Systematic Evidence Review
Number 28

Screening for Family and Intimate Partner Violence

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Screening for Family and Intimate Partner Violence

Prepared for:
Agency for Healthcare Research and Quality
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Preface

The Agency for Healthcare Research and Quality (AHRQ) sponsors the development of Systematic Evidence Reviews (SERs) through its Evidence-based Practice Program. With guidance from the U.S. Preventive Services Task Force* (USPSTF) and input from Federal partners and primary care specialty societies, the Evidence-based Practice Center at the Oregon Health & Science University systematically reviews the evidence of the effectiveness of a wide range of clinical preventive services, including screening, counseling, and chemoprevention, in the primary care setting. The SERs—comprehensive reviews of the scientific evidence on the effectiveness of particular clinical preventive services—serve as the foundation for the recommendations of the USPSTF, which provide age- and risk-factor-specific recommendations for the delivery of these services in the primary care setting. Details of the process of identifying and evaluating relevant scientific evidence are described in the "Methods" section of each SER.

The SERs document the evidence regarding the benefits, limitations, and cost-effectiveness of a broad range of clinical preventive services and will help further awareness, delivery, and coverage of preventive care as an integral part of quality primary health care.

AHRQ also disseminates the SERs on the AHRQ Web site (http://www.ahrq.gov/clinic/uspstfix.htm) and disseminates summaries of the evidence (summaries of the SERs) and recommendations of the USPSTF in print and on the Web. These are available through the AHRQ Web site and through the National Guideline Clearinghouse (http://www.ngc.gov).

We welcome written comments on this SER. Comments may be sent to: Director, Center for Practice and Technology Assessment, Agency for Healthcare Research and Quality, 540 Gaither Road, Suite 3000, Rockville, MD 20850.

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*The USPSTF is an independent panel of experts in primary care and prevention first convened by the U.S. Public Health Service in 1984. The USPSTF systematically reviews the evidence on the effectiveness of providing clinical preventive services--including screening, counseling, and chemoprevention--in the primary care setting. AHRQ convened the USPSTF in November 1998 to update existing Task Force recommendations and to address new topics.

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Structured Abstract

Context

Family and intimate partner violence occurs commonly in the U.S. and causes important health problems. Although the clinician's role in identification and intervention is considered a professional and legal responsibility, the effectiveness of these efforts is unclear.

Objective

To examine evidence on the performance of screening procedures and interventions in the primary care setting in reducing harm from family and intimate partner violence for children, women, and elderly adults.

Data Sources

MEDLINE®, PsycINFO, CINAHL, Health & Psychosocial Instruments, ERIC, AARP Ageline, and the Cochrane Controlled Trials Register, reference lists of systematic reviews, and experts.

Study Selection

Included studies had English-language abstracts, were applicable to U.S. clinical practice, described abuse and neglect in women, children, or elderly adults, were conducted in or linked to primary care, obstetrics/gynecology, or emergency department settings, and included a clinician in the process of assessment or intervention.

Data Extraction

We extracted selected information about study design, patient samples and settings, methods of assessment or intervention, and clinical endpointsand applied a set of criteria to evaluate study quality.

Data Synthesis

No studies directly addressed the effectiveness of screening in a healthcare setting in reducing harm, or described the adverse effects of screening and interventions. All instruments designed to screen for child abuse and neglect were directed to parents, particularly pregnant women. These had fairly high sensitivity but low specificity. Several brief instruments designed to identify women with intimate partner violence compared well to longer previously validated instruments. We found few studies of screening for elder abuse and neglect. A randomized controlled trial with 15-years follow-up indicated that nurse home visits during pregnancy and for 2-years postpartum

for low-income women improved abuse and neglect outcomes for children. Studies of interventions for children of other ages, women who are not pregnant, and elderly adults are lacking.

Conclusions

Screening and interventions for child abuse are directed to parents during prenatal and postpartum periods. Several brief screening instruments have been tested for women, but interventions are lacking. Few instruments and no interventions were identified for elderly adults.

Contents

Systematic Evidence Review

Figures

Tables

Appendices

1. Introduction

Burden of Suffering

Approximately 1 million abused children are identified in the U.S. each year.[1] In 1999, reported abuse rates were 1,180 per 100,000 children with the highest rates for children age 3 years and younger.[2] An estimated 1,100 children died of abuse and neglect that year, a rate of approximately 1.62 deaths per 100,000 children in the general population.[2] Reported abuse likely captures only a fraction of all cases.[3] A large survey of adult health maintenance organization members indicated that 11% experienced psychological abuse, 11% physical abuse, and 22% sexual abuse during childhood.[4]

The 1996 Federal Child Abuse Prevention and Treatment Act (CAPTA) describes the term "child abuse and neglect" at a minimum, to be "any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm."[5] Definitions also include any action that hinders a child's development potential.

Frequently cited factors associated with child abuse and neglect include low income,[6-9] low maternal education,[7-9] non-white ethnicity,[6, 7] large family size,[7, 8] young age of the mother,[7] single parent,[7] psychiatric disturbances of parents,[10] and presence of a stepfather,[7] among others.[7, 11] The relationship of increasing numbers of risk factors to officially recorded and self-reported abuse and neglect outcomes was illustrated in a 17-year longitudinal analysis of data (Figure 1).[7] As the number of risk factors increased,

the proportion of children maltreated also increased for neglect and physical, sexual, and all types of abuse outcomes.

Estimates of the prevalence of intimate partner violence in the U.S. indicate that 1-4 million women are physically, sexually, or emotionally abused by their intimate partners each year,[12, 13] with 31% of all women reporting being abused at some point in their lifetimes.[14] Prevalence rates of abuse in clinical samples range from 4-44% within the past year and from 21-55% over a lifetime.[15-25] A survey of pregnant women at prenatal clinics indicated a prevalence of abuse of 17%.[26] In a survey of teenage students, approximately 20% of female respondents reported being physically and/or sexually abused by a dating partner.[27] The incidence of acute cases determined in emergency care settings ranges from 2-7.2%.[28] Although violence by women against men also occurs, women are 7-14 times more likely to suffer severe physical injury from an assault by an intimate partner,[29] resulting in at least 1.4 million emergency department visits each year.[30]

Studies of intimate partner violence, including 2 large national surveys,[13 30] report associations with young age,[20, 21, 31, 33-38] low income,[21, 31-33, 35, 39-41] pregnancy, [25] mental health problems, including depression, anxiety, and suicide attempts,[19, 20, 33, 36, 37, 41, 42] alcohol or substance use by victims[19, 20, 31, 32, 37, 42] or perpetrators,[20, 24, 32] separated or divorced status,[20, 21, 24, 34, 38, 40] and history of childhood sexual and/or physical abuse,[32, 38, 43, 44] among others.

