J Med*. 2002;55(4):147-9. PMID: 11977868
- Hawkins JW, Pearce CW, Skeith J, Dimitruk B, Roche R. Using technology to expedite screening and intervention for domestic abuse and neglect. *Public Health Nurs*. 2009;26(1):58-69. PMID: 19154193
- Heckert D, Gondolf EW. Battered women's perceptions of risk versus risk factors and instruments in predicting repeat reassault. *J Interpers Violence*. 2004;19(7):778-800.
- Hegarty K. The health consequences of child sexual abuse and partner abuse for women attending general practice. *Aust Fam Physician*. 2003;32(9):760. PMID: 14524222
- Hegarty K, Bush R, Sheehan M. The Composite Abuse Scale: further development and assessment of reliability and validity of a multidimensional partner abuse measure in clinical settings. *Violence Vict*. 2005;20(5):529-47. PMID: 16248489
- Hegarty K, Gunn J, Chondros P, Taft A. Physical and social predictors of partner abuse in women attending general practice: a cross-sectional study. *Br J Gen Pract*. 2008;58(552):484-7. PMID: 18611314
- Hegarty KL, Bush R. Prevalence and associations of partner abuse in women attending general practice: a cross-sectional survey. *Aust N Z J Public Health*. 2002;26(5):437-42. PMID: 12413288
- Hegarty KL, Gunn JM, O'Doherty LJ, Taft A, Chondros P, Feder G, et al. Women's evaluation of abuse and violence care in general practice: a cluster randomised controlled trial (WEAVE). *BMC Public Health*. 2010;10:2. PMID: 20044929
- Heinzer MM, Krimm JR. Barriers to screening for domestic violence in an emergency department. *Holist Nurs Pract*. 2002;16(3):24-33. PMID: 11913225
- Helfritch CA, Beer DW. Use of the FirstSTEP screening tool with children exposed to domestic violence and homelessness: a group case study. *Phys Occup Ther Pediatr*. 2007;27(2):63-76. PMID: 17442655
- Helmus L, Bourgon G. Taking stock of 15 years of research on the Spousal Assault Risk Assessment Guide (SARA): a critical review. *Int J Forensic Ment Health*. 2011;10(1):64-75.
- Heron SL, Thompson MP, Jackson E, Kaslow NJ. Do responses to an intimate partner violence screen predict scores on a comprehensive measure of intimate partner violence in low-income black women? *Ann Emerg Med*. 2003;42(4):483-91. PMID: 14520319
- Herzig K, Danley D, Jackson R, Petersen R, Chamberlain L, Gerbert B. Seizing the 9-month moment: addressing behavioral risks in prenatal

## Appendix A4. List of Excluded Studies

patients. *Patient Educ Couns*. 2006;61(2):228-35. PMID: 16256291

Hewitt LN, Bhavsar P, Phelan HA. The secrets women keep: intimate partner violence screening in the female trauma patient. *J Trauma*. 2011;70(2):320-3. PMID: 21307728

Higgins LP, Hawkins JW. Screening for abuse during pregnancy: implementing a multisite program. *Am J Matern Child Nurs*. 2005;30(2):109-14. PMID: 15775806

Hiscock H, Bayer JK, Price A, Ukoumunne OC, Rogers S, Wake M. Universal parenting programme to prevent early childhood behavioural problems: cluster randomised trial. *BMJ*. 2008;336(7639):318-21. PMID: 18244958

Hokoda A, Ramos-Lira L, Celaya P, Vilhauer K, Angeles M, Ruiz S, et al. Reliability of translated measures assessing dating violence among Mexican adolescents. *Violence Vict*. 2006;21(1):117-27. PMID: 16494137

Holtrop TG, Fischer H, Gray SM, Barry K, Bryant T, Du W. Screening for domestic violence in a general pediatric clinic: be prepared! *Pediatrics*. 2004;114(5):1253-7. PMID: 15520104

Houry D, Bay L, Maddox J, Kellermann A. Arrests for intimate partner violence in female detention patients. *Am J Emerg Med*. 2005;23(1):96-7. PMID: 15672349

Houry D, Feldhaus K, Peery B, Abbott J, Lowenstein SR, al-Bataa-de-Montero S, et al. A positive domestic violence screen predicts future domestic violence. *J Interpers Violence*. 2004;19(9):955-66. PMID: 15296611

Houry D, Kaslow NJ, Kemball RS, McNutt LA, Cerulli C, Straus H, et al. Does screening in the emergency department hurt or help victims of intimate partner violence? *Ann Emerg Med*. 2008;51(4):433-42. PMID: 18313800

Houry D, Kemball RS, Click LA, Kaslow NJ. Development of a brief mental health screen for intimate partner violence victims in the emergency department. *Acad Emerg Med*. 2007;14(3):202-9. PMID: 17242384

Hsieh HF, Wang JJ, Yen M, Liu TT. Educational support group in changing caregivers' psychological elder abuse behavior toward caring for

institutionalized elders. *Adv Health Sci Educ Theory Pract*. 2009;14(3):377-86. PMID: 18516696

Humphreys J, Tsoh JY, Kohn MA, Gerbert B. Increasing discussions of intimate partner violence in prenatal care using Video Doctor plus provider cueing: a randomized, controlled trial. *Womens Health Issues*. 2011;21(2):136-44. PMID: 21185737

Hurley KF, Brown-Maher T, Campbell SG, Wallace T, Venugopal R, Baggs D. Emergency department patients' opinions of screening for intimate partner violence among women. *Emerg Med J*. 2005;22(2):97-8. PMID: 15662056

Huth-Bocks AC, Levendosky AA, Bogat G. The effects of domestic violence during pregnancy on maternal and infant health. *Violence Vict*. 2002;17(2):169-85. PMID: 12033553

Irizarry-Irizarry A. Development and validation of a questionnaire about the attitude and exposure of aged-Puerto Ricans to abuse and neglect. *P R Health Sci J*. 2008;27(2):129-33. PMID: 18616040

Ishii T, Asukai N, Kimura Y, Nagasue T, Kurosaki M, Kishimoto J. Development of the Domestic Violence Screening Inventory (DVSI) and its reliability and validity. *Seishin Igaku*. 2003;45(8):817-23.

Jack SM, Jamieson E, Wathen CN, MacMillan HL. The feasibility of screening for intimate partner violence during postpartum home visits. *Can J Nurs Res*. 2008;40(2):150-70. PMID: 18714904

Janssen P, Dascal-Weichhendler H, McGregor M. Assessment for intimate partner violence: where do we stand? *J Am Board Fam Med*. 2006;19(4):413-5. PMID: 16809657

Johnson JK, Haider F, Ellis K, Hay DM, Lindow SW. The prevalence of domestic violence in pregnant women. *BJOG*. 2003;110(3):272-5. PMID: 12628266

Johnson M, Stone S, Lou C, Ling J, Claassen J, Austin MJ. Assessing parent education programs for families involved with child welfare services: evidence and implications. *J Evid Based Soc Work*. 2008;5(1-2):191-236. PMID: 19064449

Johnson MA, Stone S, Lou C, Ling J, Claassen J, Austin MJ. Assessing Parent Education Programs for Families Involved With Child Welfare Services: Evidence and Implications. San Francisco: Bay Area

## Appendix A4. List of Excluded Studies

- Social Services Consortium, Zellerback Family Foundation; 2006.
- Jonassen JA, Mazor KM. Identification of physician and patient attributes that influence the likelihood of screening for intimate partner violence. *Acad Med.* 2003;78(10 Suppl):S20-3. PMID: 14557085
- Jones C, Bonner M. Screening for domestic violence in an antenatal clinic. *Aust J Midwifery.* 2002;15(1):14-20. PMID: 12017039
- Jones S, Davidson WS 2nd, Bogat GA, Levendosky A, von Eye A. Validation of the subtle and overt psychological abuse scale: an examination of construct validity. *Violence Vict.* 2005;20(4):407-16. PMID: 16250408
- Jory B. The Intimate Justice Scale: an instrument to screen for psychological abuse and physical violence in clinical practice. *J Marital Fam Ther.* 2004;30(1):29-44. PMID: 14763207
- Joseph JG, El-Mohandes AA, Kiely M, El-Khorazaty MN, Gantz MG, Johnson AA, et al. Reducing psychosocial and behavioral pregnancy risk factors: results of a randomized clinical trial among high-risk pregnant African American women. *Am J Public Health.* 2009;99(6):1053-61. PMID: 19372532
- Jouriles EN, McDonald R, Rosenfield D, Norwood WD, Spiller L, Stephens N, et al. Improving parenting in families referred for child maltreatment: a randomized controlled trial examining effects of Project Support. *J Fam Psychol.* 2010;24(3):328-38. PMID: 20545406
- Kataoka Y, Yaju Y, Eto H, Horiuchi S. Self-administered questionnaire versus interview as a screening method for intimate partner violence in the prenatal setting in Japan: a randomised controlled trial. *BMC Pregnancy Childbirth.* 2010;10:84. PMID: 21182802
- Katz KS, Blake SM, Milligan RA, Sharps PW, White DB, Rodan MF, et al. The design, implementation and acceptability of an integrated intervention to address multiple behavioral and psychosocial risk factors among pregnant African American women. *BMC Pregnancy Childbirth.* 2008;8(1):22. PMID: 18578875
- Kaye DK, Mirembe FM, Bantebya G, Johansson A, Ekstrom AM. Domestic violence during pregnancy and risk of low birthweight and maternal complications: a prospective cohort study at Mulago Hospital, Uganda. *Trop Med Int Health.* 2006;11(10):1576-84. PMID: 17002732
- Kaye LW, Kay D, Crittenden JA. Intervention with abused older males: conceptual and clinical perspectives. *J Elder Abuse Negl.* 2007;19(1-2):153-72. PMID: 18077275
- Kearney MH, Haggerty LA, Munro BH, Hawkins JW. Birth outcomes and maternal morbidity in abused pregnant women with public versus private health insurance. *J Nurs Scholarsh.* 2003;35(4):345-9. PMID: 14735677
- Kethineni S, Blimling L, Bozarth JM, Gaines C. Youth violence: an exploratory study of a treatment program in a central Illinois county. *Int J Offender Ther Comp Criminol.* 2004;48(6):697-720. PMID: 15538027
- Kiely M, El-Mohandes AA, El-Khorazaty MN, Gantz MG. An integrated intervention to reduce intimate partner violence in pregnancy: a randomized controlled trial. *Obstet Gynecol.* 2010;115(2 Pt 1):273-83. PMID: 20093899
- Kim J, Dubowitz H, Hudson-Martin E, Lane W. Comparison of 3 data collection methods for gathering sensitive and less sensitive information. *Ambul Pediatr.* 2008;8(4):255-60. PMID: 18644548
- Kimerling R, Gima K, Smith MW, Street A, Frayne S. The Veterans Health Administration and military sexual trauma. *Am J Public Health.* 2007;97(12):2160-6. PMID: 17971558
- Klevens J, Saltzman LE. The controversy on screening for intimate partner violence: a question of semantics? *J Womens Health.* 2009;18(2):143-5. PMID: 19183083
- Koenig LJ, Whitaker DJ, Royce RA, Wilson TE, Callahan MR, Fernandez MI, et al. Violence during pregnancy among women with or at risk for HIV infection. *Am J Public Health.* 2002;92(3):367-70. PMID: 11867312
- Kottwitz D, Bowling S. A pilot study of the Elder Abuse Questionnaire. *Kans Nurse.* 2003;78(7):4-6. PMID: 14528596
- Koziol-McLain J, Campbell JC. Universal screening and mandatory reporting: an update on two important issues for victims/survivors of intimate partner violence. *J Emerg Nurs.* 2001;27(6):602-6. PMID: 11712019

## Appendix A4. List of Excluded Studies

- Koziol-McLain J, Garrett N, Fanslow J, Hassall I, Dobbs T, Henare-Toka TA, et al. A randomized controlled trial of a brief emergency department intimate partner violence screening intervention. *Ann Emerg Med.* 2010;56(4):413-23. PMID: 20538369
- Koziol-McLain J, Giddings L, Rameka M, Fyfe E. Intimate partner violence screening and brief intervention: experiences of women in two New Zealand health care settings. *J Midwifery Womens Health.* 2008;53(6):504-10. PMID: 18984506
- Koziol-McLain J, Rameka M, Giddings L, Fyfe E, Gardiner J. Partner violence prevalence among women attending a Maori health provider clinic. *Aust N Z J Public Health.* 2007;31(2):143-8. PMID: 17461005
- Kravitz JA. The SAFE ELDERs Scales: Identifying High Risk Cases of Elder Abuse. Malibu, CA: Pepperdine University; 2007.
- Kropp P. Development of the Spousal Assault Risk Assessment Guide (SARA) and the Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER). In: Baldry AC, Winkel FW, eds. *Intimate Partner Violence Prevention and Intervention: The Risk Assessment and Management Approach.* Hauppauge, NY: Nova Science Publishers; 2008: p. 19-31.
- Kropp P, Gibas A. The Spousal Assault Risk Assessment Guide (SARA): Handbook of Violence Risk Assessment. New York: Routledge/Taylor & Francis; 2010: p. 227-50.
- Kropp PR. Intimate partner violence risk assessment and management. *Violence Vict.* 2008;23(2):202-20. PMID: 18624090
- Krugman SD, Witting MD, Furuno JP, Hirshon JM, Limcangco R, Perisse AR, et al. Perceptions of help resources for victims of intimate partner violence. *J Interpers Violence.* 2004;19(7):766-77. PMID: 15186535
- Kumar S, Jeyaseelan L, Suresh S, Ahuja RC. Domestic violence and its mental health correlates in Indian women. *Br J Psychiatry.* 2005;187:62-7. PMID: 15994573
- Lam WK, Fals-Stewart W, Kelley M. The Timeline Followback interview to assess children's exposure to partner violence: reliability and validity. *J Fam Violence.* 2009;24(2):133-43.
- Lane WG, Dubowitz H, Langenberg P. Screening for occult abdominal trauma in children with suspected physical abuse. *Pediatrics.* 2009;124(6):1595-602. PMID: 19933726
- Lau AS, Weisz JR. Reported maltreatment among clinic-referred children: implications for presenting problems, treatment attrition, and long-term outcomes. *J Am Acad Child Adolesc Psychiatry.* 2003;42(11):1327-34. PMID: 14566170
- Laughon K, Renker P, Glass N, Parker B. Revision of the Abuse Assessment Screen to address nonlethal strangulation. *J Obstet Gynecol Neonatal Nurs.* 2008;37(4):502-7. PMID: 18754989
- Leppakoski T, Astedt-Kurki P, Paavilainen E. Identification of women exposed to acute physical intimate partner violence in an emergency department setting in Finland. *Scand J Caring Sci.* 2010;24(4):638-47. PMID: 20487409
- Letarte MJ, Normandeau S, Allard J. Effectiveness of a parent training program "Incredible Years" in a child protection service. *Child Abuse Negl.* 2010;34(4):253-61. PMID: 20356626
- Lewis-O'Connor A. When push comes to shove: screening mothers for intimate partner violence during a pediatric visit. *Diss Abstr Int B Sci Eng.* 2008;68(10B):3283887.
- Liebschutz J, Battaglia T, Finley E, Averbuch T. Disclosing intimate partner violence to health care clinicians—what a difference the setting makes: a qualitative study. *BMC Public Health.* 2008;8:229. PMID: 18601725
- Loxton D, Schofield M, Hussain R. History of domestic violence and health service use among mid-aged Australian women. *Aust N Z J Public Health.* 2004;28(4):383-8. PMID: 15704705
- Lutz KF. Living two lives: a grounded theory of abuse during pregnancy. *Commun Nurs Res.* 2004;37:101-9. PMID: 15320541
- Mackay K. To screen or not to screen: identification of domestic violence in Canadian emergency departments. *CJEM.* 2008;10(4):329-32. PMID: 18652723
- MacMillan HL, Thomas BH, Jamieson E, Walsh CA, Boyle MH, Shannon HS, et al. Effectiveness of home visitation by public-health nurses in prevention of the recurrence of child physical abuse and neglect: a

## Appendix A4. List of Excluded Studies

- randomised controlled trial. *Lancet*. 2005;365(9473):1786-93. PMID: 1591095
- MacMillan HL, Wathen C. Violence against women: integrating the evidence into clinical practice. *CMAJ*. 2003;169(6):570-1. PMID: 12975225
- MacMillan HL, Wathen C, Jamieson E, Boyle M, McNutt LA, Worster A, et al. Approaches to screening for intimate partner violence in health care settings: a randomized trial. *JAMA*. 2006;296(5):530-6. PMID: 16882959
- MacMillan HL, Wathen C, Jamieson E, Boyle MH, Shannon HS, Ford-Gilboe M, et al. Screening for intimate partner violence in health care settings: a randomized trial. *JAMA*. 2009;302(5):493-501. PMID: 19654384
- Madera SR, Toro-Alfonso J. Description of a domestic violence measure for Puerto Rican gay males. *J Homosex*. 2005;50(1):155-73. PMID: 16368669
- Martin SL, Young SK, Billings DL, Bross CC. Health care-based interventions for women who have experienced sexual violence: a review of the literature. *Trauma Violence Abuse*. 2007;8(1):3-18. PMID: 17204597
- McCaw B, Bauer HM, Berman WH, Mooney L, Holmberg M, Hunkeler E. Women referred for on-site domestic violence services in a managed care organization. *Womens Health*. 2002;35(2-3):23-40. PMID: 12201508
- McClennen JC, Summers AB, Daley JG. The Lesbian Partner Abuse Scale. *Res Soc Work Pract*. 2002;12(2):277-92.
- McColgan MD, Cruz M, McKee J, Dempsey SH, Davis MB, Barry P, et al. Results of a multifaceted intimate partner violence training program for pediatric residents. *Child Abuse Negl*. 2010;34(4):275-83. PMID: 20303591
- McCord-Duncan EC, Floyd M, Kemp EC, Bailey B, Lang F. Detecting potential intimate partner violence: which approach do women want? *Fam Med*. 2006;38(6):416-22. PMID: 16741840
- McFarlane J, Greenberg L, Weltge A, Watson M. Identification of abuse in emergency departments: effectiveness of a two-question screening tool. *J Emerg Nurs*. 1995;21(5):391-4. PMID: 7500563
- McFarlane J, Hughes R, Nosek M, Groff JY, Swedland N, Mullens P. Abuse Assessment Screen-Disability (AAS-D): measuring frequency, type, and perpetrator of abuse toward women with physical disabilities. *J Womens Health Gend Based Med*. 2001;10:861-6. PMID: 11747680
- McFarlane J, Malecha A, Gist J, Watson K, Batten E, Hall I, et al. Increasing the safety-promoting behaviors of abused women. *Am J Nurs*. 2004;104(3):40-50. PMID: 15108570
- McFarlane J, Malecha A, Gist J, Watson K, Batten E, Hall I, et al. Protection orders and intimate partner violence: an 18-month study of 150 black, Hispanic, and white women. *Am J Public Health*. 2004;94(4):613-8. PMID: 15054014
- McFarlane J, Malecha A, Watson K, Gist J, Batten E, Hall I, et al. Intimate partner physical and sexual assault and child behavior problems. *Am J Matern Child Nurs*. 2007;32(2):74-80. PMID: 17356411
- McFarlane JM, Groff JY, O'Brien JA, Watson K. Behaviors of children following a randomized controlled treatment program for their abused mothers. *Issues Compr Pediatr Nurs*. 2005;28(4):195-211. PMID: 16356894
- McFarlane JM, Groff JY, O'Brien JA, Watson K. Behaviors of children exposed to intimate partner violence before and 1 year after a treatment program for their mother. *Appl Nurs Res*. 2005;18(1):7-12. PMID: 15812730
- McFarlane JM, Groff JY, O'Brien JA, Watson K. Behaviors of children who are exposed and not exposed to intimate partner violence: an analysis of 330 black, white, and Hispanic children. *Pediatrics*. 2003;112(3 Pt 1):e202-7. PMID: 12949313
- McFarlane JM, Groff JY, O'Brien JA, Watson K. Secondary prevention of intimate partner violence: a randomized controlled trial. *Nurs Res*. 2006;55(1):52-61. PMID: 16439929
- McNutt LA, Waltermaurer E, McCauley J, Campbell J, Ford DE. Rationale for and development of the computerized intimate partner violence screen for primary care. *Fam Viol Prev Health Pract*. 2005;3:1-12.
- McRae RE. The Treatment of Child Neglect Through a Comprehensive Service Strategy Including Home-Based Therapy, Play Therapy, Parent Education, and

## Appendix A4. List of Excluded Studies

- Parent-Child Interaction Therapy. San Diego: Alliant International University; 2003.
- McWhinney-Dehaney L. The Development and Psychometric Testing of the Risk for Abuse Assessment Scale and the Abuse Assessment Tool for Use in Jamaican Women. Atlanta: Emory University; 2007.
- Meeks-Sjostrom D. A comparison of three measures of elder abuse. *J Nurs Scholarsh*. 2004;36(3):247-50. PMID: 15495494
- Melendez RM, Hoffman S, Exner T, Leu CS, Ehrhardt AA. Intimate partner violence and safer sex negotiation: effects of a gender-specific intervention. *Arch Sex Behav*. 2003;32(6):499-511. PMID: 14574094
- Miccio-Fonseca L. MEGA: an ecological risk assessment tool of risk and protective factors for assessing sexually abusive children and adolescents. *J Aggress Maltreat Trauma*. 2010;19(7):734-56.
- Miller E, Decker MR, McCauley HL, Tancredi DJ, Levenson RR, Waldman J, et al. Pregnancy coercion, intimate partner violence and unintended pregnancy. *Contraception*. 2010;81(4):316-22. PMID: 20227548
- Miller E, Decker MR, McCauley HL, Tancredi DJ, Levenson RR, Waldman J, et al. A family planning clinic partner violence intervention to reduce risk associated with reproductive coercion. *Contraception*. 2011;83(3):274-80. PMID: 21310291
- Miller E, Decker MR, Raj A, Reed E, Marable D, Silverman JG. Intimate partner violence and health care-seeking patterns among female users of urban adolescent clinics. *Matern Child Health J*. 2010;14(6):910-7. PMID: 19760162
- Mills TJ, Avegno JL, Haydel MJ. Male victims of partner violence: prevalence and accuracy of screening tools. *J Emerg Med*. 2006;31(4):447-52.
- Milner JS, Gold RG. Screening spouse abusers for child abuse potential. *J Clin Psychol*. 1986;42(1):169-72. PMID: 3950003
- Moon A, Benton D. Tolerance of elder abuse and attitudes toward third-party intervention among African American, Korean American, and white elderly. *J Multicult Soc Work*. 2000;8(3):283-303.
- Moon A, Evans-Campbell T. Awareness of formal and informal sources of help for victims of elder abuse among Korean American and Caucasian elders in Los Angeles. *J Elder Abuse Negl*. 2000;11(3):1-23.
- Moon A, Lawson K, Carpiac M, Spaziano E. Elder abuse and neglect among veterans in greater Los Angeles: prevalence, types, and intervention outcomes. *J Gerontol Soc Work*. 2006;46(3-4):187-204. PMID: 16803784
- Moon A, Tomita SK, Jung-Kamei S. Elder mistreatment among four Asian American groups: an exploratory study on tolerance, victim blaming and attitudes toward third-party intervention. *J Gerontol Soc Work*. 2002;36(1):153-69.
- Moonesinghe L, Rajapaksa L, Samarasinghe G. Development of a screening instrument to detect physical abuse and its use in a cohort of pregnant women in Sri Lanka. *Asia Pac J Public Health*. 2004;16(2):138-44. PMID: 15624793
- Munoz-Rivas MJ, Rodriguez JM, Gomez JL, O'Leary DK, del Pilar Gonzalez M. Validation of the modified version of the Conflict Tactics Scale (M-CTS) in a Spanish population of youths. *Psicothema*. 2007;19(4):693-8. PMID: 17959128
- Naik AD, Teal CR, Pavlik VN, Dyer CB, McCullough LB. Conceptual challenges and practical approaches to screening capacity for self-care and protection in vulnerable older adults. *J Am Geriatr Soc*. 2008;56(Suppl 2):S266-70. PMID: 19016970
- Naumann P, Langford D, Torres S, Campbell J, Glass N. Women battering in primary care practice. *Fam Pract*. 1999;16(4):343-52. PMID: 10493703
- Neale AV, Hwalek MA, Scott RO, Sengstock MC, Stahl C. Validation of the Hwalek-Sengstock Elder Abuse Screening Test. *J Appl Gerontol*. 1991;10(4):406-18.
- Nelson CS, Higman SM, Sia C, McFarlane E, Fuddy L, Duggan AK. Medical homes for at-risk children: parental reports of clinician-parent relationships, anticipatory guidance, and behavior changes. *Pediatrics*. 2005;115(1):48-56. PMID: 1562998
- Nelson HD. Screening for domestic violence: bridging the evidence gaps. *Lancet*. 2004;364(Suppl 1):S22-3. PMID: 15967139
- Noether CD, Finkelstein N, VanDeMark NR, Savage A, Reed BG, Moses DJ. Design strengths and issues of SAMHSA's Women, Co-occurring Disorders, and

## Appendix A4. List of Excluded Studies

- Violence Study. *Psychiatr Serv.* 2005;56(10):1233-6. PMID: 16215188
- Norton IM, Schauer J. A hospital-based domestic violence group. *Psychiatr Serv.* 1997;48(9):1186-90. PMID: 9285981
- Nucero P, O'Connor P. Identification of domestic violence in the emergency department. *N J Nurse.* 2002;32(7):15. PMID: 12400198
- Nusbaum N, Cheung V, Cohen J, Keca M, Mailey B. Role of first responders in detecting and evaluating elders at risk. *Arch Gerontol Geriatr.* 2006;43(3):361-7. PMID: 16513192
- O'Campo P, Kirst M, Tsamis C, Chambers C, Ahmad F. Implementing successful intimate partner violence screening programs in health care settings: evidence generated from a realist-informed systematic review. *Soc Sci Med.* 2011;72(6):855-66. PMID: 21330026
- Ogioni L, Liperoti R, Landi F, Soldato M, Bernabei R, Onder G. Cross-sectional association between behavioral symptoms and potential elder abuse among subjects in home care in Italy: results from the Silvernet study. *Am J Geriatr Psychiatry.* 2007;15(1):70-8. PMID: 17194817
- Olds DL, Kitzman H, Cole R, Robinson J, Sidora K, Luckey DW, et al. Effects of nurse home-visiting on maternal life course and child development: age 6 follow-up results of a randomized trial. *Pediatrics.* 2004;114(6):1550-9. PMID: 15574614
- Ondersma SJ, Svikis DS, Schuster CR. Computer-based brief intervention: a randomized trial with postpartum women. *Am J Prev Med.* 2007;32(3):231-8. PMID: 17236741
- O'Reilly R, Beale B, Gillies D. Screening and intervention for domestic violence during pregnancy care: a systematic review. *Trauma Violence Abuse.* 2010;11(4):190-201. PMID: 20688785
- Oschwald M, Renker P, Hughes RB, Arthur A, Powers LE, Curry MA. Development of an accessible Audio Computer-Assisted Self-Interview (A-CASI) to screen for abuse and provide safety strategies for women with disabilities. *J Interpers Violence.* 2009;24(5):795-818. PMID: 18515785
- Owen-Smith A, Hathaway J, Roche M, Gioiella ME, Whall-Strojwas D, Silverman J. Screening for domestic violence in an oncology clinic: barriers and potential solutions. *Oncol Nurs Forum.* 2008;35(4):625-33. PMID: 18591166
- Padala PR, Madison J, Monnahan M, Marcil W, Price P, Ramaswamy S, et al. Risperidone monotherapy for post-traumatic stress disorder related to sexual assault and domestic abuse in women. *Int Clin Psychopharmacol.* 2006;21(5):275-80. PMID: 16877898
- Papadakaki M, Tzamalouka GS, Chatzifotiou S, Chliaoutakis J. Seeking for risk factors of intimate partner violence (IPV) in a Greek national sample: the role of self-esteem. *J Interpers Violence.* 2009;24(5):732-50. PMID: 18463309
- Paranjape A, Liebschutz J. STaT: a three-question screen for intimate partner violence. *J Womens Health (Larchmt).* 2003;12(3):233-9. PMID: 12804354
- Paranjape A, Rask K, Liebschutz J. Utility of STaT for the identification of recent intimate partner violence. *J Natl Med Assoc.* 2006;98(10):1663-9. PMID: 17052059
- Paranjape A, Rodriguez M, Gaughan J, Kaslow NJ. Psychometric properties of a new scale to assess family violence in older African American women: the Family Violence Against Older Women (FVOW) Scale. *Violence Against Women.* 2009;15(10):1213-26. PMID: 19710297
- Parish WL, Wang T, Laumann EO, Pan S, Luo Y. Intimate partner violence in China: national prevalence, risk factors and associated health problems. *Int Fam Plan Perspect.* 2004;30(4):174-81. PMID: 15590383
- Parkinson GW, Adams RC, Emerling FG. Maternal domestic violence screening in an office-based pediatric practice. *Pediatrics.* 2001;108(3):1-9. PMID: 11533361
- Peralta RL, Fleming MF. Screening for intimate partner violence in a primary care setting: the validity of "feeling safe at home" and prevalence results. *J Am Board Fam Pract.* 2003;16(6):525-32. PMID: 14963079
- Perciaccante VJ, Carey JW, Susarla SM, Dodson TB. Markers for intimate partner violence in the emergency department setting. *J Oral Maxillofac Surg.* 2010;68(6):1219-24. PMID: 20395028

## Appendix A4. List of Excluded Studies

- Perciaccante VJ, Susarla SM, Dodson TB. Validation of a diagnostic protocol used to identify intimate partner violence in the emergency department setting. *J Oral Maxillofac Surg.* 2010;68(7):1537-42. PMID: 20561466
- Perez-Carceles MD, Rubio L, Pereniguez JE, Perez-Flores D, Osuna E, Luna A. Suspicion of elder abuse in south eastern Spain: the extent and risk factors. *Arch Gerontol Geriatr.* 2009;49(1):132-7. PMID: 18676036
- Perez-Rojo G, Castiello MT, Jaquotot MT. Spanish contribution to international advances in the linguistic and cultural adaptation of a screening tool for elder abuse. *Rev Esp Geriatr Gerontol.* 2008;43(3):180-8. PMID: 18682135
- Peters R, Barlow J. Systematic review of instruments designed to predict child maltreatment during the antenatal and postnatal periods. *Child Abuse Review.* 2003;12(6):416-39.
- Petrucci CJ, Mills LG. Domestic violence assessment: current practices and new models for improved child welfare interventions. *Brief Treat Crisis Interv.* 2002;2(2):153-72.
- Phelan MB. Screening for intimate partner violence in medical settings. *Trauma Violence Abuse.* 2007;8(2):199-213. PMID: 17545574
- Phillips LR. Domestic violence and aging women. *Geriatr Nur.* 2000;21(4):188-93. PMID: 10945884
- Phillips LR. Abuse of aging caregivers: test of a nursing intervention. *ANS Adv Nurs Sci.* 2008;31(2):164-81. PMID: 18497592
- Phua DH, Ng TW, Seow E. Epidemiology of suspected elderly mistreatment in Singapore. *Singapore Med J.* 2008;49(10):765-73. PMID: 18946608
- Plazaola-Castano J, Ruiz-Perez I, Escriba-Aguir V, Jimenez-Martin JM, Hernandez-Torres E. Validation of the Spanish version of the Index of Spouse Abuse. *J Womens Health.* 2009;18(4):499-506. PMID: 19361317
- Plichta SB. Intimate partner violence and physical health consequences: policy and practice implications. *J Interpers Violence.* 2004;19(11):1296-323. PMID: 15534333
- Plichta SB. Interactions between victims of intimate partner violence against women and the health care system: policy and practice implications. *Trauma Violence Abuse.* 2007;8(2):226-39. PMID: 17545576
- Post LA, Klevens J, Maxwell CD, Shelley GA, Ingram E. An examination of whether coordinated community responses affect intimate partner violence. *J Interpers Violence.* 2010;25(1):75-93. PMID: 19196879
- Powers LE, Renker P, Robinson-Whelen S, Oswald M, Hughes R, Swank P, et al. Interpersonal violence and women with disabilities: analysis of safety promoting behaviors. *Violence Against Women.* 2009;15(9):1040-69. PMID: 19608856
- Bhandari M, Sprague S, Dosanjh S, Wu V, Schemitsch EH; Praise Investigators. Prevalence of Abuse and Intimate Partner Violence Surgical Evaluation (PRAISE): rationale and design of a multi-center cross-sectional study. *BMC Musculoskelet Disord.* 2010;11(77):2010. PMID: 20416039
- Pullen RL. Screening for abuse and neglect. *Nursing.* 2007;37(2):69. PMID: 17273093
- Punukollu M. Domestic violence: screening made practical. *J Fam Pract.* 2003;52(7):537-43. PMID: 12841970
- Rabin RF, Jennings JM, Campbell JC. Intimate partner violence screening tools: a systematic review. *Am J Prev Med.* 2009;36(5):439-45. PMID: 19362697
- Ramirez IL, Straus MA. The effect of question order on disclosure of intimate partner violence: an experimental test using the Conflict Tactics Scales. *J Fam Violence.* 2006;21(1):1-9.
- Ramsay C, Rivas C, Feder G. Interventions to Reduce Violence and Promote the Physical and Psychosocial Well-Being of Women Who Experience Partner Violence: A Systematic Review of Controlled Evidence. London: Queen Mary's School of Medicine and Dentistry; 2005.
- Ramsay J, Carter Y, Davidson L, Dunne D, Eldridge S, Feder G, et al. Advocacy interventions to reduce or eliminate violence and promote the physical and psychosocial well-being of women who experience intimate partner abuse. *Cochrane Database Syst Rev.* 2009(3):CD005043. PMID: 19588364

## Appendix A4. List of Excluded Studies

- Ramsay J, Richardson J, Carter YH, Davidson LL, Feder G. Should health professionals screen women for domestic violence? Systematic review. *BMJ*. 2002;325(7359):314. PMID: 12169509
- Ramsden C, Bonner M. A realistic view of domestic violence screening in an emergency department. *Accid Emerg Nurs*. 2002;10(1):31-9. PMID: 11998582
- Rathus JH, Feindler EL. Self-report measures specific to the assessment of partner abuse. In: *Assessment of Partner Violence: A Handbook for Researchers and Practitioners*. Washington, DC: American Psychological Association; 2004: p. 151-209.
- Reeves S, Wysong J. Strategies to address financial abuse. *J Elder Abuse Negl*. 2010;22(3-4):328-34. PMID: 20711918
- Regan KV, Bartholomew K, Oram D, Landolt MA. Measuring physical violence in male same-sex relationships: an item response theory analysis of the Conflict Tactics Scales. *J Interpers Violence*. 2002;17(3):235-52.
- Reichenheim ME, Klein R, Moraes CL. Assessing the physical violence component of the Revised Conflict Tactics Scales when used in heterosexual couples: an item response theory analysis. *Cad Saude Publica*. 2007;23(1):53-62. PMID: 17187104
- Reichenheim ME, Moraes CL. Comparison between the Abuse Assessment Screen and the revised Conflict Tactics Scales for measuring physical violence during pregnancy. *J Epidemiol Community Health*. 2004;58(6):523-7. PMID: 15143123
- Reid RJ, Bonomi AE, Rivara FP, Anderson ML, Fishman PA, Carrell DS, et al. Intimate partner violence among men: prevalence, chronicity, and health effects. *Am J Prev Med*. 2008;34(6):478-85. PMID: 18471583
- Reis M, Nahmiash D. Validation of the Indicators of Abuse (IOA) screen. *Gerontologist*. 1998;38(4):471-80. PMID: 9726134
- Renker PR, Tonkin P. Women's views of prenatal violence screening: acceptability and confidentiality issues. *Obstet Gynecol*. 2006;107(2 Pt 1):348-54. PMID: 16449123
- Renker PR, Tonkin P. Postpartum women's evaluations of an audio/video computer-assisted perinatal violence screen. *Comput Inform Nurs*. 2007;25(3):139-47. PMID: 17496478
- Resick PA, Galovski TE, O'Brien Uhlmansiek M, Scher CD, Clum GA, Young-Xu Y. A randomized clinical trial to dismantle components of cognitive processing therapy for posttraumatic stress disorder in female victims of interpersonal violence. *J Consult Clin Psychol*. 2008;76(2):243-58. PMID: 18377121
- Rhodes KV, Drum M, Anliker E, Frankel RM, Howes DS, Levinson W. Lowering the threshold for discussions of domestic violence: a randomized controlled trial of computer screening. *Arch Intern Med*. 2006;166(10):1107-14. PMID: 16717173
- Rhodes KV, Frankel RM, Levinthal N, Prenoveau E, Bailey J, Levinson W. "You're not a victim of domestic violence, are you?" Provider patient communication about domestic violence. *Ann Intern Med*. 2007;147(9):620-7. PMID: 17975184
- Rhodes KV, Lauderdale DS, He T, Howes DS, Levinson W. "Between me and the computer": increased detection of intimate partner violence using a computer questionnaire. *Ann Emerg Med*. 2002;40(5):476-84. PMID: 12399790
- Rhodes KV, Levinson W. Interventions for intimate partner violence against women: clinical applications. *JAMA*. 2003;289(5):601-5. PMID: 12578493
- Richard L, Gauvin L, Gosselin C, Ducharme F, Sapinski JP, Trudel M. Integrating the ecological approach in health promotion for older adults: a survey of programs aimed at elder abuse prevention, falls prevention, and appropriate medication use. *Int J Public Health*. 2008;53(1):46-56. PMID: 18522369
- Rickert VI, Davison LL, Breitbart V, Jones K, Palmetto NP, Rottenberg L, et al. A randomized trial of screening for relationship violence in young women. *J Adolesc Health*. 2009;45(2):163-70. PMID: 19628143
- Rinfret-Raynor M, Turgeon J, Dube M. A systematic screening protocol of domestic violence: measurement of efficiency. *Can J Commun Ment Health*. 2002;21(1):85-99.
- Robinson-Whelen S, Hughes RB, Powers LE, Oswald M, Renker P, Swank PR, et al. Efficacy of a computerized abuse and safety assessment intervention for women with disabilities: a randomized controlled trial. *Rehabil Psychol*. 2010;55(2):97-107. PMID: 20496965