Estimates from the National Elder Abuse Incidence Study (NEAIS) state that approximately 551,000 older adults in domestic settings were abused and/or neglected during 1996.[45] A random sample survey of a community population indicated a

prevalence rate of 32 per 1000 for physical violence, verbal aggression, and neglect.[46] Complicating these estimates, however, is the difficulty in defining and quantifying elder abuse. Abuse of the elderly takes many forms including physical, sexual, financial exploitation, neglect, and psychological.[47] Available data indicate that women are abused at higher rates than men and those age 80 years and older are abused and neglected at 2-3 times their proportion in the population.[45] In 90% of cases, the perpetrator is a family member, most often adult children or spouse.[45]

Factors significantly associated with elder abuse were identified in a 9-year cohort study of 2,812 community-dwelling elders utilizing social services in Connecticut.[48] These included increasing age, nonwhite race, low income, living with another person, and having few social ties. Functional impairment, such as difficulties with activities of daily living (ADLs) and cognitive disability were also associated with abuse, although having depression, urinary incontinence, and other chronic medical conditions were not. Other frequently associated factors include substance use,[49] and having a poor emotional state and low self-esteem,[50] among others.[50-52]

Studies of caregivers who abused elderly reported perpetrator factors associated with abuse including being an adult child but not spouse or paid caregiver of the victim, [49] being male, alcohol and substance use, [49, 53 50] mental health problems including depression,[50, 52, 53] previous childhood abuse,[53] and being abused previously by the victim.[52] Caregiver burden, such as providing long-term care and working many hours each day, also was associated with abuse.[54]

Many health problems are associated with abuse and neglect at all ages. These include not only repercussions of acute trauma, including death and unwanted pregnancy,

but also long-term physical and mental problems such as depression, post-traumatic stress disorder, somatization, suicide, substance abuse, and others.[4, 27, 55-63] In addition, children who witness intimate partner violence are at risk for developmental delay, school failure, and a variety of psychiatric disorders, including depression and oppositional defiant disorder,[64, 65] and violence against others.[66]

Health Care Interventions

The clinician's role in identification and intervention is considered a professional responsibility by physician and nursing organizations,[67, 68] and is also defined in legal terms. Reporting child and elder abuse to protective services is mandatory in most states, and 4 states (California, Colorado, Rhode Island, and Kentucky) have laws requiring mandatory reporting of intimate partner violence. Statutes mandating reporting vary. For child maltreatment, 19 states require that any person who suspects child abuse or neglect must report, while the majority of the states limit mandatory reporting to professionals working with children.[69] Hospitals are also required to address abuse in order to comply with mandates from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).[70]

Although several risk markers related to family and intimate partner violence have been identified, most of these have been determined by cross-sectional or case-control descriptive studies and causality has not been determined. Risk markers have been used in designing screening questionnaires and as eligibility criteria for studies and programs.

Whether screening in the primary care setting leads to a decline in abuse is unknown. In the mid-1990's, after several medical organizations recommended screening for intimate partner abuse, rates of abuse declined.[71] A systematic review reported that most studies of screening for intimate partner violence in health care settings found that screening detected a greater proportion of abused women than no screening.[72] Surveys indicate that 43-85% of women respondents consider screening in health care settings acceptable, although only a third of physicians and half of emergency department nurses are in favor of screening.[72] It remains unclear for clinicians how to effectively screen for abuse and intervene once problems are identified, and few clinicians routinely screen patients without apparent injuries.[73-78]

Prior Recommendations

In 1996, the U.S. Preventive Services Task Force concluded that there was insufficient evidence to recommend for or against the use of specific screening instruments to detect family or intimate partner violence, but recommended that clinicians ask questions about abuse if it is suspected.[79] This report is an update of the current literature on family and intimate partner violence. It focuses on studies of the performance of screening instruments designed for the clinical setting and the effectiveness of clinical-based interventions for children, women, and elderly adults.

Analytic Framework and Key Questions

We defined screening as assessment of current harm or risk of harm from family and intimate partner violence in asymptomatic persons in a health care setting.

Individuals presenting with injuries from family violence undergo a diagnostic, not screening, evaluation. Universal screening means assessing everyone; selective screening indicates that only those who meet specific criteria are assessed. The target populations for this review were children, women, and elderly adults as victims of abuse directed towards them by family members, intimate partners, caretakers, or others with similar relationships. The USPSTF focused this review on these populations because they are the largest at-risk groups in general primary care settings and are most likely to have been subjects of published studies.

The analytic framework in Figure 2 indicates the strategy that we used to guide our literature search about screening children, women, and elderly adults. Key questions were identified as areas with unresolved issues pertinent to clinical practice. These key questions correspond to selected numbered arrows in the analytic framework and include:

Arrow 1: Does screening for family and intimate partner violence reduce harm and premature death and disability?

Arrow 2: How well does screening identify current harm or risk for harm from family and intimate partner violence?

Arrow 3: What are the adverse effects of screening?

Arrow 4: How well do interventions reduce harm from family and intimate partner violence?

Arrow 5: What are the adverse effects of interventions?

2. Methods

Literature Search Strategy

In conjunction with a medical librarian, we conducted searches using MEDLINE (1966 to December 2002), PsycINFO (1984 to December 2002), CINAHL (1982 to December 2002), Health & Psychosocial Instruments (1985 to December 2002) (women and elderly adults only), ERIC (1989 to December 2002) (children only), AARP Ageline (1978 to December 2002) (elderly adults only), and the Cochrane Controlled Trials Register (Appendix 1). Additional articles were obtained by reviewing reference lists of pertinent studies, reviews, and editorials, and by consulting experts. References listed in a recent review of early childhood home visitation for the prevention of violence for the U.S. Task Force on Community Prevention Service,[80] the Prevention of Child Maltreatment Update from the Canadian Task Force on Preventive Health Care,[81] Violence in Families: Assessing Prevention and Treatment Programs[82], a systematic review of screening women in health care settings for domestic violence[72] and other systematic reviews were specifically considered.

Inclusion/Exclusion Criteria

Inclusion and exclusion criteria were developed by the investigators in collaboration with the USPSTF for each population. Studies included in this review had English-language abstracts, were applicable to U.S. clinical practice, described abuse and violence against women, children, or elderly adults, were conducted in or linked to

primary care (family practice, pediatrics, and general internal medicine), obstetrics/gynecology, or emergency department settings, and included a physician or other health provider in the process of assessment or intervention. We excluded studies about patients presenting with trauma.

Studies about assessment were included if they evaluated the performance of verbal or written questionnaires or other assessment procedures such as physical examinations that were brief and applicable to the primary care setting. Included studies clearly described the study sample, the screening instrument or procedure, the abuse or neglect outcome, and the collection of data. Outcomes included indicators of physical abuse, neglect, emotional abuse, and/or sexual abuse and related health outcomes if reported such as depression.

Studies about interventions were included if they measured the effectiveness of an intervention in reducing harm from family and intimate partner violence compared to comparison groups. Results from properly conducted randomized controlled trials were emphasized. We excluded studies that tested effectiveness of interventions to educate health care professionals about family violence or increase screening rates in institutions. We also excluded studies about mandatory reporting laws, descriptions of programs, the accuracy of physician diagnosis and reporting of abuse, and physician factors related to reporting.

Data Extraction and Synthesis

From each included study, we abstracted the study design, number of participants, setting, length and type of interventions, length of follow-up, outcomes, methods of

outcome measurement, and study duration, among others. Two reviewers independently rated each study's quality using criteria specific to different study designs developed by the USPSTF, and categorized them as good, fair, or poor (Appendix 2).[83] When reviewers disagreed, a final score was reached through consensus.

3. Results

Child Abuse and Neglect

Screening

1,808 abstracts were captured in searches of MEDLINE, CINAHL, and Health & Psychosocial Instruments (searches provided in Appendix 1). Sixty-five full text articles were retrieved for further review; 6 studies met eligibility criteria.

Studies meeting eligibility criteria utilized self-administered questionnaires, sometimes in conjunction with interviews and review of medical records, clinical staff-directed interviews, and clinical observation to identify families with current harm or risk for harm. All studies primarily assessed parents, rather than children directly, and none utilized specific physical examination protocols for screening. Instruments included in these studies are described in Appendix 3.

*Self-administered questionnaires***.** The Kempe Family Stress Inventory (KFI) [84] was used in 3 studies meeting eligibility criteria (Table 1). Study populations included predominantly young, single women with low socioeconomic indicators. A retrospective cohort study in Denver included 262 adolescent parents in a university hospital maternity program.[85] Cases of child abuse and neglect were recorded by medical staff. As part of a larger battery of measures, families completed the 10-item KFI including questions about stressful events, parent behavior, and other risk factors associated with child abuse and neglect. Scores on the KFI were the only statistically significant predictors of maltreatment at 1 year (RR 8.41, CI 5.77-10.01; p=0.0009) and at 2 years postpartum

(RR 5.19, CI 1.99-13.60; p=0.004). In addition, families identified with high risk scores on the KFI were more likely to initiate clinic visits for their children during the first year ($p<0.0001$) and admit their children to the hospital during the first 6 months (p=0.06) than low risk mothers.