## Appendix A4. List of Excluded Studies

- Ross J, Walther V, Epstein I. Screening risks for intimate partner violence and primary care settings: implications for future abuse. *Soc Work Health Care*. 2004;38(4):1-23. PMID: 15149903
- Runyan DK, Cox CE, Dubowitz H, Newton RR, Upadhyaya M, Kotch JB, et al. Describing maltreatment: do Child Protective Service reports and research definitions agree? *Child Abuse Negl*. 2005;29(5):461-77. PMID: 15970320
- Sadowski L. Intimate partner violence towards women. *Clin Evid (Online)*. 2009;2009. pii: 1013. PMID: 19445762
- Sanchez Y. Elder mistreatment in Mexican American communities: the Nevada and Michigan experiences. In: Tatara T, ed. *Understanding Elder Abuse in Minority Populations*. Philadelphia: Brunner/Mazel; 1999.
- Scafidi EC. *Understanding Partner Psychological Abuse and Depressive Symptoms: A New Measure and a New Theoretical Model*. New Brunswick, NJ: Rutgers University; 2007.
- Schafer SD, Drach LL, Hedberg K, Kohn MA. Using diagnostic codes to screen for intimate partner violence in Oregon emergency departments and hospitals. *Public Health Rep*. 2008;123(5):628-35. PMID: 18828418
- Schofield MJ, Mishra GD. Validity of self-report screening scale for elder abuse: Women's Health Australia study. *Gerontologist*. 2003;43(1):110-20. PMID: 12604752
- Schofield MJ, Mishra GD. Three year health outcomes among older women at risk of elder abuse: Women's Health Australia. *Qual Life Res*. 2004;13(6):1043-52. PMID: 15287271
- Schofield MJ, Reynolds R, Mishra GD, Powers JR, Dobson AJ. Screening for vulnerability to abuse among older women: Women's Health Australia study. *J Appl Gerontol*. 2002;21(1):24-39.
- Scholle SH, Buranosky R, Hanusa BH, Ranieri L, Dowd K, Valappil B. Routine screening for intimate partner violence in an obstetrics and gynecology clinic. *Am J Public Health*. 2003;93(7):1070-2. PMID: 12835182
- Schonfeld L, Larsen RG, Stiles PG. Behavioral health services utilization among older adults identified within a state abuse hotline database. *Gerontologist*. 2006;46(2):193-9. PMID: 16581883
- Schultz PN, Remick-Barlow GA, Robbins L. Equine-assisted psychotherapy: a mental health promotion/intervention modality for children who have experienced intra-family violence. *Health Soc Care Community*. 2007;15(3):265-71. PMID: 17444990
- Schwartz L, Jensen MP, Romano JM. The development and psychometric evaluation of an instrument to assess spouse responses to pain and well behavior in patients with chronic pain: the Spouse Response Inventory. *J Pain*. 2005;6(4):243-52. PMID: 15820912
- Senseman RL. Screening for intimate partner violence among gay and lesbian patients in primary care. *Clin Excell Nurse Pract*. 2002;6(4):27-32.
- Sethi D, Watts S, Zwi A, Watson J, McCarthy C. Experience of domestic violence by women attending an inner city accident and emergency department. *Emerg Med J*. 2004;21(2):180-4. PMID: 14988343
- Shackelford TK, Goetz AT. Men's sexual coercion in intimate relationships: development and initial validation of the Sexual Coercion in Intimate Relationships Scale. *Violence Vict*. 2004;19(5):541-56. PMID: 15844724
- Shakil A, Donald S, Sinacore JM, Krepcho M. Validation of the HITS domestic violence screening tool with males. *Fam Med*. 2005;37(3):193-8. PMID: 15739135
- Sharps PW, Campbell J, Baty ML, Walker KS, Bair-Merritt MH. Current evidence on perinatal home visiting and intimate partner violence. *J Obstet Gynecol Neonatal Nurs*. 2008;37(4):480-90. PMID: 18754987
- Short LM, Alpert E, Harris JM Jr, Surprenant ZJ. A tool for measuring physician readiness to manage intimate partner violence. *Am J Prev Med*. 2006;30(2):173-80. PMID: 16459217
- Short LM, Hadley SM, Bates B. Assessing the success of the WomanKind program: an integrated model of 24-hour health care response to domestic violence. *Women Health*. 2002;35(2-3):101-19. PMID: 12201502
- Short LM, Rodriguez R. Testing an intimate partner violence assessment icon form with battered migrant

## Appendix A4. List of Excluded Studies

- and seasonal farmworker women. *Women Health*. 2002;35(2-3):181-92. PMID: 12201507
- Siemieniuk RA, Krentz HB, Gish JA, Gill MJ. Domestic violence screening: prevalence and outcomes in a Canadian HIV population. *AIDS Patient Care STDS*. 2010;24(12):763-70. PMID: 21138382
- Sikkema KJ, Hansen NB, Tarakeshwar N, Kochman A, Tate DC, Lee RS. The clinical significance of change in trauma-related symptoms following a pilot group intervention for coping with HIV-AIDS and childhood sexual trauma. *AIDS Behav*. 2004;8(3):277-91. PMID: 15475675
- Silverstein MN. Factors Associated With Intimate Partner Violence During Pregnancy: An Evolutionary Feminist Approach. Denver: University of Colorado at Denver; 2003.
- Simpson LE, Atkins DC, Gattis KS, Christensen A. Low-level relationship aggression and couple therapy outcomes. *J Fam Psychol*. 2008;22(1):102-11. PMID: 18266537
- Slep AM, Heyman RE. Severity of partner and child maltreatment: reliability of scales used in America's largest Child and Family Protection Agency. *J Fam Violence*. 2004;19(2):95-106.
- Smedslund G, Dalsbo TK, Steiro A, Winsvold A, Clench-Aas J. Cognitive behavioural therapy for men who physically abuse their female partner. *Cochrane Database Syst Rev*. 2007;(3):CD006048. PMID: 17636823
- Smith CO, Thompson MP, Johnson K, Nitsche AM, Kaslow NJ. Service utilization patterns of maltreated and nonmaltreated children from low-income, African-American families. *Psychiatr Serv*. 2009;60(10):1386-9. PMID: 19797382
- Sohal H, Eldridge S, Feder G. The sensitivity and specificity of four questions (HARK) to identify intimate partner violence: a diagnostic accuracy study in general practice. *BMC Fam Pract*. 2007;8:49. PMID: 17727730
- Sormanti M, Shibusawa T. Intimate partner violence among midlife and older women: a descriptive analysis of women seeking medical services. *Health Soc Work*. 2008;33(1):33-41. PMID: 18326448
- Spangaro J, Zwi AB, Poulos R. The elusive search for definitive evidence on routine screening for intimate partner violence. *Trauma Violence Abuse*. 2009;10(1):55-68. PMID: 19056688
- Spangaro JM. The NSW Health routine screening for domestic violence program. *N S W Public Health Bull*. 2007;18(5-6):86-9. PMID: 17651662
- Spangaro JM, Zwi AB, Poulos RG. "Persist. persist.": a qualitative study of women's decisions to disclose and their perceptions of the impact of routine screening for intimate partner violence. *Psychol Violence*. 2011;1(2):150-62.
- Spangaro JM, Zwi AB, Poulos RG, Man WY. Who tells and what happens: disclosure and health service responses to screening for intimate partner violence. *Health Soc Care Community*. 2010;18(6):671-80. PMID: 20637041
- Spangaro JM, Zwi AB, Poulos RG, Man WYN. Six months after routine screening for intimate partner violence: attitude change, useful and adverse effects. *Women Health*. 2010;50(2):125-43. PMID: 20437301
- Sprecher AG, Muelleman RL, Wadman MC. A neural network model analysis to identify victims of intimate partner violence. *Am J Emerg Med*. 2004;22(2):87-9. PMID: 15011219
- Stader SR, Holmes GR, McNulty GF, Forand AQ, Myers D. Comparison of scores for abused and nonabused young adults on the Psychological Trauma and Resources Scale. *Psychol Rep*. 2004;94(2):687-93. PMID: 15154203
- Stappenbeck CA, Fals-Stewart W. Measuring intimate partner violence: a comparison of the Conflict Tactics Scale and the Timeline Followback Spousal Violence Interview. In: Morgan JP, ed. Focus on Aggression Research. Hauppauge, NY: Nova Science Publishers; 2004: p. 1-13.
- Stayton CD, Duncan MM. Mutable influences on intimate partner abuse screening in health care settings: a synthesis of the literature. *Trauma Violence Abuse*. 2005;6(4):271-85. PMID: 16217117
- Stover CS, Poole G, Marans S. The domestic violence home-visit intervention: impact on police-reported incidents of repeat violence over 12 months. *Violence Vict*. 2009;24(5):591-606. PMID: 19852401
- Straus H, Cerulli C, McNutt LA, Rhodes KV, Conner KR, Kemball RS, et al. Intimate partner violence and functional health status: associations with severity,

## Appendix A4. List of Excluded Studies

- danger, and self-advocacy behaviors. *J Womens Health*. 2009;18(5):625-31. PMID: 19445614
- Straus MA, Douglas EM. A short form of the Revised Conflict Tactics Scales, and typologies for severity and mutuality. *Violence Vict*. 2004;19(5):507-20. PMID: 15844722
- Suellentrop K, Morrow B, Williams L, D'Angelo D; Centers for Disease Control and Prevention. Monitoring progress toward achieving Maternal and Infant Healthy People 2010 objectives: 19 states, Pregnancy Risk Assessment Monitoring System (PRAMS). *MMWR Surveill Summ*. 2006;55(9):1-11. PMID: 17021594
- Sugg N. What do medical providers need to successfully intervene with intimate partner violence? *J Aggress Maltreat Trauma*. 2006;13(3-4):101-20.
- Svavarsdottir EK. Detecting intimate partner abuse within clinical settings: self-report or an interview. *Scand J Caring Sci*. 2010;24(2):224-32. PMID: 20230520
- Swan SC. A review of research on women's use of violence with male intimate partners. *Violence Vict*. 2008;23(3):301-14. PMID: 18624096
- Swenson CC, Schaeffer CM, Henggeler SW, Faldowski R, Mayhew AM. Multisystemic therapy for child abuse and neglect: a randomized effectiveness trial. *J Fam Psychol*. 2010;24(4):497-507. PMID: 20731496
- Taft A, Hegarty K, Ramsay J, Feder G, Carter Y, Davidson L, et al. Screening women for intimate partner violence in health care settings. *Cochrane Database Syst Rev*. 2009.
- Taft A, Small R, Hegarty K, Watson L, Gold L, Lumley J. Mothers' Advocates in the Community (MOSAIC)—non-professional mentor support to reduce intimate partner violence and depression in mothers: a cluster randomised trial in primary care. *BMC Public Health*. 2011;11(1):178. PMID: 21429226
- Taft AJ, Hegarty KL. Intimate partner violence against women: what outcomes are meaningful? *JAMA*. 2010;304(5):577-9. PMID: 20682943
- Taft AJ, Small R, Hegarty KL, Lumley J, Watson LF, Gold L. MOSAIC (Mothers' Advocates in the Community): protocol and sample description of a cluster randomised trial of mentor mother support to reduce intimate partner violence among pregnant or recent mothers. *BMC Public Health*. 2009;9:159. PMID: 19473534
- Taket A, Wathen CN, Macmillan H. Should health professionals screen all women for domestic violence? *PLoS Med*. 2004;1(1):e4. PMID: 15526052
- Thackeray J, Stelzner S, Downs SM, Miller C. Screening for intimate partner violence: the impact of screener and screening environment on victim comfort. *J Interpers Violence*. 2007;22(6):659-70. PMID: 17515428
- Thomas NJ, Shaffer ML, Rzucidlo S, Shirk BJ, Dias MS. Temporal factors and the incidence of physical abuse in young children: decreased nonaccidental trauma during child abuse prevention month. *J Pediatr Surg*. 2007;42(10):1735-9. PMID: 17923205
- Thombs BD, Bernstein DP, Ziegelstein RC, Bennett W, Walker EA. A brief two-item screener for detecting a history of physical or sexual abuse in childhood. *Gen Hosp Psychiatry*. 2007;29(1):8-13. PMID: 17189738
- Tilden VP, Shepherd P. Increasing the rate of identification of battered women in an emergency department: use of a nursing protocol. *Res Nurs Health*. 1987;10(4):209-24. PMID: 3503315
- Tiwari A, Fong DY, Yuen KH, Yuk H, Pang P, Humphreys J, et al. Effect of an advocacy intervention on mental health in Chinese women survivors of intimate partner violence: a randomized controlled trial. *JAMA*. 2010;304(5):536-43. PMID: 20682933
- Tiwari A, Leung WC, Leung TW, Humphreys J, Parker B, Ho PC. A randomised controlled trial of empowerment training for Chinese abused pregnant women in Hong Kong. *BJOG*. 2005;112(9):1249-56. PMID: 16101604
- Torres A, Navarro P, Garcia-Esteve L, Tarragona MJ, Ascaso C, Herreras Z, et al. Detecting domestic violence: Spanish external validation of the Index of Spouse Abuse. *J Fam Violence*. 2010;25(3):275-86. PMID: 21757210
- Trabold N. Screening for intimate partner violence within a health care setting: a systematic review of the literature. *Soc Work Health Care*. 2007;45(1):1-18. PMID: 17804344

## Appendix A4. List of Excluded Studies

- Trautman DE, McCarthy ML, Miller N, Campbell JC, Kelen GD. Intimate partner violence and emergency department screening: computerized screening versus usual care. *Ann Emerg Med.* 2007;49(4):526-34. PMID: 17276547
- Vega EM, O'Leary KD. Reaction time and item presentation factors in the self-report of partner aggression. *Violence Vict.* 2006;96(4):519-32. PMID: 16897918
- Vest JR, Catlin TK, Chen JJ, Brownson RC. Multistate analysis of factors associated with intimate partner violence. *Am J Prev Med.* 2002;22(3):156-64. PMID: 11897459
- Vivilaki VG, Dafermos V, Daglas M, Antoniou E, Tsopelas ND, Theodorakis PN, et al. Identifying intimate partner violence (IPV) during the postpartum period in a Greek sample. *Arch Womens Ment Health.* 2010;13(6):467-76. PMID: 20306211
- Vreeman RC, Carroll AE. A systematic review of school-based interventions to prevent bullying. *Arch Pediatr Adolesc Med.* 2007;161(1):78-88. PMID: 17199071
- Wahl RA, Sisk DJ, Ball TM. Clinic-based screening for domestic violence: use of a child safety questionnaire. *BMC Med.* 2004;2:25. PMID: 15228622
- Waller A, Hohenhaus S, Shah P, Stern E. Development and validation of an emergency department screening and referral protocol for victims of domestic violence. *Ann Emerg Med.* 1996;27(6):754-60. PMID: 8644964
- Waltermauer E, McNutt LA, Mattingly MJ. Examining the effect of residential change on intimate partner violence risk. *J Epidemiol Community Health.* 2006;60(11):923-7. PMID: 17053280
- Wang JJ. Psychological abuse behavior exhibited by caregivers in the care of the elderly and correlated factors in long-term care facilities in Taiwan. *J Nurs Res.* 2005;13(4):271-80. PMID: 16372238
- Wang JJ, Lin JN, Lee FP. Psychologically abusive behavior by those caring for the elderly in a domestic context. *Geriatr Nur.* 2006;27(5):284-91. PMID: 17045127
- Wang JJ, Lin MF, Tseng HF, Chang WY. Caregiver factors contributing to psychological elder abuse behavior in long-term care facilities: a structural equation model approach. *Int Psychogeriatr.* 2009;21(2):314-20. PMID: 19138458
- Wang JJ, Tseng HF, Chen KM. Development and testing of screening indicators for psychological abuse of older people. *Arch Psychiatr Nurs.* 2007;21(1):40-7. PMID: 17258108
- Wathen C, Jamieson E, MacMillan HL. Who is identified by screening for intimate partner violence? *Womens Health Issues.* 2008;18(6):423-32. PMID: 19041594
- Wathen C, MacMillan HL. Interventions for violence against women: scientific review. *JAMA.* 2003;289(5):589-600. PMID: 12578492
- Wathen CN, Jamieson E, Wilson MH, Daly M, Worster A, MacMillan HL. Risk indicators to identify intimate partner violence in the emergency department. *Open Med.* 2007;1(2):113-22. PMID: 20101295
- Wathen CN, Macmillan HL, Jamieson E. Screening for intimate partner violence. *Am J Prev Med.* 2006;31(5):453. PMID: 17046419
- Waxman HC, Houston WR, Profilet SM, Sanchez B. The long-term effects of the Houston Child Advocates, Inc., program on children and family outcomes. *Child Welfare.* 2009;88(6):23-46. PMID: 20695290
- Webster J. Screening for domestic violence: the "evidence" dilemma. *Contemp Nurse.* 2006;21(2):163-4. PMID: 16696598
- Webster J, Holt V. Screening for partner violence: direct questioning or self-report? *Obstet Gynecol.* 2004;103(2):299-303. PMID: 14754699
- Weinsheimer RL, Schermer CR, Malcoe LH, Balduf LM, Bloomfield LA. Severe intimate partner violence and alcohol use among female trauma patients. *J Trauma.* 2005;58(1):22-9. PMID: 15674145
- Weiss SJ, Ernst AA, Cham E, Nick TG. Development of a screen for ongoing intimate partner violence. *Violence Vict.* 2003;18(2):131-41. PMID: 12816400
- Wenzel JD, Monson CL, Johnson SM. Domestic violence: prevalence and detection in a family