A study conducted in Hawaii Healthy Start affiliated obstetrics clinics that included young, poor, pregnant women with high rates of domestic violence and substance abuse, utilized the KFI in a 2-step screening process.[86, 87] Identification of high-risk women by initial review of medical records or interview using the 15-item Hawaii Risk Indicators Screening Tool was followed by the KFI. Results were then compared with the Child Abuse Potential (CAP) inventory, a 160-item instrument. The 2-step procedure had 89% sensitivity and 28% specificity at 6-months follow-up.

An evaluation of the Oregon Healthy Families program also used the Hawaii Risk Indicators Screening Tool to screen 2,870 pregnant women considered at risk for child abuse because of history of previous abuse or neglect, history of substance abuse, and young age, among other factors.[88] Women who had high scores on this test (40% of cohort), were then given the KFI. Risk scores on the KFI were highly correlated with maltreatment rates (given per 1000 children): 7 with low-risk scores, 18 with moderate, 45 with high, and 172 with severe. Sensitivity was calculated at 97%, specificity 21% for scores in the high to severe range (>25 points).[86]

*Clinical staff-administered questionnaires***.** A study of 1,089 young pregnant women receiving care at a general hospital used the Maternal History Interview (MHI-2) to determine risk for child abuse.[89] This instrument utilizes open-ended questions and

subscales to evaluate parenting skills, personality, discipline philosophy, life stress, and others. Child abuse reports for mothers identified as high risk were 6.6% compared with 2.3% for low risk (RR 3.02, CI 1.02-8.90) based on public agency reports of physical abuse, neglect, sexual assault, or mother-child separation. The MHI-2 had a positive predictive value of 6.6% and a sensitivity of 55.6% for physical abuse. This instrument did not predict neglect or sexual abuse.

The Parenting Profile Assessment (PPA) is a 21-item nurse interview designed for the primary care setting.[90] When administered to a sample of 185 mothers who volunteered to be studied, it had 75% sensitivity and 86% specificity for child abuse based on self-reports.[90]

*Other techniques: clinician observation***.** In a retrospective cohort study, nurses referred patients and their newborns to the hospital's child abuse committee from the postpartum unit after determining them to be at high risk for abuse based on a number of non-standardized criteria including parental substance use, income, social support, previous child abuse or neglect, and parenting behavior.[91] Information was gathered from direct observation and medical records. When compared to the low-risk patients, the rate of subsequent hospitalizations for both medical and psychosocial reasons was significantly greater in the high-risk patients ($p<0.01$ and $p<0.05$, respectively).

Summary of child abuse and neglect screening.

- Although several screening assessment procedures are described in the literature, few studies evaluate their performances for predicting child abuse and neglect outcomes.
- Most studies of instruments screen pregnant or postpartum women; there are no studies of instruments that evaluate children directly.
- No instruments have been evaluated for feasibility in the primary care setting using measures of time, cost, or others.
- Sensitivity and specificity of instruments are poor to fair depending on the instrument and population. None has been widely tested.

Interventions

1,748 abstracts were captured in searches of MEDLINE, CINAHL, PsycINFO, ERIC, and the Cochrane Database of Systematic Reviews and Controlled Trials (Appendix 1, Figure 3). Seventeen studies, utilizing 13 unique populations, met inclusion criteria. All studies evaluated interventions for pregnant and postpartum women and their infants. Nine randomized controlled trials were identified: one rated good quality,[92] with 4 subsequently published follow-up studies,[93-96] 6 rated fair quality,[97-102] and 2 rated poor quality.[89, 103] One poor quality quasi-experimental study,[104] 2 fair-to-poor quality cohort studies,[88, 105] and 1 poor quality cohort study[106] were also identified. All studies are described in Table 2, but only the randomized controlled trials rated good or fair quality are described in the text. Results of all the studies are also summarized in Table 3.

*Randomized controlled trials meeting criteria for good quality***.** A trial of 400 low income, pregnant women in a semi-rural county in New York State provided 3 levels of support services during and after pregnancy and assessed outcomes related to child abuse and neglect.[92] Women were actively recruited to the study through a variety of ways, including public health clinics and obstetric practices, if they had no other previous live births and were either younger than 19, single parents, or had low socioeconomic status, although women who requested to be in the study were also included. They were randomized to 1 of 4 groups including: no intervention, intervention with transportation services to the medical clinic during pregnancy, intervention with transportation services and nurse home visits during pregnancy (every 2 weeks for approximately 9 visits), and intervention with transportation services and nurse home visits continuing through the child's second birthday. Nurse visits included parent education, support systems for the mother, and engagement of family members with other health and social services.

All infant participants received a sensory, developmental, and home environment evaluation at 1 and 2 years of age using Bayley, Cattell, and Home Observation for Measurement of the Environment (HOME) Scales. In addition, records from the department of social services (Child Protective Services), emergency room visits, and other medical visits were reviewed for the presence of abuse and/or neglect. If there were suspected problems in the no intervention group at the 1 or 2-year evaluation, subjects were referred to appropriate services. Data were also collected at ages 3,[93] 4,[94] and 15.[95, 96] At the 15-year follow-up, outcome data included a life history calendar, self-report of criminal activity, parent-child conflict inventory, and domestic violence assessment.

Results at 2 years showed that high-risk women who had prolonged nurse visits were less likely to commit acts of child abuse and neglect compared to high-risk women without visits (p=0.07).[92] At 3 and 4 years follow-up, there were no differences between groups for child abuse and neglect outcomes.[93, 94] At the 15-year follow-up, however, differences were reported. Children in the nurse-visited group were less likely to be involved in reports of child maltreatment of any kind (p=0.004).[96] Mothers in the nurse-visited group were less likely to be perpetrators of child abuse and neglect than mothers without nurse visits 15 years after the intervention (p=0.01).[95]

Other related outcomes included fewer injuries or toxic ingestions at ages 2, 3, and 4,[92-94] and fewer visits to the emergency department at ages 3 and 4[93, 94] for the nurse-visited group. Also, at the 2-year assessment, nurse-visited toddlers showed a higher developmental quotient than non-visited toddlers.[92] When compared to non-visited mothers, mothers in the nurse-visited group showed less impairment by alcohol and other drug use, less convictions, and less jail time at the 15-year follow-up.[95] However, this finding was statistically significant only for the subgroup of unmarried women with low socioeconomic status.

*Randomized controlled trials meeting criteria for fair quality***.** Six fair-quality trials evaluated home visitation programs linked to prenatal clinics or hospital care.[97-102] All but one study[100] used inclusion criteria to assess risk for child abuse and neglect, although no study used standardized or validated instruments. Studies generally considered positive responses to criteria such as social or demographic risk factors (unmarried, low level of education, unemployed),[97, 101] drug use during pregnancy,[99] low birth weight,[102]

or a history of other risk factors (HIV infection, homelessness, substance use),[98] among others. Follow-up ranged from 2 to 24 months post delivery, and abuse outcomes were determined by medical record review, face-to-face interviews, home observation, questionnaires on child abuse potential, and county social service records. Evaluations of the home included assessment of the safety and developmental appropriateness of the home and play environment.