## Appendix A4. List of Excluded Studies

- medicine residency clinic. *J Am Osteopath Assoc*. 2004;104(6):233-9. PMID: 15233329
- Wetmore M, Fairbairn CD. A regional California program to screen adolescent patients for intimate partner violence. *J Emerg Nurs*. 2003;29(4):373-6. PMID: 12874565
- Wherry JN, Graves LE, King HM. The convergent validity of the trauma symptom checklist for young children for a sample of sexually abused outpatients. *J Child Sex Abus*. 2008;17(1):38-50. PMID: 19842317
- Whitaker DJ, Haileyesus T, Swahn M, Saltzman LS. Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *Am J Public Health*. 2007;97(5):941-7. PMID: 17395835
- Whitfield CL, Anda RF, Dube SR, Felitti VJ. Violent childhood experiences and the risk of intimate partner violence in adults: assessment in a large health maintenance organization. *J Interpers Violence*. 2003;18(2):166-85.
- Wiglesworth A, Mosqueda L, Mulnard R, Liao S, Gibbs L, Fitzgerald W. Screening for abuse and neglect of people with dementia. *J Am Geriatr Soc*. 2010;58(3):493-500. PMID: 20398118
- Williams KR, Grant SR. Empirically examining the risk of intimate partner violence: the revised Domestic Violence Screening Instrument (DVSI-R). *Public Health Rep*. 2006;121(4):400-8. PMID: 16827441
- Williams TL. The Development and Validation of a Multi-Dimensional Assessment Instrument of Child Sexual Abuse Experiences. College Station, TX: Texas A&M University; 2002.
- Wolfe DA, Crooks C, Jaffe P, Chiodo D, Hughes R, Ellis W, et al. A school-based program to prevent adolescent dating violence: a cluster randomized trial. *Arch Pediatr Adolesc Med*. 2009;163(8):692-9. PMID: 19652099
- Woodman J, Pitt M, Wentz R, Taylor B, Hodes D, Gilbert RE. Performance of screening tests for child physical abuse in accident and emergency departments. *Health Technol Assess*. 2008;12(33):iii, xi-xiii, 1-95. PMID: 18992184
- Wrangle J, Fisher JW, Paranjape A. Ha sentido sola? Culturally competent screening for intimate partner violence in Latina women. *J Womens Health*. 2008;17(2):261-8. PMID: 18321177
- Wright DC, Woo WL, Muller RT, Fernandes CB, Kraftcheck ER. An investigation of trauma-centered inpatient treatment for adult survivors of abuse. *Child Abuse Negl*. 2003;27(4):393-406. PMID: 12686324
- Wu V, Huff H, Bhandari M. Pattern of physical injury associated with intimate partner violence in women presenting to the emergency department: a systematic review and meta-analysis. *Trauma Violence Abuse*. 2010;11(2):71-82. PMID: 20430799
- Yaffe MJ. Detection and reporting of elder abuse. *Fam Med*. 2010;42(2):83. PMID: 20135557
- Yaffe MJ, Wolfson C, Lithwick M, Weiss D. Development and validation of a tool to improve physician identification of elder abuse: the Elder Abuse Suspicion Index (EASI). *J Elder Abuse Negl*. 2008;20(3):276-300. PMID: 18928055
- Yoshihama M, Clum K, Crampton A, Gillespie B. Measuring the lifetime experience of domestic violence: application of the Life History Calendar method. *Violence Vict*. 2002;17(3):297-317. PMID: 12102055
- Young CA, Douglass JP. Use of, and outputs from, an assault patient questionnaire within accident and emergency departments on Merseyside. *Emerg Med J*. 2003;20(3):232-7. PMID: 12748137
- Zeitler MS, Paine AD, Breitbart V, Rickert VI, Olson C, Stevens L, et al. Attitudes about intimate partner violence screening among an ethnically diverse sample of young women. *J Adolesc Health*. 2006;39(1):e1-8. PMID: 16781970
- Zink T, Fisher BS. Family violence quality assessment tool for primary care offices. *Qual Manag Health Care*. 2007;16(3):265-79. PMID: 17627222
- Zink T, Klesges LM, Levin L, Putnam F. Abuse behavior inventory: cutpoint, validity, and characterization of discrepancies. *J Interpers Violence*. 2007;22(7):921-31. PMID: 17575069
- Zink T, Levin L, Putnam F, Beckstrom A. Accuracy of five domestic violence screening questions with nongraphic language. *Clin Pediatr*. 2007;46(2):127-34. PMID: 17325085
- Zink T, Lloyd K, Isham G, Mathews DJ, Crowson T. Applying the planned care model to intimate partner

## Appendix A4. List of Excluded Studies

violence. *Manag Care*. 2007;16(3):54-61. PMID: 17432168

Zink T, Siegel R, Chen L, Levin L, Pabst S, Putnam F. Physician knowledge and management of children exposed to domestic violence in Ohio: a comparison of pediatricians and family physicians. *Clin Pediatr (Phila)*. 2005;44(3):211-9. PMID: 15821845

Zun L. Violence prevention in the ED. *Am J Emerg Med*. 2003;21(6):454-7. PMID: 14574650

Zun LS, Downey L, Rosen J. The effectiveness of an ED-based violence prevention program. *Am J Emerg Med*. 2006;24(1):8-13. PMID: 16338502

Zun LS, Downey LV, Rosen J. Violence prevention in the ED: linkage of the ED to a social service agency. *Am J Emerg Med*. 2003;21(6):454-7. PMID: 14574650

### Studies of Screening Tests

Bair-Merritt MH, Jennings JM, Eaker K, Tuman JL, Park SM, Cheng TL. Screening for domestic violence and childhood exposure in families seeking care at an urban pediatric clinic. *J Pediatr*. 2008;152(5):734-6. PMID: 18410785

Bifulco A, Bernazzani O, Moran PM, Jacobs C. The Childhood Experience of Care and Abuse Questionnaire (CECA.Q): validation in a community series. *Br J Clin Psychol*. 2005;44(Pt 4):563-81. PMID: 16368034

Bremner J, Bolus R, Mayer EA. Psychometric properties of the Early Trauma Inventory-Self-Report. *J Nerv Ment Dis*. 2007;195(3):211-8. PMID: 17468680

Carr GD, Moretti MM, Cue BJ. Evaluating parenting capacity: validity problems with the MMPI-2, PAI, CAPI, and Ratings of Child Adjustment. *Prof Psychol Res Pr*. 2005;36(2):188-96.

Carroll JC, Reid AJ, Biringier A, Midmer D, Glazier RH, Wilson L, et al. Effectiveness of the Antenatal Psychosocial Health Assessment (ALPHA) form in detecting psychosocial concerns: a randomized controlled trial. *CMAJ*. 2005;173(3):253-9. PMID: 16076821

Cerezo MA, Pons-Salvador G. Improving child maltreatment detection systems: a large-scale case study involving health, social services, and school

professionals. *Child Abuse Negl*. 2004;28(11):1153-69. PMID: 15567021

Chaffin M, Valle LA. Dynamic prediction characteristics of the Child Abuse Potential Inventory. *Child Abuse Negl*. 2003;27(5):463-81. PMID: 12718957

Chang DC, Knight VM, Ziegfeld S, Haider A, Paidas C. The multi-institutional validation of the new screening index for physical child abuse. *J Pediatr Surg*. 2005;40(1):114-9. PMID: 15868569

DiLillo D, Hayes-Skelton SA, Fortier M, Perrya AR, Evansa SE, Messman-Moore T, et al. Development and initial psychometric properties of the Computer Assisted Maltreatment Inventory (CAMI): a comprehensive self-report measure of child maltreatment history. *Child Abuse Negl Int J*. 2010;34(5):305-14. PMID: 20347148

Feigelman S, Dubowitz H, Lane W, Prescott L, Meyer W, Tracy J, et al. Screening for harsh punishment in a pediatric primary care clinic. *Child Abuse Negl*. 2009;33(5):269-77. PMID: 19477005

Fricker AE, Smith DW, Davis JL, Hanson RF. Effects of context and question type on endorsement of childhood sexual abuse. *J Trauma Stress*. 2003;16(3):265-8. PMID: 12816339

Friedrich WN, Fisher JL, Dittner CA, Acton R, Berliner L, Butler J, et al. Child Sexual Behavior Inventory: normative, psychiatric, and sexual abuse comparisons. *Child Maltreat*. 2001;6(1):37-49. PMID: 11217169

Gully KJ. Expectations test: trauma scales for sexual abuse, physical abuse, exposure to family violence, and posttraumatic stress. *Child Maltreat*. 2003;8(3):218-29. PMID: 12934639

Harrington D, Zuravin S, DePanfilis D, Ting L, Dubowitz H. The Neglect Scale: confirmatory factor analyses in a low-income sample. *Child Maltreat*. 2002;7(4):359-68. PMID: 16248489

Hymel KP, Stoiko MA, Herman BE, Combs A, Harper NS, Lowen D, et al. Head injury depth as an indicator of causes and mechanisms. *Pediatrics*. 2010;125(4):712-20. PMID: 20351004

Kantor GK, Holt MK, Mebert CJ, Straus MA, Drach KM, Ricci LR, et al. Development and preliminary psychometric properties of the multidimensional

## Appendix A4. List of Excluded Studies

- Neglectful Behavior Scale—Child Report. *Child Maltreat.* 2004;9(4):409-28. PMID: 15538039
- Kilpatrick KL. The parental empathy measure: a new approach to assessing child maltreatment risk. *Am J Orthopsychiatry.* 2005;75(4):608-20. PMID: 16262518
- Lounds JJ, Borkowski JG, Whitman TL. Reliability and validity of the Mother-Child Neglect Scale. *Child Maltreat.* 2004;9(4):371-81. PMID: 15538036
- Melchert TP, Kalemeera A. A brief version of the Family Background Questionnaire. *Meas Eval Couns Dev.* 2009;41(4):210-22.
- Midmer D, Bryanton J, Brown R. Assessing antenatal psychosocial health: randomized controlled trial of two versions of the ALPHA form. *Can Fam Physician.* 2004;50:80-7. PMID: 14761108
- Milner JS. Medical conditions and Child Abuse Potential Inventory specificity. *Psychol Assess.* 1991;3(2):208-12.
- Milner JS, Gold RG, Ayoub C, Jacewitz MM. Predictive validity of the Child Abuse Potential Inventory. *J Consult Clin Psychol.* 1984;52(5):879-84. PMID: 6501673
- Moran PM, Bifulco A, Ball C, Jacobs C, Benaim K. Exploring psychological abuse in childhood, I: developing a new interview scale. *Bull Menninger Clin.* 2002;66(3):213-40. PMID: 12448628
- Murphy S, Orkow B, Nicola RM. Prenatal prediction of child abuse and neglect: a prospective study. *Child Abuse Negl.* 1985;9(2):225-35. PMID: 4005663
- Nilsson D, Wadsby M, Svedin CG. The psychometric properties of the Trauma Symptom Checklist for Children (TSCC) in a sample of Swedish children. *Child Abuse Negl.* 2008;32(6):627-36. PMID: 18584867
- Ondersma SJ, Chaffin MJ, Mullins SM, LeBreton JM. A brief form of the Child Abuse Potential Inventory: development and validation. *J Clin Child Adolesc Psychol.* 2005;34(2):301-11. PMID: 15901230
- Paivio SC, Cramer KM. Factor structure and reliability of the Childhood Trauma Questionnaire in a Canadian undergraduate student sample. *Child Abuse Negl.* 2004;28(8):889-904. PMID: 15350772
- Peterson L, Tremblay G, Ewigman B, Popkey C. The parental daily diary: a sensitive measure of the process of change in a child maltreatment prevention program. *Behav Modif.* 2002;26(5):627-47. PMID: 12375378
- Pierce MC, Kaczor K, Aldridge S, O'Flynn J, Lorenz DJ. Bruising characteristics discriminating physical child abuse from accidental trauma. *Pediatrics.* 2010;125(1):67-74. PMID: 19969620
- Pless IB, Sibald AD, Smith MA, Russell MD. A reappraisal of the frequency of child abuse seen in pediatric emergency rooms. *Child Abuse Negl.* 1987;11(2):193-200. PMID: 3496143
- Prosser LA, Corso PS. Measuring health-related quality of life for child maltreatment: a systematic literature review. *Health Qual Life Outcomes.* 2007;5:42. PMID: 17634122
- Reichenheim ME, Moraes CL. Psychometric properties of the Portuguese version of the Conflict Tactics Scales: Parent-child Version (CTSPC) used to identify child abuse. *Cad Saude Publica.* 2006;22(3):503-15. PMID: 16583094
- Robertson KR, Milner JS. Construct validity of the Child Abuse Potential Inventory. *J Clin Psychol.* 1983;39(3):426-9. PMID: 6874976
- Russell BS. Revisiting the measurement of shaken baby syndrome awareness. *Child Abuse Negl.* 2010;34(9):671-6. PMID: 2063872
- Salvagni EP, Wagner MB. Development of a questionnaire for the assessment of sexual abuse in children and estimation of its discriminant validity: a case-control study. *J Pediatr (Rio J).* 2006;82(6):431-6. PMID: 16951801
- Shaffer A, Huston L, Egeland B. Identification of child maltreatment using prospective and self-report methodologies: a comparison of maltreatment incidence and relation to later psychopathology. *Child Abuse Negl.* 2008;32(7):682-92. PMID: 18638626
- Thombs BD. Measurement Invariance of the Childhood Trauma Questionnaire Across Gender and Race/Ethnicity: Applications of Structural Equation Modeling and Item Response Theory. New York: Fordham University; 2005.
- Thombs BD, Bernstein DP, Lobbetael J, Arntz A. A validation study of the Dutch Childhood Trauma

## Appendix A4. List of Excluded Studies

Questionnaire–Short Form: factor structure, reliability, and known-groups validity. *Child Abuse Negl.* 2009;33(8):518-23. PMID: 19758699

Thombs BD, Bernstein DP, Ziegelstein RC, Scher CD, Forde DR, Walker EA, et al. An evaluation of screening questions for childhood abuse in 2 community samples: implications for clinical practice. *Arch Intern Med.* 2006;166(18):2020-6. PMID: 17030837

Uchison TJ. Using the CBCL to screen for maltreatment in young children. Keene, NH: Antioch New England Graduate School; 2007.

Veltman MW, Browne KD. Identifying abused children using assessments and observations in the classroom: a preliminary study. *Child Abuse Rev.* 2003;12(5):315-34.

Walsh CA, MacMillan HL, Trocme N, Jamieson E, Boyle MH. Measurement of victimization in adolescence: development and validation of the Childhood Experiences of Violence Questionnaire. *Child Abuse Negl.* 2008;32(11):1037-57. PMID: 18992940

### **Wrong Intervention (not linked to screening/risk assessment, clinic setting, or prevention)**

Barlow J, Smailagic N, Bennett C, Huband N, Jones H, Coren E. Individual and group based parenting programmes for improving psychosocial outcomes for teenage parents and their children. *Cochrane Database Syst Rev.* 2011;(5):CD002964. PMID: 21412881

Berzin SC, Cohen E, Thomas K, Dawson WC. Does family group decision making affect child welfare outcomes? Findings from a randomized control study. *Child Welfare.* 2008;87(4):35-54. PMID: 19391466

Brown SD. An investigation of trauma symptom reduction in a clinical sample of sexually abused children using the Trauma Symptom Checklist for Children. Atlanta: Georgia State University; 2008.

Cohen JA, Mannarino AP, Knudsen K. Treating sexually abused children: 1 year follow-up of a randomized controlled trial. *Child Abuse Negl.* 2005;29(2):135-45. PMID: 15734179

Conley A, Berrick JD. Community-based child abuse prevention: outcomes associated with a differential response program in California. *Child Maltreat.* 2010;15(4):282-92. PMID: 20647255

Finkelhor D. Prevention of sexual abuse through educational programs directed toward children. *Pediatrics.* 2007;120(3):640-5. PMID: 17766537

Lefever JB, Howard KS, Lanzi RG, Borkowski JG, Atwater J, Guest KC, et al. Cell phones and the measurement of child neglect: the validity of the Parent-Child Activities Interview. *Child Maltreat.* 2008;13(4):320-33. PMID: 18612039

Lobbetael J, Arntz A, Harkema-Schouten P, Bernstein D. Development and psychometric evaluation of a new assessment method for childhood maltreatment experiences: the Interview for Traumatic Events in Childhood (ITEC). *Child Abuse Negl.* 2009;33(8):505-17. PMID: 19758701

McWhirter PT. Differential therapeutic outcomes of community-based group interventions for women and children exposed to intimate partner violence. *J Interpers Violence.* 2011;26(12):2457-82. PMID: 20889533

Nagle GA. Maternal Participation, Depression and Partner Violence in a State Run Child Abuse Prevention Program: Louisiana Nurse Home Visitation 1999–2002. New Orleans: Tulane University; 2002.