None of these studies described significantly fewer reports of abuse and neglect in intervention groups compared to control groups. Five of the studies reported other significant intervention effects related to abuse and neglect such as medical care utilization, parent-child interactions, punishment, stressful life events, parental mental illness, and drug use.[97-99, 101, 102]

A trial in Memphis randomized 1,139 pregnant women seen in a public obstetric clinic to 4 different intervention groups including a home nurse-visit group.[101] This study had a similar design as the New York State trial,[92] but differed in implementation of the intervention and measurement of outcomes. Also, study groups had different income levels at baseline. Outcome measures included mothers' perceptions of child abuse and neglect, punishment, and child rearing, medical visits, and life events, but no verified reports of abuse and neglect. By the 24th month, nurse-visited women held fewer beliefs about child-rearing associated with child abuse and neglect such as lack of empathy, belief in physical punishment, and unrealistic expectations of an infant ($p=0.003$). Nurse-visited children had fewer health care encounters related to injuries or ingestions in the first 2 years, compared to comparison groups ($p=0.05$).

A prenatal assessment indicated that 43 drug-using minority women had Child Abuse Potential (CAP) scores significantly above the norm ($p<0.01$).[99] At 18 months follow-up, an intervention group that had received biweekly nurse home visits reported total abuse scores on the CAP to be within the norm, while the control group continued to show total scores above the norm ($p<0.01$). Women in the treatment group were more emotionally responsive to their children ($p=0.03$), had a more stimulating home environment ($p=0.053$), reported being drug free ($p=0.002$) and were compliant with primary care ($p=0.016$) compared to the women without home visits.

In a trial conducted in California, 191 pregnant women were referred to a specialized home visitation program after being identified as high risk and were followed for 2 months postpartum.[97] Before the program, the intervention group had more reports of child abuse than the control group. Following the intervention, the control group had a greater increase in unsubstantiated reports ($p<0.05$). No differences were seen for substantiated reports, well-being, prenatal care, birth outcomes, baby temperament, child welfare, or court-ordered in-home or out-of-home services.

225 pregnant minority women in Philadelphia participated in a study of home visitation from prenatal to 12 months postpartum.[98] There were no significant differences between groups on the HOME inventory. Treatment women showed a decrease in overall psychological distress ($p<0.002$), had more help with household tasks and attaining household items ($p<0.001$), higher total social support ($p<0.005$), and more support from grandparents ($p=0.04$) and friends ($p<0.004$).

A trial of nurse home visitation for low birth weight babies included 79 postpartum women at the University of Pennsylvania Hospital.[102] Low birth weight

infants in the intervention group were discharged 11 days earlier ($p<0.05$) than the control group, and were on average 2 weeks younger. At 18 months follow-up, there were no differences between groups for reports of child abuse or foster care placement, measures of re-hospitalizations, numbers of acute care visits, or incidence of failure to thrive.

Summary of child abuse and neglect interventions.

- A good-quality randomized controlled trial of nurse home visits during pregnancy and for 2 years after delivery indicated improved child abuse and neglect outcomes, as well as improved related outcomes such as criminal activity, perpetrator status, drug use, etc. These effects persisted for 15 years after the intervention. Most of the positive results of this intervention were concentrated among mothers who were unmarried and from low-income households.
- Other trials do not indicate improved child abuse and neglect outcomes, but report improvements in related outcomes.
- All studies of interventions focused on newborns and infants.
- All studies of interventions included women considered at high risk for abuse because of sociodemographic characteristics and/or inclusion criteria based on additional risk factors.

Intimate Partner Violence against Women

Screening

Of 806 abstracts identified by searches of MEDLINE, PsycINFO, and Health & Psychosocial Instruments (Appendix 1); 14 met inclusion criteria. These include 6 studies that compared one instrument to another[26, 107-111], 3 that compared an instrument to a directed interview[112-114], 2 that measured inter-rater reliability and/or internal consistency[115, 116], and 3 that compared methods of administration[76, 117, 118]. None evaluated the performance of a screening instrument or procedure using verified abuse outcomes. Instruments are described in Appendix 3.

Six studies compared brief screening instruments to previously validated instruments and were rated good or fair in quality (Table 4).[26, 107-110] Results indicated that the brief instruments were generally correlated to longer instruments and in some cases performed better.

The HITS instrument includes 4 questions about being Hurt, Insulted, Threatened, or Screamed at.[109] When administered to 259 women in a family practice office, it demonstrated fair internal consistency (Cronbach's alpha=0.80), and its results correlated with the previously validated 19-item Conflict Tactics Scales (CTS) (r=0.85). In urban emergency department settings, the Partner Violence Screen (PVS), consisting of 3 questions, had higher sensitivity and specificity when compared to either the 30-item Index of Spouse Abuse (ISA) (64.5% & 80.3%) or the Conflict Tactics Scales (71.4% & 84.4%).[110] However, the Conflict Tactics Scales may not have undergone sufficient testing of its validity to qualify as a gold standard in these studies.

A study of 1,152 predominantly African-American women presenting for care at university-affiliated family practice clinics found that the 10-item Women's Experience with Battering Scale (WEB) had a higher detection rate (16%) than the 15-item Index of Spouse Abuse-Physical Scale (ISA-P) (10%).[107] Another trial with predominantly white women in family practice clinics found that the 8-item Woman Abuse Screening Tool (WAST) was correlated to the 25-item Abuse Risk Inventory (ARI) (r=0.69).[108] A study of pregnant women in public prenatal clinics tested the 3-item Abuse Assessment Screen (AAS) against the Index of Spouse Abuse (ISA).[26] Women identified as abused on the AAS also scored significantly higher on the ISA than women who had not been abused.

The previously validated Abuse Assessment Screen (AAS) was modified to detect present abuse, rather than abuse within the previous 12 months, for use in the emergency department setting and re-named the Ongoing Abuse Screen (OAS).[111] Women presenting to an emergency department were screened with both instruments as well as with a single. The Abuse Assessment Screen yielded positive results in 59% of women screened, and the Ongoing Abuse Screen yielded positive results in 16%. The single question, "Are you presently a victim of intimate partner violence?" yielded positive results in 3% of women.

Three studies comparing a screening instrument to an interview were rated as poor quality.[112-114] The major limitation of these studies is that no protocol for the directed interview was identified. These studies reported higher detection rates with questionnaires than with interviews.

Two fair quality studies measured the internal consistency of screening instruments[115, 116]. The Partner Abuse Interview, an 11-item questionnaire modified from

the Conflict Tactics Scales, showed fair internal consistency (Cronbach's alpha=0.82) when tested in 90 women at a suburban family practice clinic and university hospital.[115] The Women's Experience with Battering (WEB) Scale, a 10-item questionnaire tested in primary care clinics and community groups, showed good internal consistency (Cronbach's alpha 0.99).[116]

Three fair quality studies compared methods of administration of screening instruments.[76, 117, 118] A study of 4,641 women presenting to 11 community emergency departments found that the prevalence of past year and lifetime violence was significantly higher when a questionnaire containing items from the Abuse Assessment Screen (AAS) was self-administered than when it was administered by a nurse.[76] In another study conducted in an emergency department, reports of abuse were similar when a questionnaire was given as part of a face-to-face-interview (16%) and when a taped-recorded questionnaire with a written self-reported answer sheet was provided (15%).[117] In a study at a Planned Parenthood clinic using the AAS, rates were higher with a nurse-conducted interview (29%) than by self-report (7%).[118]

*Summary of intimate partner violence screening***.** Several instruments have been developed for intimate partner violence screening; some have demonstrated fair to good internal consistency and some have been validated with longer instruments. None, however, have been evaluated against measurable intimate partner violence outcomes.

The optimal methods of administration have not been determined, but may vary by setting and patient population.