Palmer S, Stalker CA, Harper K, Gadbois S. Balancing positive outcomes with vicarious traumatization: participants' experiences with group treatment for long-term effects of childhood abuse. *Soc Work Groups.* 2007;30(4):59-77.

Prinz RJ, Sanders MR, Shapiro CJ, Whitaker DJ, Lutzker JR. Population-based prevention of child maltreatment: the U.S. Triple P System Population Trial. *Prev Sci.* 2009;10(1):1-12. PMID: 19160053

Reich DB, Winternitz S, Hennen J, Watts T, Stanculescu C. A preliminary study of risperidone in the treatment of posttraumatic stress disorder related to childhood abuse in women. *J Clin Psychiatry.* 2004;65(12):1601-6. PMID: 15641864

Resick PA, Nishith P, Griffin MG. How well does cognitive-behavioral therapy treat symptoms of complex PTSD? An examination of child sexual abuse survivors within a clinical trial. *CNS Spectr.* 2003;8(5):340-55. PMID: 12766690

## Appendix A4. List of Excluded Studies

Ruch LO, Wang CH. Validation of the Sexual Assault Symptom Scale II (SASS II) using a panel research design. *J Interpers Violence*. 2006;21(11):1440-61. PMID: 17057161

Sikkema KJ, Hansen NB, Kochman A, Tarakeshwar N, Neufeld S, Meade CS, et al. Outcomes from a group intervention for coping with HIV/AIDS and childhood sexual abuse: reductions in traumatic stress. *AIDS Behav*. 2007;11(1):49-60. PMID: 16858634

Smith N, Lam D, Bifulco A, Checkley S. Childhood Experience of Care and Abuse Questionnaire (CECA.Q): validation of a screening instrument for childhood adversity in clinical populations. *Soc Psychiatry Psychiatr Epidemiol*. 2002;37(12):572-9. PMID: 12545234

Thomas R, Zimmer-Gembeck MJ. Accumulating evidence for parent-child interaction therapy in the prevention of child maltreatment. *Child Dev*. 2011;82(1):177-92. PMID: 21291436

Timmer SG, Urquiza AJ, Zebell NM, McGrath JM. Parent-child interaction therapy: application to maltreating parent-child dyads. *Child Abuse Negl*. 2005;29(7):825-42. PMID: 16051355

Tourigny M, Hebert M, Daigneault I, Simoneau AC. Efficacy of a group therapy for sexually abused adolescent girls. *J Child Sex Abus*. 2005;14(4):71-93. PMID: 16354649

Wallis DA. Reduction of trauma symptoms following group therapy. *Aust N Z J Psychiatry*. 2002;36(1):67-74. PMID: 11929440

### Wrong Outcome

Ayoub CC, Milner JS. Failure to thrive: parental indicators, types, and outcomes. *Child Abuse Negl*. 1985;9(4):491-9. PMID: 4084828

Barr RG, Barr M, Fujiwara T, Conway J, Catherine N, Brant R. Do educational materials change knowledge and behavior about crying and shaken baby syndrome? A randomized controlled trial. *CMAJ*. 2009;180(7):727-33. PMID: 19255065

Connors NA, Whiteside-Mansell L, Deere D, Ledet T, Edwards MC. Measuring the potential for child maltreatment: the reliability and validity of the Adult Adolescent Parenting Inventory-2. *Child Abuse Negl*. 2006;30(1):39-53. PMID: 16406026

Crouch JL, Skowronski JJ, Milner JS, Harris B. Parental responses to infant crying: the influence of child physical abuse risk and hostile priming. *Child Abuse Negl*. 2008;32:702-10. PMID: 18606450

DiLillo D, DeGue S, Kras A, Di Loreto-Colgan AR, Nash C. Participant responses to retrospective surveys of child maltreatment: does mode of assessment matter? *Violence Vict*. 2006;21(4):410-24. PMID: 16897910

DiLillo D, Tremblay GC, Peterson L. Linking childhood sexual abuse and abusive parenting: the mediating role of maternal anger. *Child Abuse Negl*. 2000;24(6):767-79. PMID: 10888017

Duggan A, Fuddy L, Burrell L, Higman SM, McFarlane E, Windham A, et al. Randomized trial of a statewide home visiting program to prevent child abuse: impact in reducing parental risk factors. *Child Abuse Negl*. 2004;28(6):625-45. PMID: 15193852

Duggan A, Fuddy L, McFarlane E, Burrell L, Windham A, Higman S, et al. Evaluating a statewide home visiting program to prevent child abuse in at-risk families of newborns: fathers' participation and outcomes. *Child Maltreat*. 2004;9(1):3-17. PMID: 14870994

Eckenrode J, Campa M, Luckey DW, Henderson CR, Cole R, Kitzman H, et al. Long-term effects of prenatal and infancy nurse home visitation on the life course of youths: 19-year follow-up of a randomized trial. *Arch Pediatr Adolesc Med*. 2010;164(1):9-15. PMID: 20048236

Katz C, Hershkowitz I. The effects of drawing on children's accounts of sexual abuse. *Child Maltreat*. 2010;15(2):171-9. PMID: 19926626

Kitzman H, Olds DL, Cole RE, Hanks CA, Anson EA, Arcoleo KJ, et al. Enduring effects of prenatal and infancy home visiting by nurses on children: follow-up of a randomized trial among children at age 12 years. *Arch Pediatr Adolesc Med*. 2010;164(5):412-8. PMID: 20439792

Kosterman R, Hawkins JD, Haggerty KP, Spoth R, Redmond C. Preparing for the drug free years: session-specific effects of a universal parent-training intervention with rural families. *J Drug Educ*. 2001;31(1):47-68. PMID: 11338965

Lane WG, Dubowitz H. Primary care pediatricians' experience, comfort and competence in the evaluation and management of child maltreatment:

## Appendix A4. List of Excluded Studies

do we need child abuse experts? *Child Abuse Negl.* 2009;33(2):76-83. PMID: 19278726

McCurdy K. Risk assessment in child abuse prevention programs. *Soc Work Res.* 1995;19(2):77-87.

McGuigan WM, Katzev AR, Pratt CC. Multi-level determinants of retention in a home-visiting child abuse prevention program. *Child Abuse Negl.* 2003;27(4):363-80. PMID: 12686322

Moss E, Dubois-Comtois K, Cyr C, Tarabulsky GM, St-Laurent D, Bernier A. Efficacy of a home-visiting intervention aimed at improving maternal sensitivity, child attachment, and behavioral outcomes for maltreated children: a randomized control trial. *Dev Psychopathol.* 2011;23(1):195-210. PMID: 21262048

Olds DL, Robinson J, O'Brien R, Luckey DW, Pettitt LM, Henderson CR, et al. Home visiting by paraprofessionals and by nurses: a randomized, controlled trial. *Pediatrics.* 2002;110(3):486-96. PMID: 12205249

Olds DL, Robinson J, Pettitt L, Luckey DW, Holmberg J, Ng RK, et al. Effects of home visits by paraprofessionals and by nurses: age 4 follow-up results of a randomized trial. *Pediatrics.* 2004;114(6):1560-8. PMID: 15574615

Pruitt DL, Erickson MT. The Child Abuse Potential Inventory: a study of concurrent validity. *J Clin Psychol.* 1985;41(1):104-11. PMID: 3973031

Reynolds AJ, Temple JA, Ou SR, Robertson DL, Mersky JP, Topitzes JW, et al. Effects of a school-based, early childhood intervention on adult health and well-being: a 19-year follow-up of low-income families. *Arch Pediatr Adolesc Med.* 2007;161(8):730-9. PMID: 17679653

Rodriguez ML, Dumont K, Mitchell-Herzfeld SD, Walden NJ, Greene R. Effects of Healthy Families New York on the promotion of maternal parenting competencies and the prevention of harsh parenting. *Child Abuse Negl.* 2010;34(10):711-23. PMID: 20850872

Russa MB, Rodriguez CM. Physical discipline, escalation, and child abuse potential: psychometric evidence for the Analog Parenting Task. *Aggress Behav.* 2010;36(4):251-60. PMID: 20540158

Savell JK, Kinder BN, Young MS. Effects of administering sexually explicit questionnaires on

anger, anxiety, and depression in sexually abused and nonabused females: implications for risk assessment. *J Sex Marital Ther.* 2006;32(2):161-72. PMID: 16418106

Thombs BD, Bennett W, Ziegelstein RC, Bernstein DP, Scher CD, Forde DR. Cultural sensitivity in screening adults for a history of childhood abuse: evidence from a community sample. *J Gen Intern Med.* 2007;22(3):368-73. PMID: 17356970

Tyrka AR, Price LH, Kao HT, Porton B, Marsella SA, Carpenter LL. Childhood maltreatment and telomere shortening: preliminary support for an effect of early stress on cellular aging. *Biol Psychiatry.* 2010;67(6):531-4. PMID: 19828140

Zelenko MA, Huffman LC, Brown BW, Daniels K, Lock J, Kennedy Q, et al. The Child Abuse Potential Inventory and pregnancy outcome in expectant adolescent mothers. *Child Abuse Negl.* 2001;25:1481-95. PMID: 11766012

Zielinski DS, Eckenrode J, Olds DL. Nurse home visitation and the prevention of child maltreatment: impact on the timing of official reports. *Dev Psychopathol.* 2009;21(2):441-53. PMID: 19338692

### Wrong Study Design

Bradshaw JM. Preventing Shaken Baby Syndrome: A Comparison of Two Parent Education Programs. Storrs-Mansfield: University of Connecticut; 2011.

Dias MS, Smith K, DeGuehery K, Mazur P, Li V, Shaffer ML. Preventing abusive head trauma among infants and young children: a hospital-based, parent education program. *Pediatrics.* 2005;115(4):e470-7. PMID: 15805350

Eckenrode J, Powers J, Olds D, Kitzman H, Cole R. Long-term effects of early home visitation on rates of state-verified cases of child abuse and neglect. *Pediatr Res.* 1996;39.

Margolis PA, Stevens R, Bordley WC, Stuart J, Harlan C, Keyes-Elstein L, et al. From concept to application: the impact of a community-wide intervention to improve the delivery of preventive services to children. *Pediatrics.* 2001;108(3):e42. PMID: 11533360

Mercier CE, Barry SE, Paul K, Delaney TV, Horbar JD, Wasserman RC, et al. Improving newborn preventive services at the birth hospitalization: a collaborative, hospital-based quality-improvement

## Appendix A4. List of Excluded Studies

project. *Pediatrics*. 2007;120(3):481-8. PMID: 17766519

### No Primary Data, Editorial, Nonsystematic Review

American Medical Association. Policy Compendium. Accessed at [http://www.ama-assn.org/ama1/pub/upload/mm/386/vio\\_policy\\_comp.pdf](http://www.ama-assn.org/ama1/pub/upload/mm/386/vio_policy_comp.pdf).

Anderson CL. The Parenting Profile Assessment: screening for child abuse. *Appl Nurs Res*. 1993;6(1):31-8. PMID: 8439176

Barr RG, Runyan D. Inflicted childhood neurotrauma: the problem set and challenges to measuring incidence. *Am J Prev Med*. 2008;34(Suppl 1):S106-11. PMID: 18374258

Barth RP. Preventing with parent training: evidence and opportunities. *Future Child*. 2009;19(2):95-118. PMID: 19719024

Donelan-McCall N, Eckenrode J, Olds DL. Home visiting for the prevention of child maltreatment: lessons learned during the past 20 years. *Pediatr Clin North Am*. 2009;56(2):389-403. PMID: 19358923

Dubowitz H. Tackling child neglect: a role for pediatricians. *Pediatr Clin North Am*. 2009;56(2):363-78. PMID: 19358921

Edleson JL, Ellerton AL, Seagren EA, Kirchberg SL, Schmidt SO, Ambrose AT. Assessing child exposure to adult domestic violence. *Child Youth Serv Rev*. 2007;29(7):961-71.

Edwards A, Lutzker JR. Iterations of the SafeCare model: an evidence-based child maltreatment prevention program. *Behav Modif*. 2008;32(5):736-56. PMID: 18441332

Futures Without Violence. National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings. Accessed at <http://www.futureswithoutviolence.org/userfiles/file/Consensus.pdf>.

Hayward S. Nurse home visits reduced child abuse and neglect over a 15 year period. *Evid Based Nurs*. 1998;1(3):77.

Howard KS, Brooks-Gunn J. The role of home-visiting programs in preventing child abuse and neglect. *Future Child*. 2009;19(2):119-46. PMID: 19719025

Hulme PA. Retrospective measurement of childhood sexual abuse: a review of instruments. *Child Maltreat*. 2004;9(2):201-17. PMID: 15104889

Hulme PA. Psychometric evaluation and comparison of three retrospective, multi-item measures of childhood sexual abuse. *Child Abuse Negl*. 2007;31(8):853-69. PMID: 17825410

Klevens J, Whitaker DJ. Primary prevention of child physical abuse and neglect: gaps and promising directions. *Child Maltreat*. 2007;12(4):364-77. PMID: 17954942

Korfmacher J. The Kempe Family Stress Inventory: a review. *Child Abuse Negl*. 2000;24(1):129-40. PMID: 10660015

Krugman SD, Lane WG, Walsh CM. Update on child abuse prevention. *Curr Opin Pediatr*. 2007;19(6):711-8. PMID: 18025942

LeCroy CW, Krysik J. Measurement issues in home visitation: a research note. *Child Youth Serv Rev*. 2010;32(10):1483-6.

Lock TG, Levis DJ, Rourke PA. The Sexual Abuse Questionnaire: a preliminary examination of a time and cost efficient method in evaluating the presence of childhood sexual abuse in adult patients. *J Child Sex Abus*. 2005;14(1):1-26. PMID: 15914402

MacMillan HL, Wathen CN, Barlow J, Fergusson DM, Leventhal JM, Taussig HN. Interventions to prevent child maltreatment and associated impairment. *Lancet*. 2009;373:250-66. PMID: 19056113

Marcellus L. The ethics of relation: public health nurses and child protection clients. *J Adv Nurs*. 2005;51(4):414-20. PMID: 16086810

Midmer D, Carroll J, Bryanton J, Stewart D. From research to application: the development of an antenatal psychosocial health assessment tool. *Can J Public Health*. 2002;93(4):291-6. PMID: 12154533

Mowat A. Toolkit will help GPs detect children at risk of abuse. *Practitioner*. 2008;252(1706):5. PMID: 18575383

## Appendix A4. List of Excluded Studies

Newton AW, Vandeven AM. Child abuse and neglect: a worldwide concern. *Curr Opin Pediatr.* 2010;22:226-33. PMID: 20164772

Olds DL. Prenatal and infancy home visiting by nurses: from randomized trials to community replication. *Pediatrics.* 2002;3(3):153-72. PMID: 12387552

Olds DL, Sadler L, Kitzman H. Programs for parents of infants and toddlers: recent evidence from randomized trials. *J Child Psychol Psychiatry.* 2007;48(3-4):355-91. PMID: 17355402

Ondersma SJ, Chaffin MJ, Mullins SM, LeBreton JM. "A brief form of the Child Abuse Potential Inventory: development and validation": erratum. *J Clin Child Adolesc Psychol.* 2006;35(4):598. PMID: 15901230

Proeve M. Issues in the application of Bayes' theorem to child abuse decision making. *Child Maltreat.* 2009;14(1):114-20. PMID: 18495947

Reynolds AJ, Mathieson LC, Topitzes JW. Do early childhood interventions prevent child maltreatment? A review of research. *Child Maltreat.* 2009;14(2):182-206. PMID: 19240245

Russell BS, Britner PA, Woolard JL. The promise of primary prevention home visiting programs: a review of potential outcomes. *J Prev Interv Community.* 2007;34(1-2):129-47. PMID: 17890197

Scribano PV. Prevention strategies in child maltreatment. *Curr Opin Pediatr.* 2010;22(5):616-20. PMID: 20829692

Shapiro CJ, Prinz RJ, Sanders MR. Population-based provider engagement in delivery of evidence-based parenting interventions: challenges and solutions. *J Prim Prev.* 2010;31(4):223-34. PMID: 20195773

Strand VC, Sarmiento TL, Pasquale LE. Assessment and screening tools for trauma in children and adolescents: a review. *Trauma Violence Abuse.* 2005;6(1):55-78. PMID: 15574673

Strecher V, Wang C, Derry H, Wildenhaus K, Johnson C. Tailored interventions for multiple risk behaviors. *Health Educ Res.* 2002;17(5):619-26. PMID: 12408206

Walker CA, Davies J. A critical review of the psychometric evidence base of the Child Abuse

Potential Inventory. *J Fam Violence.* 2010;25(2):215-27.

Walsh C, Jamieson E, MacMillan H, Trocme N. Measuring child sexual abuse in children and youth. *J Child Sex Abus.* 2004;13(1):39-68. PMID: 15353376

### Risk Factor, Association, or Prevalence Study

Adams BL. Assessment of child abuse risk factors by advanced practice nurses. *Pediatr Nurs.* 2005;31(6):498-502. PMID: 16411545

Blackburn JF. Reading Skills in Children Exposed to Domestic Violence. Bloomington, IN: Indiana University; 2006.