Interventions

Of 667 abstracts identified by searches of MEDLINE, CINAHL, and PsycINFO (Appendix 1) only 2 met inclusion criteria (Table 5). These fair quality studies evaluated interventions for abused pregnant women and reported lower levels of violence after delivery even when a minimal or "brief" intervention was performed;, neither study had a non-intervention control group.[119, 120]

In one study, 329 pregnant Hispanic women in a prenatal clinic who tested positive for abuse on a screening questionnaire (Abuse Assessment Screen [AAS]) were randomized into 1 of 3 groups: "brief" (given wallet-sized card listing community resources); "counseling" (unlimited access to counselor in clinic); or "outreach" (counseling plus "mentor mother" in the community).[119] At a 2-month follow-up, violence scores measured using the Severity of Violence Against Women Scale (SVAWS) were significantly lower in the outreach group compared to the counseling group, but not compared to the brief group. However, at the 6-, 12-, and 18-month follow-ups, violence scores were decreased in all groups without statistically significant differences between groups.

In another study of pregnant women in prenatal clinics with positive responses on the AAS, 132 were given 3 counseling sessions, while 67 were offered wallet-sized cards listing community resources.[120] At 6 and 12 months post delivery, less violence occurred

in the intervention group as measured by the Index of Spouse Abuse (ISA) (p=0.007) and SVAWS (p=0.052).

*Summary of intimate partner violence interventions***.** Few intervention studies have been conducted and these focused on pregnant women. Outcomes were based on scores on questionnaires and suggest benefit, however study limitations restrict interpretation.

Elder Abuse and Neglect

Screening

Of 1,045 abstracts identified by searches of MEDLINE, PsycINFO, Health & Psychosocial Instruments, and AARP Ageline (Appendix 1), 3 studies of elder abuse screening instruments met modified inclusion criteria (Table 6; Appendix 3). None were developed or tested in traditional clinical settings. However, because the care of elderly adults occurs largely outside these settings, they were included in this review if they appeared that they could be adapted to a clinical setting.

A screening instrument for caregivers was tested in 3 groups: abusive and non-abusive caregivers from a social service agency, and non-abusive caregivers from the community.[121] The Caregiver Abuse Screen (CASE) is based on yes or no responses to 8 items. Scores on CASE distinguished abusers from non-abusers (Cronbach's alpha=0.71), and correlated with previously validated instruments: Indicator of Abuse (IOA) ($r=0.41$, $p<0.001$), and Sengstock-Hwalek Brief Abuse Screen (HSEAST) ($r=0.26$, $p<0.025$).

Two studies described screening groups of elderly adults. One study used 3 groups: victims of abuse, individuals referred to Adult Protective Services as potential victims and found not to be, and non-abused elderly adults from a family practice clinic.[122] The 15 item, HSEAST was administered to all groups and correctly classified 67-74% of cases ($p<0.001$). The HSEAST was also evaluated in a study of elderly adults living in public housing in Florida[123]. Abuse status (past abuse or none) was reported by participants and verified by a social worker who reviewed their records at the housing authority. Scores for the abused and nonabused persons were significantly different (mean total score, 4.01 vs 3.01; $P=0.049$). This study also indicated that a 9-item model performed as well as the longer 15-item version, correctly identifying 71.4% of abused persons with 17% false-positive and 12% false-negative rates.

*Summary of elder abuse and neglect screening***.** Only a few screening instruments have been developed to identify potential elderly victims of abuse or their caretakers. These instruments performed fairly well when administered in the study, but have not been tested in the primary care setting.

Interventions

Of 1,084 abstracts identified by searches of MEDLINE, CINAHL, PsycINFO, or AARP Ageline (Appendix 1), 72 articles were retrieved for further review; however, none provided data about effective interventions. Some papers provided descriptions of

individual elder abuse programs, but did not include comparison groups or health outcome measures.

Adverse Effects of Screening and Interventions for Children, Women and Elderly Adults

No studies were identified that provide data about adverse effects of screening or interventions for family and intimate partner violence for children, women, or elderly adults. No screening instrument demonstrated 100% sensitivity and specificity. False-negative tests may discourage clinicians from seeking further history and inhibit identification of those who are truly at risk. False-positive tests results, most common in low-risk populations, can lead to inappropriate labeling and punitive attitudes. Additional possible adverse effects include psychological distress and escalation of abuse and family tension, loss of personal residence and financial resources, erosion of an established family structure, loss of autonomy for the victim and, lost time from work. Children could lose contact with established support systems including neighbors, siblings, school contacts, and peer groups. Women who have an abuser can become the target of retaliation, which can lead to homicide[62].

There has been concern that patients may feel uncomfortable or threatened if asked questions about family and intimate partner violence. Most women in a study of screening in antenatal clinics believed it was a good idea (98%) and felt "ok" during the process (96%) when asked at a subsequent visit.[124] In another study, only 3% of women found screening with the Abuse Assessment Screen unacceptable when asked at 3 different points during and after pregnancy.[125] Although most women presenting with

their children to a pediatric emergency department believed screening for intimate partner violence was appropriate, many indicated that their willingness to disclose might be affected by fear of being reported to child protective services.[126] This concern was confirmed by clinicians in the study indicating that they would feel obligated to report a child to protective services if violence was present in the home.

A telephone survey of abused and non-abused women in 11 U.S. cities indicated that abused women were less likely to support mandatory reporting compared to non-abused women (59% vs 73%, $p<0.01$). Reasons included that victims would be less likely to disclose abuse, would resent someone else having control of the situation, and reporting would increase the risk of perpetrator retaliation.[127] These points were also made in another survey of women in a health maintenance organization. [128]

4. Conclusions

A summary of the types and quality of evidence for each key question is described in Table 7. We identified no studies meeting eligibility criteria that directly addressed the effectiveness of screening in a health care setting in reducing harm and premature death and disability, or the adverse effects of screening and interventions.

Our literature search and review identified several studies about screening instruments for women, a limited number about screening parents for child abuse, few of screening elderly adults for abuse, a study about screening newborns for potential abuse using clinician observation, and a study determining concern for abuse by caregivers of elderly adults.

All instruments designed to screen for child abuse and neglect were directed to parents, particularly pregnant women. These had fairly high sensitivity but low specificity when administered in the study populations, particularly when provided in a 2-step method such as the Hawaii Risk Indicators Screening Tool followed by the Kempe Family Stress Inventory. However, these have not been widely tested in other populations. Several brief instruments designed to identify women with intimate partner violence in primary care settings compared well to longer previously-validated

instruments. Studies indicated that self-administered questionnaires elicited more positive responses than interviewer-administered questionnaires in emergency department settings, but the opposite was true in a Planned Parenthood clinic. We found few studies of screening for elder abuse and they were conducted outside of health care settings.

Studies of interventions for prevention of child abuse focused on the prenatal, postpartum, and early childhood periods, corresponding to times of increased vulnerability and health care need for both women and children. A randomized controlled trial with 15 years follow-up indicated that nurse home visits during the prenatal period and for 2-years postpartum for low-income women can improve short-term and long-term abuse and neglect outcomes for children.[92-96] Several subsequent trials utilizing nurse home visits for varying lengths of time and with differing program components for pregnant and postpartum women supported these findings, although the outcomes in these studies were short-term measures of abuse-related factors. Both the U.S. Task Force on Community Preventive Services[80] and the Canadian Task Force on Preventive Health Care[81] have documented the benefits of early home visitation, and recommended this service as a component in a comprehensive health care delivery system for pregnant or postpartum women. Whether the home visit model can be adapted more broadly is not known.

Studies of interventions initiated in the primary care setting with health outcomes for children of other ages, women who are not pregnant, and elderly adults are lacking. A systematic review of health care interventions for intimate partner violence found very few studies with other types of outcomes.[72] Although referrals to community resources, shelters, social workers, and police were often increased when abused women were

identified, it is not known if these interventions improved their experiences with violence or health outcomes.[72] These studies were found to have weak study designs and provided inconsistent results.

Although the literature on family and intimate partner violence is extensive, there are few studies providing data on its detection and management to guide clinicians. Determination of performance characteristics of screening instruments, such as sensitivity and specificity, is lacking largely because of the difficulty in comparing screening scores with actual episodes of abuse. For children, mandatory reporting requires that documentation of abuse exists, but reported abuse likely captures only a fraction of all cases. In a recent survey of nurses and physicians, 71% of respondents rated the identification of maltreatment as 'rather difficult or difficult.'[129] Work pressure, unfamiliarity, and awkwardness were cited as barriers.

Existing instruments to detect child abuse are not designed for direct administration to the child, missing opportunities to screen older children in the context of usual health care. Screening for physical, emotional and/or sexual child abuse in the primary care setting can involve a variety of techniques including physical examination as well as screening questionnaires. History from the child has been stated as the most important diagnostic feature in determining child sexual abuse.[130] Findings in a routine physical examination suggestive of abuse and/or neglect, such as burns, bruises, and repeated suspicious traumatic injury, have been described.[79, 131] Many professional medical organizations including the American Academy of Physicians, American Academy of Pediatrics, the American Medical Association, and the American Academy

of Family Practitioners continue to recommend that physicians remain alert for the signs and symptoms of child abuse and neglect in the medical visit.

For women, self-reported intimate partner abuse may be a useful outcome, although, the accuracy of self-report may vary widely. The effectiveness of specific screening methods and interventions could depend on setting, delivery, culture, and population. Screening for past abuse could be useful in managing chronic conditions related to abuse such as post-traumatic stress disorder, although this has yet to be demonstrated.[132]

Self-reported abuse by the elderly may be compromised by cognitive impairment and overshadowed by other medical problems addressed in primary care clinics. Few instruments have been developed for the elderly and none have been widely validated. As with assessing child abuse, a more comprehensive approach including physical examination, caretaker and home evaluations, as well as direct questioning may be most effective.

5. Future Research

There are many gaps in the evidence for screening for family and intimate partner violence in the primary care setting. Future research could address the following issues:

- Definitions and measures of abuse and neglect need to be standardized across studies. Definitions range from broad to narrow and sometimes include emotional and sexual abuse, while reports of abuse range from unsubstantiated self-report to state agency verified reports.[133] Measures of severity and chronicity need to be refined. The development and application of standardized instruments and evaluation tools would allow a more uniform approach and opportunities to combine and compare data from various settings.
- Lack of instruments and interventions for elder abuse and neglect necessitate establishment of a research agenda to develop, test, and implement effective procedures.[134]
- Studies need to consider the influence of observer or surveillance bias.[44, 80, 94] In studies of child abuse, families are selected for interventions because of their potential for abuse and/or neglect. Therefore, families in the intervention group can and do show 'dysfunctional parenting' behavior when observed by home visitors.[103, 104] Because the control group exhibiting the abusive or neglectful

behaviors will potentially never be observed by the home visitor, reports in the intervention vs. control group may be distorted.

- Interventions are dissimilar between studies, and often inadequately described. Future research could define interventions in a more complete, standardized way. Experts in the field consider the most effective interventions for early child abuse prevention those that employ nurses who begin visiting during pregnancy, visit frequently, and address behavioral and psychological factors that influence maternal and child outcomes.[135] Programs that deviate from this model may have different results.
- Screening and intervention studies are currently confined to high-risk populations. Broader application to the general population would demonstrate if results are generalizable.
- Studies of special populations, such as cultural groups, military families, etc., are needed to address issues unique to them. Instruments require validation in languages other than English.[136]
- Existing screening instruments require more testing and validation in various medical settings, and modification of those that are too long or complex for medical practice.
- The feasibility of screening procedures and interventions in the primary care setting requires evaluation (i.e., costs, time, resources, clinician consistency, patient compliance). Strategies enlisting health systems and community programs and evaluations of them are needed.[137]

- Further studies of barriers to screening would identify areas for improvement. Although most women believe routine screening in a health care setting is acceptable to them, most clinician's voice reluctance to screen.
- More efforts in the development of instruments and procedures to be used with children age 5 to 18 years old are needed since virtually all existing instruments focus on very young children and involve parents.
- More research is required to better understand pregnancy-related violence in areas such as the course of violence during the pregnancy and postpartum periods, health implications for the mother and child, the role of violence on reproductive decision making, determination of what screening and intervention strategies are most effective for this population.
- Studies of the effectiveness of treatment programs for abused victims as well as for perpetrators[138-140] would provide needed evidence that identification and intervention can lead to improved health outcomes. These outcomes should include not only measures of reduced violence, but also improved quality of life, mental health, social support, self-esteem, productivity, and others.

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Figure 1. Relationship Between Number of Risk Factors and Percentage of Children Maltreated

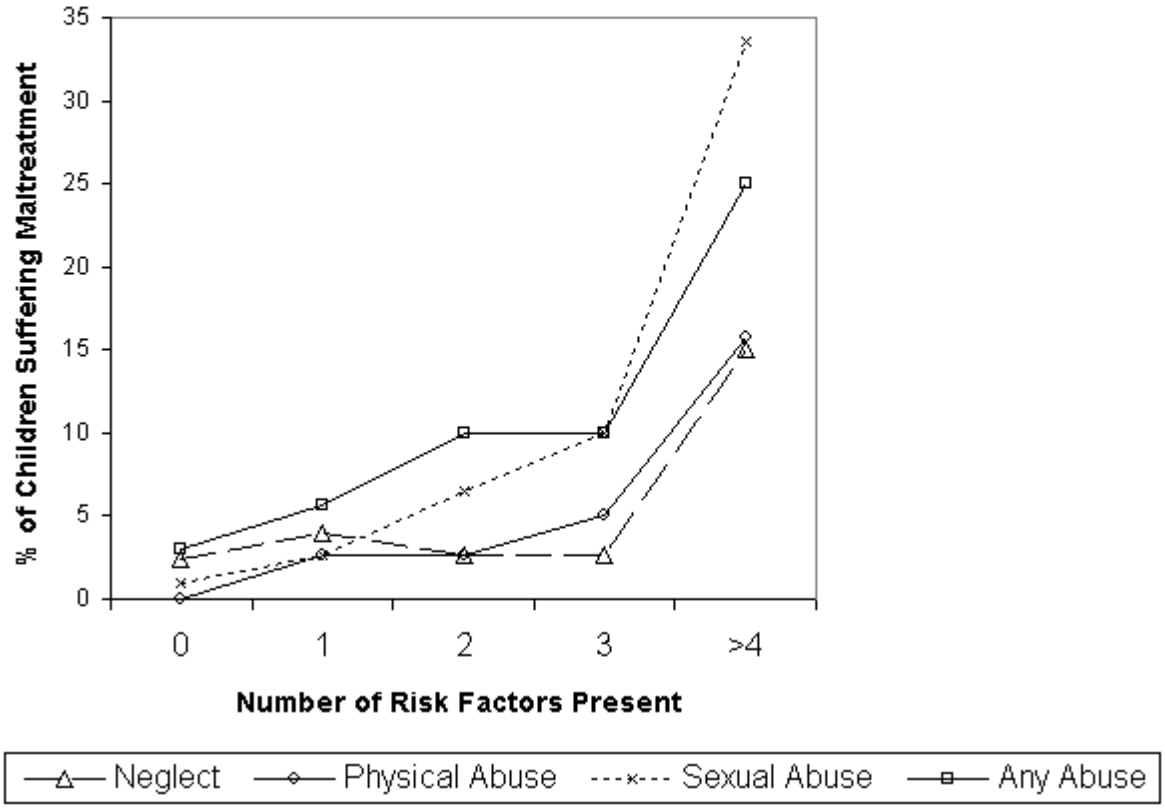
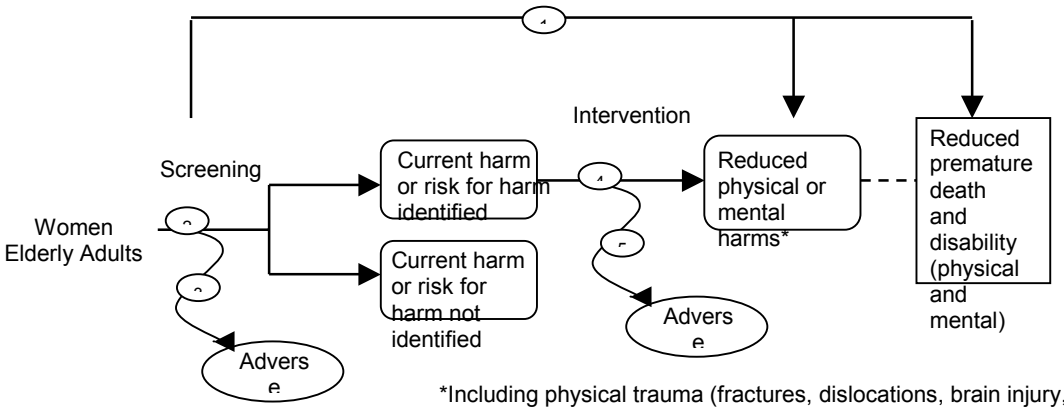