Castelda BA, Levis DJ, Rourke PA, Coleman SL. Extension of the Sexual Abuse Questionnaire to other abuse categories: the initial psychometric validation of the Binghamton Childhood Abuse Screen. *J Child Sex Abus.* 2007;16(1):107-25. PMID: 17255079

Chang DC, Knight V, Ziegfeld S, Haider A, Warfield D, Paidas C. The tip of the iceberg for child abuse: the critical roles of the pediatric trauma service and its registry. *J Trauma.* 2004;57(6):1189-98. PMID: 15625449

Dubowitz H, Kim J, Black MM, Weisbart C, Semiati J, Magder LS. Identifying children at high risk for a child maltreatment report. *Child Abuse Negl.* 2011;35(2):96-104. PMID: 21376396

Ekeus C, Christensson K, Hjern A. Unintentional and violent injuries among pre-school children of teenage mothers in Sweden: a national cohort study. *J Epidemiol Community Health.* 2004;58:680-5. PMID: 15252071

Lee LC, Kotch J, Cox C. Child maltreatment in families experiencing domestic violence. *Violence Vict.* 2004;19(5):573-91. PMID: 15844726

McDonald R, Jouriles EN, Tart CD, Minze LC. Children's adjustment problems in families characterized by men's severe violence toward women: does other family violence matter? *Child Abuse Negl.* 2009;33(2):94-101. PMID: 19303141

Negggers Y, Goldenberg R, Cliver S, Hauth J. Effects of domestic violence on preterm birth and low birth weight. *Acta Obstet Gynecol Scand.* 2004;83(5):455-60. PMID: 15059158

## Appendix A4. List of Excluded Studies

- Palazzi S, de Girolamo G, Liverani T; IchilMa (Italian Child Maltreatment Study Group). Observational study of suspected maltreatment in Italian paediatric emergency departments. *Arch Dis Child*. 2005;90(4):406-10. PMID: 15781934
- Pulido ML, Gupta D. Protecting the child and the family: integrating domestic violence screening into a child advocacy center. *Violence Against Women*. 2002;8(8):917-33.
- Reijneveld SA, de Meer G, Wiefferink CH, Crone MR. Detection of child abuse by Dutch preventive child-healthcare doctors and nurses: has it changed? *Child Abuse Negl*. 2008;32(9):831-7. PMID: 18945489
- Reynolds AJ, Robertson DL. School-based early intervention and later child maltreatment in the Chicago Longitudinal Study. *Child Dev*. 2003;74(1):3-26. PMID: 12625433
- Reynolds AJ, Temple JA, Ou SR. School-based early intervention and child well-being in the Chicago Longitudinal Study. *Child Welfare*. 2003;82(5):633-56. PMID: 14524429
- Roy CA, Perry JC. Instruments for the assessment of childhood trauma in adults. *J Nerv Ment Dis*. 2004;192(5):343-51. PMID: 15126888
- Storer E. Identifying Mothers at Risk for Child Abuse Through the Development of a Maternal Prenatal Assessment Instrument. San Francisco: Alliant International University; 2003.
- Strathearn L, Mamun AA, Najman JM, O'Callaghan MJ. Does breastfeeding protect against substantiated child abuse and neglect? A 15-year cohort study. *Pediatrics*. 2009;123(2):483-93. PMID: 9171613
- Theodore A, Chang JJ, Runyan D. Measuring the risk of physical neglect in a population-based sample. *Child Maltreat*. 2007;12(1):96-105. PMID: 17218651
- Weberling LC, Forgays DK, Crain-Thoreson C, Hyman I. Prenatal child abuse risk assessment: a preliminary validation study. *Child Welfare*. 2003;82(3):319-34. PMID: 12769394
- 2005;50(8):497-504. PMID: 16127968
- Bair-Merritt MH, Blackstone M, Feudtner C. Physical health outcomes of childhood exposure to intimate partner violence: a systematic review. *Pediatrics*. 2006;117(2):e278-90. PMID: 16452335
- Bilukha O, Hahn RA, Crosby A, Fullilove MT, Liberman A, Moscicki E, et al. The effectiveness of early childhood home visitation in preventing violence: a systematic review. *Am J Prev Med*. 2005;28(Suppl1):11-39. PMID: 15698746
- Geeraert L, Van den Noortgate W, Grietens H, Onghena P. The effects of early prevention programs for families with young children at risk for physical child abuse and neglect: a meta-analysis. *Child Maltreat*. 2004;9(3):277-91. PMID: 15245680
- Hahn RA, Bilukha OO, Crosby A, Fullilove MT, Liberman A, Moscicki EK, et al. First reports evaluating the effectiveness of strategies for preventing violence: early childhood home visitation. Findings from the Task Force on Community Preventive Services. *MMWR Recomm Rep*. 2003;52(RR14):1-9. PMID: 14566220
- Harding K, Galano J, Martin J, Huntington L, Schellenbach CJ. Healthy Families America effectiveness: a comprehensive review of outcomes. *J Prev Interv Community*. 2007;34(1-2):149-79. PMID: 17890198
- Hodnett ED, Roberts I. Home-based social support for socially disadvantaged mothers. *Cochrane Database Syst Rev*. 2000;(2):CD000107. PMID: 10796694
- Louwers EC, Affourtit MJ, Moll HA, de Koning HJ, Korffage IJ. Screening for child abuse at emergency departments: a systematic review. *Arch Dis Child*. 2010;95(3):214-8. PMID: 19773222
- Lundahl BW, Nimer J, Parsons B. Preventing child abuse: a meta-analysis of parent training programs. *Res Soc Work Pract*. 2006;16(3):251-62.
- Macdonald G, Bennett C, Dennis JA, Coren E, Patterson J, Astin M, et al. Home-based support for disadvantaged teenage mothers. *Cochrane Database Syst Rev*. 2007;(3):CD006723. PMID: 17636849
- Ramchandani P, Jones DP. Treating psychological symptoms in sexually abused children: from research findings to service provision. *Br J Psychiatry*. 2003;183:484-90. PMID: 14645018

## Appendix A4. List of Excluded Studies

Shah PS, Shah J; Knowledge Synthesis Group on Determinants of Preterm Low Birth Weight Births. Maternal exposure to domestic violence and pregnancy and birth outcomes: a systematic review and meta-analyses. *J Womens Health (Larchmt)*. 2010;19(11):2017-31. PMID: 20919921

Spinks A, Turner C, Nixon J, McClure RJ. The “WHO Safe Communities” model for the prevention of injury in whole populations. *Cochrane Database Syst Rev*. 2009;(3):CD004445. PMID: 19588359

Sweet MA, Appelbaum MI. Is home visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Dev*. 2004;75(5):1435-56. PMID: 15369524

### **Trials Excluded for Poor Quality**

Armstrong KL, Fraser JA, Dadds MR, Morris J. A randomized, controlled trial of nurse home visiting to vulnerable families with newborns. *J Paediatr Child Health*. 1999;35(3):237-44. PMID: 10404442

Hardy JB, Streett R. Family support and parenting education in the home: an effective extension of clinic-based preventive health care services for poor children. *J Pediatr*. 1989;115(6):927-31. PMID: 2585229

Krysiak J, LeCroy CW. The evaluation of Healthy Families Arizona: a multisite home visitation program. *J Prev Interv Community*. 2007;34(1-2):109-27. PMID: 17890196

Larson CP. Efficacy of prenatal and postpartum home visits on child health and development. *Pediatrics*. 1980;66(2):191-7. PMID: 7402804

Starn JR. Community health nursing visits for at-risk women and infants. *J Community Health Nurs*. 1992;9(2):103-10. PMID: 1624977

Stevens-Simon C, Nelligan D, Kelly L. Adolescents at risk for mistreating their children, II: a home- and clinic-based prevention program. *Child Abuse Negl*. 2001;25(6):753-69. PMID: 11525524

## Randomized Controlled Trials (RCTs) and Cohort Studies

### *Criteria:*

- Initial assembly of comparable groups: RCTs—adequate randomization, including concealment and whether potential confounders were distributed equally among groups; cohort studies—consideration of potential confounders with either restriction or measurement for adjustment in the analysis; consideration of inception cohorts
- Maintenance of comparable groups (includes attrition, cross-overs, adherence, contamination)
- Important differential loss to follow-up or overall high loss to follow-up
- Measurements: equal, reliable, and valid (includes masking of outcome assessment)
- Clear definition of interventions
- Important outcomes considered
- Analysis: adjustment for potential confounders for cohort studies, or intention-to-treat analysis for RCTs; for cluster RCTs, correction for correlation coefficient

### *Definition of ratings based on above criteria:*

- Good:** Meets all criteria: Comparable groups are assembled initially and maintained throughout the study (follow-up at least 80 percent); reliable and valid measurement instruments are used and applied equally to the groups; interventions are spelled out clearly; important outcomes are considered; and appropriate attention to confounders in analysis.
- Fair:** Studies will be graded “fair” if any or all of the following problems occur, without the important limitations noted in the “poor” category below: Generally comparable groups are assembled initially but some question remains whether some (although not major) differences occurred in follow-up; measurement instruments are acceptable (although not the best) and generally applied equally; some but not all important outcomes are considered; and some but not all potential confounders are accounted for.
- Poor:** Studies will be graded “poor” if any of the following major limitations exists: Groups assembled initially are not close to being comparable or maintained throughout the study; unreliable or invalid measurement instruments are used or not applied at all equally among groups (including not masking outcome assessment); and key confounders are given little or no attention.

## Case Control Studies

### *Criteria:*

- Accurate ascertainment of cases
- Nonbiased selection of cases/controls with exclusion criteria applied equally to both
- Response rate
- Diagnostic testing procedures applied equally to each group
- Measurement of exposure accurate and applied equally to each group
- Appropriate attention to potential confounding variable

## Appendix A5. U.S. Preventive Services Task Force Quality Rating Criteria

### *Definition of ratings based on criteria above:*

- Good:** Appropriate ascertainment of cases and nonbiased selection of case and control participants; exclusion criteria applied equally to cases and controls; response rate equal to or greater than 80 percent; diagnostic procedures and measurements accurate and applied equally to cases and controls; and appropriate attention to confounding variables.
- Fair:** Recent, relevant, without major apparent selection or diagnostic work-up bias but with response rate less than 80 percent or attention to some but not all important confounding variables.
- Poor:** Major selection or diagnostic work-up biases, response rates less than 50 percent, or inattention to confounding variables.

**Source:** Harris et al, 2001<sup>57</sup>

## **Appendix A6. Expert Reviewers of the Draft Report**

### **Joseph Chin, MD, MS**

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Behavioral Scientist, Centers for Disease Control and Prevention

### **Robert A. Hahn, PhD, MPH**

Coordinating Scientist, Centers for Disease Control and Prevention

### **Harriet L. MacMillan, MD, MSc, FRCP(C)**

Professor, Psychiatry and Behavioural Neurosciences and Pediatrics, McMaster University

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Study	Study Design	N	Population	Setting	Duration
<b>Clinic-Based Interventions</b>						
Dubowitz et al, 2009 <sup>67</sup>	NA	RCT	558 (Intervention [308], Control [250])	93% black 48% female Mothers mean age 25 years Children: 0–5 years	University-based pediatric primary care resident continuity clinic serving a low-income urban population in Baltimore	3 years (duration of sampling); June 2002 to November 2005
<b>Home Visitation Interventions</b>						
<b>Elmira Study*</b>						
Olds, 1986 <sup>77*</sup>	Elmira	RCT	400	Pregnant women with no previous live births 47% age <19 years 62% unmarried 89% white and 11% black 61% semi-skilled and unskilled laborers 23% met all of the above risk factors	Prenatal clinics in Elmira, New York (small, semi-rural county of 100,000 residents in Appalachian region of New York)	Pregnancy through age 2 of child
Olds et al, 1994 <sup>78*</sup>	Elmira	RCT	Same as above	Same as above	Same as above; however, families dispersed to 14 other states	Pregnancy through age 4 of child
Eckenrode et al, 2000 <sup>79*</sup>	Elmira	RCT	324 families	For this analysis, groups 1 and 2 were combined (N=184) and considered the comparison group. Group 4 (N=116) was considered the treatment group. Group 3 (N=24) was not discussed because it did not differ from the control group	Same as above	Pregnancy through age 15 of child
<b>Memphis Study</b>						
Kitzman et al, 1997 <sup>80*</sup>	Memphis	RCT	1139: 1) 166 2) 515 3) 230 4) 228	92% black women 64% age <18 years 85% at or below the federal poverty level	Public obstetric clinic in Memphis, Tennessee	Prenatal through 2 years
Olds et al, 2007 <sup>68</sup>	Memphis	RCT	Same as above	92% black women 98% unmarried 64% age <18 years at registration 85% from households below the federal poverty line	Public obstetric clinic in Memphis, Tennessee	Prenatal through 9 years
<b>Other Studies</b>						
Barlow et al, 2007 <sup>69</sup>	Family Partnership Model	RCT	Enrolled: 131 Analyzed: 121	94% white 17% working 20% age <17 years 30% no higher educational/vocational qualifications 61% poverty 61% history of mental health issues 52% housing concerns 35% unwanted pregnancy 34% current domestic violence	United Kingdom	18 months
Barth et al, 1991 <sup>81*</sup>	Child Parent Enrichment Program	RCT	Intervention: 97 Control: 94	Pregnant women 45% white, 31% Latino, 17% black, 7% other Median age 23.5 years 70% family income <\$10,000 90% scored above the mean on CAPI	Referrals from various agencies; California, United States	~6 months

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Study	Study Design	N	Population	Setting	Duration
Bugental et al, 2002 <sup>82*</sup>	Cognitive Interventions	RCT	96 families (73 completed)	Children born at medical risk 97% Latino 48% no husband or partner 50% of mothers were abused as children Average education 7.8 years (SD, 3.1) Average age of mothers 25.5 years	Referrals from physicians to program; Santa Barbara County, California	1 year
Bugental et al, 2009 <sup>39</sup>	Cognitive Interventions	Comparative intervention trial (no control group)	110 families (102 completed)	87% Latino Mean age at intake 9.37 weeks (SD, 5.50) Sample was relatively low risk for child maltreatment, according to scores on Family Stress Checklist (M=19)	Santa Barbara County, California	1 year
Duggan et al, 2004 <sup>70</sup> (same as Duggan et al, 1999 <sup>83</sup> )	Hawaii's Healthy Start Program	RCT	643	Intervention vs. control: Mean age 23.7 vs. 23.3 years 63% vs. 67% household income below poverty level 34% vs. 33% Native Hawaiian or Pacific Islander; 28% vs. 28% Asian or Filipino; 10% vs. 14% white; 27% vs. 26% no primary ethnicity or unknown 43% vs. 50% poor maternal general mental health 19% vs. 23% maternal substance use 43% vs. 52% domestic violence	Hawaii, hospital obstetrical unit	3 years
Duggan et al, 2007 <sup>71</sup>	Healthy Families Alaska	RCT	364	Mean age 23.5 years 21% Alaska Native; 55% white; 9% multiracial 58% mother graduated from high school 58% below poverty level 49% partner violence 44% poor psychological resources 57% depressive symptoms 56% maternal substance use	Alaska	2 years
DuMont et al, 2008 <sup>72</sup>	Healthy Families New York	RCT	1173: Intervention: 579 Control: 594	34% white, 45% black, 18% Latina 31% age <19 years 54% first-time mothers 53% not completed high school 82% never married	University of Albany, New York	2 years
El-Mohandes et al, 2003 <sup>75</sup>	NA	RCT	286: Intervention: 146 Control: 140 Loss to followup at 1 year: 41.6%	Mothers receiving no or inadequate prenatal care 98.6% black 54.9% at least high school education 60.1% below poverty level 93% unwanted pregnancy 28% smoked during pregnancy, 19.9% drank alcohol, 12.9% used illicit substances	Washington, DC area hospitals	1 year
Fergusson et al, 2005 <sup>73</sup>	Early Start Program	RCT	4523 families screened 588 families eligible 433 families enrolled	Mean age 24.5 years 26% Maori 70% lacked educational qualifications 30% assaulted by current partner 89% welfare dependent 81% unplanned pregnancy	New Zealand	3 years

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Study	Study Design	N	Population	Setting	Duration
Fraser et al, 2000 <sup>84</sup> (same as Armstrong et al, 1999 <sup>60</sup> )	NA	RCT	181	41.4% married 40.1% single parent 41.1% high school education or more 7.2% self-reported domestic violence 12.2% self-reported abused as child	Royal Womens Hospital, Brisbane, Queensland Australia	1 year
Koniak-Griffin et al, 2003 <sup>76</sup>	Early Intervention Program	RCT	101	Mean age 16.7 years Mean gestational age 20.48 weeks 63% Latina, 13% black, 18% nonHispanic white, 4% other 57% history of childhood physical abuse 12% suicide attempt within the previous year	Community Health Services Division of the County Health Department of San Bernadino, California	2 years
Lowell et al, 2011 <sup>74</sup>	Child First	RCT	157: Child First Intervention: 78 Usual Care: 79	59% Latina/Hispanic; 30% black 33% married 25% with high school degree/GED 64% unemployed	Connecticut	3 years
Siegel et al, 1980 <sup>85*</sup>	NA	RCT	Groups 1) 107 2) 50 3) 53 Control: 111	Pregnant women 25% white; 75% minority Mean age 21 years 33% currently married Mean years of education: 11	Greensboro, North Carolina	3rd trimester of pregnancy through 12 months

Author, Year	Screening Assessment	Recruitment	Inclusion Criteria
<b>Clinic-Based Interventions</b>			
Dubowitz et al, 2009 <sup>67</sup>	Parent Screening Questionnaire	Parents approached by residents	Parents who brought their child ages 0–5 years to a health supervision visit, spoke English, did not have another child in the study, or have the child in foster care
<b>Home Visitation Interventions</b>			
<b>Elmira Study*</b>			
Olds, 1986 <sup>77*</sup>	Interviews of mothers were made at registration in the project and at 6, 10, 12, 22, and 24 months of the infant's life. Babies were measured and weighed at 6, 12, and 24 months, administered developmental tests (Bayley Scale at 12 months, Cattell Scales at 24 months) and an infant temperament Q-sort procedure at 6 months. The Caldwell Home Observation checklist and interview procedure was completed when the infants were ages 10 and 22 months. Outcomes were determined by review of records for the presence of verified cases of abuse or neglect from the department of social services, emergency room visits, and other medical visits.	Recruited through: - Health department antepartum clinic - Obstetrician's offices - Planned Parenthood - Public schools - Variety of other health and human services agencies	Pregnant women (before 30th week) with no previous live births and one of the below risk factors: - Young age (<19 years) - Single-parent status - Low socioeconomic status  However, any woman who asked to participate bearing a first child was enrolled
Olds et al, 1994 <sup>78*</sup>	Same as above (Olds 1986a). In addition, interviews and observational assessments were conducted at 34, 36, 46, and 48 months, including the Caldwell and Bradley Home Inventory and a home hazards inventory. CPS and medical records were reviewed across the various states until the child reached the age of 4 years.	Families in the original study were contacted	Same as above