Figure 2. Analytic Framework and Key Questions



*Including physical trauma (fractures, dislocations, brain injury, etc.), unwanted pregnancy and sexually transmitted diseases, mental trauma, social isolation, and its repercussions such as depression, anxiety, nightmares, among others.

Key Questions

Arrow 1: Does screening for family and intimate partner violence reduce harm and premature death and disability?

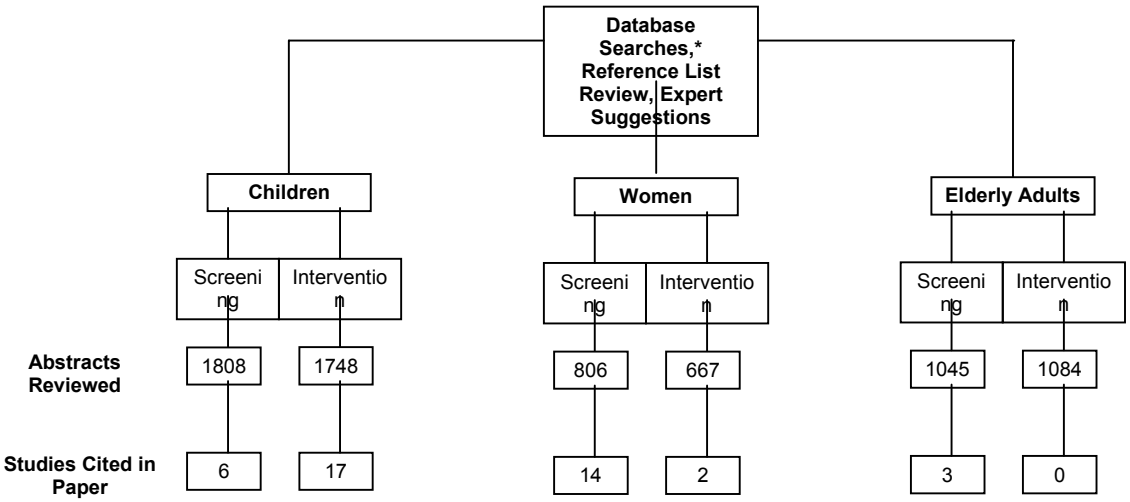
Arrow 2: How well does screening identify current harm or risk for harm from family and intimate partner violence?

Arrow 3: What are the adverse effects of screening?

Arrow 4: How well do interventions reduce harm from family and intimate partner violence?

Arrow 5: What are the adverse effects of intervention?

Figure 3. Literature Search Results



*See Appendix 1

APPENDIX 1: SEARCH STRATEGIES

Child Abuse Screening Instruments

Databases: MEDLINE (1995-2002), CINAHL (1995-2002), Health & Psychosocial Instruments (1985-2002)

1 exp Child Abuse/ or child abuse.mp.
2 (battered child$ or abused child$).mp.
3 violence against child$.mp.
4 school based.mp.
5 SCHOOLS, NURSERY/
6 (elementary school$1 or grade school$).mp.
7 4 or 5 or 6
8 7 and abuse$.mp
9 1 or 2 or 3 or 8
10 Mass Screening/ or screening.mp.
11 questionnaires/ or questionnaire$.tw.
26 interviews/ or interview$.tw.
27 13 10 or 11 or 12
14 9 and 13
15 limit 14 to (human and English language)
16 from 15 keep 1-1762

Child Abuse Interventions

Databases: MEDLINE (1966-2002), CINAHL (1982-2002)

1 exp Child Abuse/ or child abuse.mp.
2 (battered child$ or abused child$).mp.
3 violence against child$.mp.
4 school based.mp.
5 SCHOOLS, NURSERY/
6 (elementary school$1 or grade school$).mp.
7 4 or 5 or 6
8 7 and abuse$.mp.
9 1 or 2 or 3 or 8
10 PEDIATRICS/ or pediatrics.mp.
11 pediatrician$.mp.
12 Physicians, Family/ or family physicians.mp.
13 exp Primary Health Care/ or primary care.mp.
14 Family Practice/ or family practice.mp.
15 emergencies/ or emergency.mp.
16 exp emergency service, hospital/ or emergency department$.mp.
17 10 or 11 or 12 or 13 or 14 or 15 or 16
18 9 and 17
19 pc.fs. or prevent$.mp. or intervention.mp. or assessment.mp.
20 exp counseling/ or counsel$.mp.

Child Abuse Interventions (continued)

21 (patient education or questionnaire$).mp.
22 questionnaires/
23 interviews/ or interview$.mp.
24 exp clinical trials/ or clinical trial$.mp.
25 19 or 20 or 21 or 22 or 23 or 24
26 18 and 25
27 limit 26 to (human and English language)
28 from 27 keep 1-104

Database: PsycINFO (1984-2002)

1 exp Child Abuse/ or child abuse.mp.
2 (battered child$ or abused child$).mp.
3 violence against child$.mp.
4 (school based and (violence or abuse$)).mp.
5 exp Nursery Schools/ or nursery school.mp.
6 exp Elementary Schools/ or elementary school.mp.
7 grade school$.mp.
8 (5 or 6 or 7) and (abuse or violence).mp.
9 1 or 2 or 3 or 4 or 8
10 exp PEDIATRICS/ or pediatrics.mp.
11 exp Family Physicians/ or family physicians.mp.
12 exp Primary Health Care/ or exp Physicians/ or primary care.mp.
13 exp Family Physicians/ or family practice.mp.
14 exp emergency services/ or emergency$.mp.
15 exp School Nurses/ or school nurse.mp.
16 10 or 11 or 12 or 13 or 14 or 15
17 9 and 16
18 limit 17 to (human and english language)
19 prevention/ or prevent$.mp. or intervention.mp. or assessment.mp.
20 exp counseling/ or counsel$.mp.
21 exp Client Education/ or patient education.mp.
22 questionnaires/ or questionnaire$.mp.
23 exp INTERVIEWS/ or interviews.mp.
24 clinical trial$.mp.
25 exp At Risk Populations/ or exp Cohort Analysis/ or cohort study.mp.
26 19 or 20 or 21 or 22 or 23 or 24 or 25
27 18 and 26
28 from 27 keep 1-132

Database: ERIC (1989-2002)

1 Child Abuse
2 Family Practice
3 Physicians
4 1 and 2 or 3

Child Abuse Interventions (continued)
Database: Cochrane Database of Systematic Reviews & Controlled Trials
Key word search: **child abuse**