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Screening Assessment	Recruitment	Inclusion Criteria
Eckenrode et al, 2000 <sup>79*</sup>	15-year followup data included mother interviews using a life-history calendar, information on life factors, violence subscales of the Conflict Tactics Scales (measure of domestic violence in the home), and reports of major and minor violence. CPS records were examined for New York and for each state where the families resided.	Families in the original study were contacted, if possible; 49 mother-child pairs were ineligible at the 15-year followup due to child death (n=26), mother death (n=2), child adopted (n=15), and refusal to participate (n=6); 81% of the original sample included and 92% of those eligible for followup	Same as above
<b>Memphis Study</b>			
Kitzman et al, 1997 <sup>80*</sup>	Medical records were reviewed for pregnancy outcomes, ingestions, children's injuries, and immunizations; mothers' reports of children's behavioral problems; child mental development (Bayley Scales, Child Behavior Checklist); mothers' report of demographic characteristics, beliefs about children associated with child abuse and neglect, physical punishment; and state records of use of welfare. The HOME Scale was used during home visits.	Eligibility determined at the obstetric care clinic	Pregnant women <29 weeks' gestation, no previous live births, no chronic illnesses, at least 2 sociodemographic risk characteristics (unmarried, <12 years of education, unemployment status).
Olds et al, 2007 <sup>88</sup>	Same as above	Same as above	Same as above
<b>Other Studies</b>			
Barlow et al, 2007 <sup>89</sup>	Mother-infant interaction was assessed at 12 months on the basis of a 3-min video recording and coded for maternal sensitivity and infant cooperativeness using the CARE Index. Maternal psychopathy was assessed at 6 and 12 months. Parenting attitudes and competence were assessed at 6 and 12 months using the Adult Adolescent Parenting Inventory. Parenting competence /confidence and experiences were measured at 12 months using the Parenting Sense of Competence scale and What Being the Parent of a Baby is Like. Infant development was assessed independently at 12 months. Validation unclear.	Community midwives in United Kingdom attached to 40 participating general practitioner practices across 2 counties.	Midwives screened women using a range of demographic and socioeconomic criteria (e.g., mental health problems or housing problems)
Barth et al, 1991 <sup>81*</sup>	2-hr initial assessment interview served as pretest for both groups. Posttest given at 6 months or when the child was age 4 months included: self-report of mother's well-being, CAPI, Community Resources Use Scale, prenatal care, birth outcomes, child temperament, child welfare and neglect, review of medical records, and reports of child abuse and removal from home obtained from county social service records.	Pregnant women referred by 19 public health, education, or social service professionals working in 17 different agencies or health offices.	Pregnant or postpartum women at high risk for engaging in child abuse. Two or more positive responses to a list of criteria determined eligibility for the study.
Bugental et al, 2002 <sup>82*</sup>	Preliminary Screening Questionnaire and Family Stress Checklist used to identify at-risk families. Child risk of abuse determined by birth records (Apgar score <9 and premature status of >3 weeks). Postprogram measures included: Conflict Tactics Scale, a self-report measure, to measure harsh parenting (physical abuse and legally nonabusive use of force), and a subset (n=28) were verified against the Social Desirability Scale of the Toddler Behavior Assessment Questionnaire;interview with parents about frequency of child injuries, illness, and feeding problems; a variety of cognitive measures such as the Parent Attribution Test, graphic depiction of perceived power, State-Trait Anxiety Inventory, Beck Depression Inventory, and Social Provisions Scale. All measures were translated to Spanish, some verbally administered.	Families were referred to the program by physicians (obstetricians and pediatricians), social workers, and public health nurses.	Mothers who were identified late during pregnancy or soon after birth to be at moderate risk (scores of 25–40 on Family Stress Checklist) to become abusive were eligible to participate.

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Screening Assessment	Recruitment	Inclusion Criteria
Bugental et al, 2009 <sup>39</sup>	Measures were retrospective measures (some translated to Spanish, some verbally administered) over the past year conducted postprogram (baseline measures were not possible due to child's age at intake): Conflict Tactics Scale to measure abuse and corporate punishment (spanking); Framingham Safety Survey (safety neglect, household hazards); Child Injury Survey (safety neglect and frequency of falls, cuts, and burns); and perceived power (size of mother's self-drawings, taken at intake and followup).	Same as above	Same as above. Also, presence of a medical risk factor: preterm status <36 weeks' gestational age (n=48), medical problem (e.g., respiratory or cardiac problems) (n=59), other reason (e.g., Cesarean delivery) (n=40). Parental risk was not considered in the referral. Child included up to age 6 months.
Duggan et al, 2004 <sup>70</sup> (same as Duggan et al, 1999 <sup>63</sup> )	Kempe's Family Stress Checklist for screening; Revised Conflict Tactics Scale for outcome. Validation: Factor analysis of the Conflict Tactics Scale items. Reports to CPS, medical record review, mother self-report.	Referred by prenatal care providers but most families screened and assessed at the hospital when children were born.	HSP staff or hospital staff review the mother's medical record and if it suggests risk (or there is too little information to assess risk), staff conduct a semistructured interview with the mother using Kempe's Family Stress Checklist (postive score ≥25). If HSP home visiting intake is open in the family's community, the family is invited to enroll. If intake is closed, the family is referred to other community resources.
Duggan et al, 2007 <sup>71</sup>	Kempe's Family Stress Checklist. Validation: unclear. Reports to CPS for suspected child maltreatment.	DHHS administers HFAK through grants to local agencies and an agreement with Public Health Nursing (1 site). HFAK uses a protocol to identify at-risk families.	HFAK staff identified at-risk families using their usual protocol. Families who screen positive are assessed for risk using Kempe's Family Stress Checklist. Families scoring ≥25 are eligible for HFAK.
DuMont et al, 2008 <sup>72</sup>	Kempe Family Stress Checklist used to identify parents at high risk of abuse, who were offered participation in the HFNY program.	Recruited by a Family Assessment Worker.	Women in catchment area, English speaking, have custody of child.
El-Mohandes et al, 2003 <sup>75</sup>	Baseline assessment of demographic factors, reproductive history, use of prenatal care, drug and alcohol use, and infant health at delivery.	Enrolled during postpartum hospitalization, using delivery logs to identify eligbe women.	Mothers residing in Washington, DC, having <5 prenatal care visits or initiating first visit in third trimester, at least age 18 years, English speaking, no history of psychiatric illness, not institutionalized, and not planning to give child up for adoption. Exclude: mothers of infants delivered before 34 weeks' gestation, birth weight <1500 grams, or birth with congenital abnormalities.
Fergusson et al, 2005 <sup>73</sup>	11-point screening measure based on Hawaii HSP; once in program then Kempe's Family Stress Checklist given. Validation: at 36 months, parents administered Child Rearing Practices Report and the Adult-Adolescent Parenting Inventory; factor analysis showed adequate reliability for nonpunitive parenting scales ( $\alpha=0.77$ ). Child health (immunizations, hospital visits), child abuse, parenting skills, parental health, family economic well-being, and partnerships assessed at baseline, 6, 12, 24, and 36 months.	Plunket community nurses in Christchurch urban region screened all new clients using an 11-point measure based on Hawaii HSP.	Nurse population screening: age of parents, social support, pregnancy planning, substance use, family finances, family violence. Refer if 2 or more risk factors present.
Fraser et al, 2000 <sup>34</sup> (same as Armstrong et al, 1999 <sup>60</sup> )	Self-report questionnaire to determine use of health services. Various other outcomes assessed.	By child health nurse at hospital.	Birth of one live-born infant. Excluded those with poor literary skills, as written self-report measures are required. Self-reported vulnerability.

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Screening Assessment	Recruitment	Inclusion Criteria
Koniak-Griffin et al, 2003 <sup>76</sup>	Self-report questionnaires assessing background factors, sexual history, past and current substance use, educational goals, and social competence.	Referral by Community Health Services Department.	Adolescents ages 14–19 years, ≤26 weeks' gestation, having their first child, planning to keep the child. Exclude: narcotic or injection drug dependent, having a documented serious medical or obstetric problem.
Lowell et al, 2011 <sup>74</sup>	Either child or adult could qualify for inclusion of the family in the trial: Child: Brief Infant-Toddler Social and Emotional Assessment Parent: Parent Risk Questionnaire	Families recruited from 2 sites that served predominantly inner-city families living in poverty: a) Bridgeport Hospital Prediatric Primary Care Center and b) Supplementary Nutrition Program for Women, Infants, and Children	Children ages 6–36 months who screened positive for social-emotional/behavioral problems on the Brief Infant-Toddler Social and Emotional Assessment and/or parent screened high for psychosocial risk on the Parent Risk Questionnaire.
Siegel et al, 1980 <sup>85*</sup>	Data was collected by interview during the last trimester of pregnancy, and by interview and observation in the home at 4 and 12 months post delivery. Hospital and health agency records were also reviewed. Measures: 92-item Attachment Inventory, Peabody Picture Vocabulary Test.	Women in their third trimester who received care at the public prenatal clinic and delivered at the community hospital.	Criteria include: uncomplicated pregnancy at the third trimester, no previous delivery of nonviable infant; not expecting twins; intended to stay in the area for ≥1 year; did not have a family member in the study.

Author, Year	Intervention	Results	Quality Rating
<b>Clinic-Based Interventions</b>			
Dubowitz et al, 2009 <sup>67</sup>	The SEEK Model included: 1) specially trained residents, including handouts for doctors and patients 2) administration of the Parent Screening Questionnaire 3) a social worker	CPS reports: 3.3% vs. 19.2%; p=0.03 Fewer instances of nonadherence to medical care: 4.6% vs. 8.4%; p=0.05 Less delayed immunizations: 3.3% vs. 9.6%; p=0.002 Fewer reported instances of severe or very severe physical assault (average weighted score on Conflict Tactics Scale, Parent-Child version): 0.11 vs. 0.33; p=0.04 Less delayed immunizations (from medical charts): 3.3% vs. 9.6%; p=0.002 Fewer instances of nonadherence to medical care (from medical charts): 4.6% vs. 8.4%; p=0.05	Fair
<b>Home Visitation Interventions</b>			
<b>Elmira Study*</b>			
Olds, 1986 <sup>77*</sup>	Random assignment to one of four groups: 1) No services control (n=90) 2) Free transportation to clinic appointments (n=94) 3) Same as group 2, plus nurse home visits every 2 weeks during pregnancy; average of 9 visits during pregnancy lasting 1.5 hours per visit (n=100) 4) Same as group 3, with nurse home visits until child is age 2 years. Visit frequency diminished over time (n=116). Nurse home visitation included parent education, enhancement of informal support systems, and linkage with community services	CPS reports: Higher risk subgroup (poor, unmarried teenagers): 4% vs. 19% confirmed reports of abuse/neglect, p=0.07 Entire sample: No difference Emergency Department visits: Intervention children had fewer visits to the emergency room in first and second year of life (p<0.05 and p<0.01, respectively) and presented with fewer accidents and poisonings at 2 years of age (p<0.05)	Good
Olds et al, 1994 <sup>8*</sup>	Same as above	New cases of child abuse/neglect, whole sample: No difference; OR, 0.56 (95% CI, 0.00 to 1.37) Nurse-visited children made 35% fewer visits to the ED than controls (p=0.0008) Mean number of hospitalizations: 0.14 vs. 0.11; p=NS Poisonous substances ingested (p=NS)	Good

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Intervention	Results	Quality Rating
Eckenrode et al, 2000 <sup>79*</sup>	Same as above	Incidence rate for substantiated child maltreatment reports involving mother as perpetrator: 0.32 vs. 0.65, p=0.01 Incidence rate for substantiated reports involving the study child as subject: 0.44 vs. 0.73; p=0.04 The intervention group receiving nurse-visited home visitation only during pregnancy (Group 3) did not differ in number of child maltreatment reports from the control group (p=NS). Home visitation had no impact on the incidence of domestic violence (p=NS); however, there were fewer cases of child maltreatment among mothers who reported $\leq 28$ incidents of domestic violence (79% of sample) in the home-visited group (Group 4) versus the control group (p=0.01)	Good
<b>Memphis Study</b>			
Kitzman et al, 1997 <sup>80*</sup>	<ol style="list-style-type: none"> <li>1) Transportation to clinic</li> <li>2) Same as group 1 plus developmental screening and referral services at 6, 12, and 24 months</li> <li>3) Same as groups 1 and 2 plus 3 intensive home visitations</li> <li>4) Same as groups 1, 2, and 3 plus intensive home visitation services through age 2 years</li> </ol>	<p>Adjusted incidence of ED visits for injuries/ingestions during first 2 years of life: 0.33 vs. 0.34; p=NS</p> <p>Adjusted incidence of ED visits for injuries/ingestions: 0.33 vs. 0.34; p=NS</p> <p>Adjusted incidence of hospitalizations for injuries/ingestions: 0.01 vs. 0.03; p=NS</p> <p>Days hospitalized for injuries/ingestions: 7 vs. 879 days; p=0.001</p> <p>Diagnoses for hospitalizations: 1 burn and 2 ingestions vs. 4 burns, 2 head traumas, 2 fractured skulls, 2 bilateral subdural hematomas, 2 other fractures, 1 strangulated hernia, 1 suspected abuse, 1 coin ingestion, 1 finger injury.</p> <p>Nurse-visited children had fewer health care encounters related to injuries/ingestions in the first 2 years compared with comparison groups (p=0.05), with the most effect for outpatient encounters (p=0.02). By the 24th month, nurse-visited women held fewer beliefs about child-rearing associated with child abuse and neglect (p=0.003); Bayley Mental Development Score at 24 months: 94.5, nurse-visited group, 94.3, comparison group (NS).</p> <p>Immunizations: 70% vs. 68%; p=NS</p> <p>Mean number of well-child visits (0–24 months): 4.6 vs. 4.8; p=NS</p>	Fair
Olds et al, 2007 <sup>88</sup>	<ol style="list-style-type: none"> <li>1) Transportation to clinic</li> <li>2) Same as group 1 plus developmental screening and referral services at 6, 12, and 24 months</li> <li>3) Same as groups 1 and 2 plus 3 intensive home visitations</li> <li>4) Same as groups 1, 2, and 3 plus intensive home visitation services through age 2 years</li> </ol>	Child mortality: 1 vs. 10 deaths; OR, 0.22 (95% CI, 0.03 to 1.74); p=0.08	Fair
<b>Other Studies</b>			
Barlow et al, 2007 <sup>89</sup>	<ol style="list-style-type: none"> <li>1) Control</li> <li>2) 18 months of weekly visits from a health visitor trained in understanding the processes of helping, skills of relating to parents effectively, and methods of promoting parent-infant interaction using the Family Partnership Mode</li> </ol>	<p>Increased placement on child protection register or care proceedings for those in the intervention group: RR, 2.02 (95% CI, 0.46–2.54); p=NS</p> <p>Child protection issues: 17% vs. 15%; p=NS</p> <p>Removal of child from home: 6% (4/68) vs. 0% (0/63); p=NS</p> <p>Proportion of admissions to hospital (maternal report): 8.1% vs. 14.3%; RR, 1.38 (95% CI, 0.68 to 2.8)</p> <p>One child died in the control group “for whom child protection concerns were raised”</p>	Fair
Barth et al, 1991 <sup>81*</sup>	<ol style="list-style-type: none"> <li>1) Control group received referrals to social and health services</li> <li>2) Intervention group had home visits; average of 11 visits</li> </ol>	<p>CPS reports:</p> <p>Increase in number of unsubstantiated reports: 13 vs. 10 families; p=NS</p> <p>Increase in number of substantiated reports: 10 vs. 13 families; p=NS</p> <p>Increase in number of unsubstantiated reports: 20 vs. 41 total reports; p=NS</p> <p>Increase in number of substantiated reports: 19 vs. 5 total reports; p=NS</p>	Fair

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Intervention	Results	Quality Rating
Bugental et al, 2002 <sup>82*</sup>	Cognitive-based extension of the HSP home visitation program (n=32–35) vs. standard HSP home visitation program (n=31–34) vs. control condition (n=27–35). The additional cognitive appraisal component was designed to enhance parents' perceptions of power and competence, and included reframing in primary and secondary appraisals. Specifically, parents were assisted in acquiring skills in reading children's cues of distress and countering misattributional processes, and provided with problem-solving training in which they define the problem, brainstorm possible solutions, evaluate possible consequences, develop an action plan, and observe and evaluate the success of their efforts. Home visitors were matched to cultural backgrounds of participants. Weekly supervision and monitoring occurred from a licensed clinical psychologist. Over the first year of life of the child, there were 17 home visits.	Frequency of harsh parenting or physical abuse or spanking/slapping (mean): HV plus cognitive, 0.06 vs. HV standard, 0.23 vs. control, 0.25; $F(2, 70)=3.20$ ; $p=0.05$ High-risk infants: HV plus cognitive group, 0.07 (SD, 0.20) vs. HV standard/control, 0.42 (SD, 0.44); $p<0.05$ Low-risk infants: HV plus cognitive group, 0.06 (SD, 0.14) vs. HV standard/control, 0.17 (SD, 0.28); $p=NS$	Fair
Bugental et al, 2009 <sup>39</sup>	Cognitive-based extension of the HSP home visitation program (n=51) vs. standard HSP home visitation program (n=59). No control group. Details of intervention abstracted in Bugental 2002.	Physical abuse (infants): 4% HV plus cognitive vs. 5% HV standard (not possible to allow a reliable statistical comparison due to low percentages) Mean injury score (infants): 3.29 HV plus cognitive vs. 3.39 HV standard; $F(1, 96)=3.94$ ; $p=0.05$	Fair
Duggan et al, 2004 <sup>70</sup> (same as Duggan et al, 1999 <sup>83</sup> )	Home visits for 3–5 years by trained paraprofessionals to provide assistance, education, and services; model effective parent-child interaction; ensure child has medical home. Level 1: visited weekly; Level 2: biweekly; Level 3: monthly; Level 4: quarterly, with explicit criteria for promotion; intervention was for 1, 2, or 3 years.	CPS reports: no difference; $p=0.56$ Placement in foster care: 1.8% vs. 0.8%; $p=NS$ Ever used ED, first 2 years of life (Duggan, 1999): 58% vs. 60%; $p=0.69$ Ever hospitalized for any reason in first 2 years of life (Duggan, 1999): 19% vs. 22%; $p=0.44$ Trauma admissions among patients with complete hospitalization data: 1.5% vs. 1.7%; $p=NS$ Ambulatory care sensitive conditions among patients with complete hospitalization data: 12% vs. 10%; $p=0.39$ Immunizations up to date (Duggan, 1999): 87% vs. 85%; $p=0.45$ Adequate number of well-child visits (Duggan, 1999): 60% vs. 59%; $p=0.95$ Groups similar in abuse and neglect. 12, 22, and 23 mothers assigned to the HSP group reported both frequent and severe abusive behavior in years 1, 2, and 3, respectively. Of families receiving a high dose of HSP services, 3, 8, and 5 mothers reported both frequent and severe abusive behavior in years 1, 2, and 3, respectively.	Fair
Duggan et al, 2007 <sup>71</sup>	Home visiting for 3–5 years, offered weekly for the first 6–9 months; families are promoted to service levels with less frequent visits as family functioning improves. Home visitation includes information, referrals, preparation of parents for developmental milestones, promotion of child environmental safety, and encouragement of positive parent-child interaction.	CPS reports: no difference; $p=0.59$ ED visits in first 2 years of life: 81% vs. 78%; $p=0.42$ Child hospitalized for ambulatory care sensitive conditions: 9% vs. 9%; $p=0.80$ Using CPS reports, pediatric medical records, interviews with primary caregiver, observation of the home environment and interaction with the child: no difference in HV and control groups in rates for substantiated or overall reports of child maltreatment. Intervention and control groups did not differ in frequency of hospitalizations and ED visits. From maternal report: Number of well-child visits (Duggan 1999): 60% vs. 59%; $p=0.95$ Immunizations up to date (Duggan 1999): 87% vs. 85%; $p=0.45$	Fair
DuMont et al, 2008 <sup>72</sup>	Home visits by trained paraprofessionals to provide assistance, education, and services; model effective parent-child interaction; ensure child has medical home.	CPS reports: no difference; $p=NS$ At year 2, intervention parents reported one fourth as many acts of serious physical abuse as controls ( $p=0.03$ ). Consistent with other Healthy Family studies, no significant differences were found for prevalence or frequency of substantiated CPS reports.	Fair

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Intervention	Results	Quality Rating
El-Mohandes et al, 2003 <sup>75</sup>	One year-long program of home visits, parent-infant dyadic developmental play groups, parent support groups, and monthly support calls from a family resource specialist.	Well-infant care, intervention vs. control: Mean number of visits at 9 months: 3.14 vs. 2.18; p=0.0098 Mean number of visits at 12 months: 3.51 vs. 2.68; p=0.0098 Intensity of well-infant visits (12 months): At least 1 visit: 93.6% vs. 75.3%; p=0.0022 At least 2 visits: 89.4% vs. 63.6%; p=0.0007 At least 3 visits: 78.7% vs. 51.9%; p=0.0018 At least 4 visits: 59.6% vs. 41.6%; p=0.0363 At least 5 visits: 27.7% vs. 23.4%; p=0.3475 Mean immunization visits, intervention vs. control: At 4 months: 1.01 vs. 0.77; p=0.0498 At 6 months: 1.50 vs. 1.13; p=0.0295 At 9 months: 2.20 vs. 1.64; p=0.0125 At 12 months: 2.44 vs. 2.00; p=NS	Fair
Fergusson et al, 2005 <sup>73</sup>	Early Start Program assesses needs and resources, encourages positive partnership, provides support and problem solving.	CPS reports: no difference; p=0.39 Intervention vs. control: Proportion seen in hospital for accident/injury or accidental poisoning (0–36 mo): 17.5% vs. 26.3%; p<0.05 Parental report of severe physical punishment: 4.4% vs. 11.7%; p<0.01; OR, 0.35 (95% CI, 0.15 to 0.80) In contact with agencies for child abuse/neglect: 19.6% vs. 21.3%; p=0.39 Up to date with shots: 23.4% vs. 20.7%; p=0.83 Up to date with well-child visits: 41.9% vs. 30.1%; p<0.05 Seen in hospital for accident/injury or accidental poisoning (0–36 months): 17.5% vs. 26.3%; p<0.05; OR, 0.59 (95% CI, 0.36 to 0.98) Enrolled for dental care: 72.3% vs. 62.8%; p<0.05	Fair
Fraser et al, 2000 <sup>64</sup> (same as Armstrong et al, 1999 <sup>60</sup> )	Weekly nurse home visitation (n=90) vs. comparison group receiving standard care (n=91)	Intervention vs. control: Immunizations: no difference; p=NS	Fair
Koniak-Griffin et al, 2003 <sup>76</sup>	Care by public health nurses using a case management approach with one nurse providing continuous care from pregnancy through 1 year postpartum. Case management included 4 “preparation for motherhood” classes, counseling, and a maximum of 17 1.5- to 2-hour home visits (2 prenatal and 15 postpartum). Mean number of home visits, intervention vs. control: 2.13 (prenatal) and 10.35 (postpartum) vs. 1.02 (prenatal) and 1.09 (postpartum)	Children with ED visits (total number): 64% vs. 89%; p=NS Never used ED for child health problems: 36% vs. 11%; p<0.05 Children hospitalized: 21% vs. 36%; p=NS Episodes of hospitalizations for all indications: 19 vs. 36; p<0.01 Days infants hospitalized: 143 vs. 211 days; p<0.001 Adequately immunized: 77% vs. 87%; p=NS	Fair
Lowell et al, 2011 <sup>74</sup>	Each family assigned a clinical team, consisting of a master’s level developmental/mental health clinician and an associate’s or bachelor’s level care coordinator/case manager. Engagement and building trust were fundamental goals of Child First. Services were delivered predominantly in the home. A family driven plan of broad, integrated supports and services for all family members, which reflected family priorities, strengths, culture, and needs was developed. No set curriculum.	CPS involvement at 36 months: 14% intervention vs. 31% control (estimated); OR, 2.1 (95% CI, 1.1 to 4.4); p<0.05	Fair

## Appendix B1. Data Abstraction of Intervention Trials

Author, Year	Intervention	Results	Quality Rating
Siegel et al, 1980 <sup>85*</sup>	1) Control group (usual care) 2) Early and extended hospital contact and home visits 3) Early and extended hospital contact only 4) Home visits only	CPS Reports: 14 vs. 9 reports; p=NS No difference in health care utilization, including ED visits; p=NS Number of hospitalizations: no difference; p=NS	Fair

\*From prior report.

CAPI = Child Abuse Potential Inventory; CI = confidence interval; CPS = Child Protective Services; DHHS = Department of Health and Human Services; ED = emergency department; HFAK = Healthy Families Alaska; HFNY = Healthy Families New York; HSP = Healthy Start Program; HV = home visitation; NA = not applicable; NS = not significant; OR = odds ratio; RCT = randomized, control trial; RR = relative risk; SD = standard deviation; SEEK = Safe Environment for Every Kid.

## Appendix B2. Quality Ratings of Intervention Trials

Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
Barlow et al, 2007 <sup>69</sup>	Unclear	Unclear	Yes	Yes; women in intervention group slightly more likely to be high risk	Yes	Yes	Unclear	No
Barth et al, 1991 <sup>81</sup>	Unclear	Unclear	Yes	Yes	Yes	Unclear	Unclear	No
Bugental et al, 2002 <sup>82</sup>	Yes	Unclear	No	Yes; difference between completers and noncompleters (social support scale)	Yes	Unclear	Not applicable	No
Bugental et al, 2009 <sup>39</sup>	No	Unclear	No; however, adjusted in analysis to correct for lower education level and more immigrant families in intervention group	Yes; difference between completers and noncompleters (immigrant status and twins)	Yes	Unclear	Not applicable	No
Dubowitz et al, 2009 <sup>67</sup>	Yes (cluster randomized by day of the week)	Unclear	Yes	Yes	Yes	Unclear	No	No
Duggan et al, 2004 <sup>70</sup> (same as Duggan et al, 1999 <sup>83</sup> )	Yes, random numbers table	Unclear	No; significantly more mothers worked in the year prior to delivery in the intervention groups (52% vs. 44%). Also, mothers in the control group had significantly worse general mental health (50% vs. 43%); adjustments made	Yes; slightly higher followup rates for Hawaiians and slightly lower for other Pacific Islanders	Yes	Yes	No	No
Duggan et al, 2007 <sup>71</sup>	Yes; random numbers table, blocks of 10	Unclear	No; poorer psychological resources in control group (37% vs. 50%) and more control women enrolled prenatally (41% vs. 53%)	Yes	Yes	Yes	Unclear	No
DuMont et al, 2008 <sup>72</sup>	Yes	Unclear	Yes	Yes	Yes	Yes; interviewers blind to group assignment	No	No
Eckenrode et al, 2000 <sup>79</sup>	Yes	Yes	Yes; stratified by marital status, race, and 7 geographic regions within the county	Yes	Yes	Yes	Unclear	No
El-Mohandes et al, 2003 <sup>75</sup>	Yes	Yes	Yes	Yes	Yes	No	No	No
Fergusson et al, 2005 <sup>73</sup>	Yes	Unclear	Yes	Yes	Yes	Unclear	Unclear	No
Fraser et al, 2000 <sup>84</sup> (same as Armstrong et al, 1999 <sup>60</sup> )	Yes	Unclear	No	No	Yes	Yes; blinded for the first 6 weeks	Unclear	No
Kitzman et al, 1997 <sup>80</sup>	Yes	Yes	Yes; women in treatment 4 times more likely to have lived in households in which the head was unemployed and with less discretionary income	Yes	Yes	Yes; a few cases were revealed by the participants	No	No

## Appendix B2. Quality Ratings of Intervention Trials

Author, Year	Randomization adequate?	Allocation concealment adequate?	Groups similar at baseline?	Maintain comparable groups?	Eligibility criteria specified?	Outcome assessors masked?	Care provider masked?	Patient masked?
Koniak-Griffin et al, 2003 <sup>76</sup>	Yes	Unclear	Yes	Yes	Yes	Yes	No	No
Lowell et al, 2011 <sup>74</sup>	Yes	Unclear	No; differences in maternal education between intervention and usual care groups; maternal education was then used as a covariate in models	Yes; dropouts from the two groups were similar on all baseline characteristics	Yes	Yes; but frequently learned of group status as families divulged their participation in Child First	Unclear	No
Olds et al, 2007 <sup>88</sup>	Yes; computer-generated	Yes	Yes; nurse-visited participants lived in households with greater poverty and worse scores on childrearing attitudes associated with maltreatment	Yes	Yes	Yes	No	No
Olds et al, 1994 <sup>75</sup>	Yes	Yes	Yes	Yes; except for social support and sense of control (adjusted for in analyses)	Yes	Yes	Unclear	No
Olds et al, 1986 <sup>77</sup>	Yes	Yes	Yes	Yes; except for social support and sense of control (adjusted for in analyses)	Yes	Yes	Unclear	No
Siegel et al, 1980 <sup>85</sup>	Unclear; randomized but without explanation	Unclear	Yes	Yes	Yes	Yes	Unclear	No

Author, Year	Reporting of attrition, crossovers, adherence, and contamination	Loss to followup differential or high	Intention-to-treat analysis	Postrandomization exclusions	Outcomes prespecified	Funding source	Quality rating
Barlow et al, 2007 <sup>69</sup>	Yes	No	No	7.6% (10/131)	Yes	Nuffield Foundation, Department of Health	Fair
Barth et al, 1991 <sup>81</sup>	Yes	No	Yes	No	Yes	Bio-medical research support grant from the Division of Research, National Institutes of Health; California Office of Child Abuse Prevention grant; Department of Health and Human Services Administration on Children, Youth, and Families grants	Fair
Bugental et al, 2002 <sup>82</sup>	Yes	No; 73/96 completed (76%)	Unclear	No	Yes	National Institutes of Mental Health; National Science Foundation	Fair
Bugental et al, 2009 <sup>39</sup>	Yes	No	No	No	Yes	National Institutes of Health; National Science Foundation	Fair
Dubowitz et al, 2009 <sup>67</sup>	Yes	Yes; 76% completed protocol	Yes	No	Yes	Department of Health and Human Services Office on Child Abuse and Neglect	Fair

## Appendix B2. Quality Ratings of Intervention Trials

Author, Year	Reporting of attrition, crossovers, adherence, and contamination	Loss to followup differential or high	Intention-to-treat analysis	Postrandomization exclusions	Outcomes prespecified	Funding source	Quality rating
Duggan et al, 2004 <sup>70</sup> (same as Duggan et al, 1999 <sup>63</sup> )	Yes	No; 13% year 1; 15% year 2; 16% year 3; no differential loss to followup	Unclear	684 (94%) of those randomized were interviewed at baseline (373 in intervention group, 270 in main control group, and 41 in testing control group for 643 in the main study)	Yes	Federal Maternal and Child Health Bureau; Robert Wood Johnson Foundation; Annie E. Casey Foundation; David and Lucile Packard Foundation; National Institute of Mental Health Epidemiological Center for Early Risk Behaviors	Fair
Duggan et al, 2007 <sup>71</sup>	Unclear	No; 5% year 1; 8% year 2; not differential	No	High attrition: nearly half the families left the program by the child's first birthday, two thirds by child's second birthday	Yes	Alaska Mental Health Trust Authority and Alaska State Department of Health and Social Services	Fair
DuMont et al, 2008 <sup>72</sup>	Yes	No; 10% of those who began study lost to followup at year 1; 15% lost to followup by end of year 2; not differential	No	No	Yes	Department of Health and Human Services Office on Child Abuse and Neglect	Fair
Eckenrode et al, 2000 <sup>79</sup>	Yes	Not differential; included 81% of original sample after 15 years followup	No	Yes	Yes	Above, plus Department of Health and Human Services Children's Bureau	Good
El-Mohandes et al, 2003 <sup>75</sup>	Yes	High (42% at 1 year); differential quitting the program (more in the control group) but no difference at 12 months	No	No	Yes	National Institute of Child Health and Human Development and the National Institutes of Health	Fair
Fergusson et al, 2005 <sup>73</sup>	Unclear	No	No, but did estimate missing data	Intervention: 6.4% (14/220) Control: 0.9% (2/223)	Parental report of abuse, parental report of contact with Child Protective Services	Health Research Council of New Zealand; National Child Health Research Foundation; Canterbury Medical Research Foundation; New Zealand Lottery Grants Board	Fair
Fraser et al, 2000 <sup>64</sup> (same as Armstrong et al, 1999 <sup>60</sup> )	Yes	Differential: no High: yes (23.76% loss at 12 months)	Yes	No	Yes	Community Child Health; Royal Children's Hospital and District Health Service; Abused Child Trust; Creswick Foundation; National Health and Medical Research Council	Fair
Kitzman et al, 1997 <sup>80</sup>	No	No	No	No	Yes	National Institute of Nursing Research; Bureau of Maternal and Child Health; Administration for Children and Families; Office of the Assistant Secretary for Planning and Evaluation; National Center for Child Abuse and Neglect	Fair

## Appendix B2. Quality Ratings of Intervention Trials

Author, Year	Reporting of attrition, crossovers, adherence, and contamination	Loss to followup differential or high	Intention-to-treat analysis	Postrandomization exclusions	Outcomes prespecified	Funding source	Quality rating
Koniak-Griffin et al, 2003 <sup>76</sup>	Yes	Differential: no High: yes (30% attrition at 24 months)	No	No	Yes	National Institute of Nursing Research and Office of Research on Women's Health	Fair
Lowell et al, 2011 <sup>74</sup>	Yes	Differential: no High: yes (25% vs. 26%)	Yes	No	Yes	Starting Early Starting Smart Prototype (Substance Abuse and Mental Health Services Administration, 9886); Robert Wood Johnson Foundation (60068)	Fair
Olds et al, 2007 <sup>68</sup>	No	Unclear	No	No	Yes	National Institute of Mental Health; National Institute of Child Health and Human Development; Department of Justice	Fair
Olds et al, 1994 <sup>78</sup>	Yes	Not differential; 15% to 21% loss to followup	No	Yes	Yes	Above, plus the National Center for Nursing Research	Good
Olds et al, 1986 <sup>77</sup>	Yes	Not differential; 15% to 21% loss to followup	No	Yes	Yes	Bureau of Community Health Services; Robert Wood Johnson Foundation; William T. Grant Foundation	Good
Siegel et al, 1980 <sup>85</sup>	Yes	No	Yes; for Child Protective Services data	No	Yes	National Institute of Child Health and Human Development, William T. Grant Foundation	Fair

## Appendix C1. Parent Screening Questionnaire

### Parent Screening Questionnaire A Safe Environment for Every Kid (**SEEK**)

*Dear parent or caregiver: Being a parent is not easy. We want to help families have a safe environment for kids. We are asking everyone these questions. Please answer the questions about your child being seen today for a check-up. They are about issues that affect many families. If there's a problem, we'll try to help.*

Today's Date:        \_\_\_/\_\_\_/200\_\_  
Child's Date of Birth: \_\_\_/\_\_\_/\_\_\_  
Sex of Child:         Male     Female

#### PLEASE CHECK

- Yes     No        Do you need the telephone number for Poison Control?
- Yes     No        Do you need a smoke alarm for your home?
- Yes     No        Does anyone smoke tobacco at home?
- Yes     No        Is there a gun in your home?
- Yes     No        In the last year, did you worry that your food would run out before you got money or food stamps to buy more?
- Yes     No        Do you worry that your child may have been physically abused?
- Yes     No        Do you worry that your child may have been sexually abused?
- Yes     No        Lately, do you often feel down, depressed, or hopeless?
- Yes     No        Do you often feel lonely?
- Yes     No        During the past month, have you felt little interest or pleasure in the things you used to enjoy?
- Yes     No        Do you often feel your child is difficult to take care of?
- Yes     No        Do you wish you had more help with your child?
- Yes     No        Do you feel so stressed you can't take another day?
- Yes     No        Do you sometimes find you need to hit/spank your child?
- Yes     No        In the past year, have you or your partner had a problem with drugs or alcohol?
- Yes     No        In the past year, have you or your partner felt the need to cut back on alcohol?
- Yes     No        Have you ever been in a relationship in which you were physically hurt or threatened by a partner?
- Yes     No        In the past year, have you been afraid of a partner?
- Yes     No        In the past year have you thought of getting a court order for protection?
- Yes     No        Are there any problems you'd like help with today?

**Please give this form to the doctor or nurse you're seeing today. Thank you.**