Intimate Partner Violence Screening Instruments
Databases: MEDLINE (1966-2002), PsycINFO (1984-2002), Health & Psychosocial Instruments (1985-2002)
1 spouse abuse/or domestic violence.mp. or battered woman.mp.
2 (screening or identity or early detection).mp.
3 questionnaires.mp.
4 physicians, family/ or "family physicians".mp.
5 primary health care/ or "primary care".mp.
6 family practice/or "family practice".mp.
7 2 or 3 or 4 or 5 or 6
8 1 or 7
9 limit 8 to (human and English)

Intimate Partner Violence Interventions
Databases: MEDLINE (1966-2002), CINAHL(1982-2002)
1 spouse abuse/ or domestic violence.mp. or battered women.mp.
2 ((intimate partner or life partner or partner or wife or husband) and (violence or abuse)).mp.
3 1 or 2
4 internal medicine.mp.
5 Physicians, Family/ or family physicians.mp.
6 exp Primary Health Care/ or primary care.mp.
7 Family Practice/ or family practice.mp.
8 EMERGENCIES/ or emergency.mp.
9 exp emergency service, hospital/ or emergency department$.mp.
10 OBSTETRICS/ or "OBSTETRICS AND GYNECOLOGY DEPARTMENT, HOSPITAL"/ or obstetrics.mp.
11 4 or 5 or 6 or 7 or 8 or 9 or 10
12 3 and 11
13 pc.fs. or prevent$.mp. or intervention.mp. or assessment.mp.
14 exp counseling/ or counsel$.mp
15 (patient education or questionnaire$).mp.
16 questionnaires/
17 interviews/ or interview$.mp.
18 exp clinical trials/ or clinical trial$.mp.
19 13 or 14 or 15 or 16 or 17 or 18
20 12 and 19
21 limit 20 to (human and English language)
22 from 21 keep 1-151

Intimate Partner Violence Interventions (continued)

Database: PsycINFO (1984-2002)

1 exp Partner Abuse/ or spouse abuse.mp.
2 exp Battered Females/
3 exp Family Violence/ or exp Victimization/ or exp Emotional Abuse/ or battered women.mp.
4 3 and (women or females).mp.
5 ((intimate partner$ or life partner$ or partner or wife or husband) and (violence or abuse)).mp.
6 1 or 2 or 4 or 5
7 internal medicine.mp.
8 exp Family Physicians/ or family physicians.mp.
9 exp Primary Health Care/ or primary care.mp.
10 exp Family Physicians/ or family practice.mp.
11 exp emergency services/ or emergenc$.mp.
12 exp OBSTETRICS/ or obstetrics.mp.
13 exp GYNECOLOGY/ or gynecology.mp.
14 7 or 8 or 9 or 10 or 11 or 12 or 13
15 6 and 14
16 (prevent$ or intervention or assessment).mp. [mp=title, abstract, heading word, table of contents, key phrase identifiers]
17 exp counseling/ or counsel$.mp.
18 exp Client Education/ or patient education.mp.
19 questionnaires/ or questionnaire$.mp.
20 exp interviews/ or interview$.mp.
21 clinical trial$.mp.
22 exp at risk populations/ or cohort study$.mp.

Elder Abuse Screening Instruments

Databases: MEDLINE (1966-2002), PsycINFO (1984-2002), Health & Psychosocial Instruments (1985-2002)

1 elder abuse.mp.
2 (domestic violence or family violence).mp.
3 (elder$ or aged or old or ageing).mp.
4 (vulnerable or disabled or handicapped).mp.
5 (2 or 4) and 3
6 1 or 5
7 mass screening/ or screening.mp.
8 questionnaires/ or questionnaire$.tw.
9 interview/ or interview$.tw.
10 7 or 8 or 9
11 6 and 10
12 limit 11 to (human and English language)
13 from 12 keep 1-1009

Elder Abuse Screening Instruments (continued)

Database: AARP Ageline (1978-2002)

1 elder abuse.mp. [mp=title, abstract, descriptors, identifiers]
2 ((family or domestic) and (abuse or violence)).mp.
3 (elder$ or old or ageing or aging or aged or geriatric).mp.
4 2 and 3
5 1 or 4
6 (internal medicine or geriatrics or family physicians or family practice).mp. [mp=title, abstract, descriptors, identifiers]
7 (primary care or emergency or emergency services).mp. [mp=title, abstract, descriptors, identifiers]

Elder Abuse Interventions

Databases: MEDLINE (1966-2002), CINAHL (1982-2002)

1 elder abuse.mp.
2 (domestic violence or family violence).mp.
3 (elder$ or aged or old or ageing).mp.
4 2 and 3
5 (vulnerable or disabled or handicapped).mp.
6 1 or 4 or 5
7 GERIATRICS/ or geriatrics.mp.
8 Internal Medicine/ or internal medicine.mp.
9 Physicians, Family/ or family physicians.mp.
10 exp Primary Health Care/ or primary care.mp.
11 Family Practice/ or family practice.mp
12 EMERGENCIES/ or emergency.mp.
13 exp Emergency Service, Hospital/ or emergency department.mp.
14 7 or 8 or 9 or 10 or 11 or 12 or 13
15 6 and 14
16 limit 15 to (human and English language)
17 pc.fs. or prevent$.mp. or intervention.mp. or assessment.mp.
18 exp COUNSELING/ or counseling.mp.
19 patient education.mp.
20 questionnaires.mp.
21 QUESTIONNAIRES/
22 INTERVIEWS/ or interviews.mp.
23 exp clinical trials/ or clinical trial$.mp.
24 17 or 18 or 19 or 20 or 21 or 22 or 23
25 16 and 24
28 from 25 keep 1-129

Elder Abuse Interventions (continued)

Database: PsycINFO (1984-2002)

1 elder abuse.mp.
2 (domestic violence or family violence).mp.
3 (elder$ or aged or aging or ageing or old or geriatric).mp.
4 (vulnerable or disabled or handicapped).mp.
5 3 or 4
6 2 and 5
7 1 or 6
8 exp GERIATRICS/ or geriatrics.mp.
9 internal medicine.mp. or exp Physicians/
10 exp Family Physicians/ or family physicians.mp.
11 exp Primary Health Care/ or primary care.mp.
12 exp Family Physicians/ or exp General Practitioners/ or family practice.mp.
13 exp emergency services/ or emergency$.mp.
14 8 or 9 or 10 or 11 or 12 or 13
15 7 and 14
16 limit 15 to (human and English language)
17 prevention/ or prevent$.mp. or intervention.mp. or assessment.mp.
18 exp counseling/ or counsel$.mp. or assess$.mp.
19 exp Client Education/ or patient education.mp.
20 questionnaires/ or questionnaire$.mp.
21 exp interviews/ or interview$.mp.
22 clinical trial$.mp.
23 exp at risk populations/ or exp cohort analysis/ or cohort stud$.mp.
24 17 or 18 or 19 or 20 or 21 or 22 or 23
25 16 and 24
26 from 25 keep 1-36

Database: AARP Ageline (1978-2002)

1 elder abuse.mp. [mp=title, abstract, descriptors, identifiers]
2 ((family or domestic) and (abuse or violence)).mp.
3 (elder$ or old or ageing or aging or aged or geriatric).mp.
4 2 and 3
5 1 or 4
6 (internal medicine or geriatrics or family physicians or family practice).mp. [mp=title, abstract, descriptors, identifiers]
7 (primary care or emergency or emergency services).mp. [mp=title, abstract, descriptors, identifiers]
8 6 or 7
9 5 and 8
10 from 9 keep 1-75

APPENDIX 2: STUDY QUALITY RATING CRITERIA

Diagnostic Accuracy Studies

Criteria:

- Screening test relevant, available for primary care, adequately described
- Study uses a credible reference standard, performed regardless of test results
- Reference standard interpreted independently of screening test
- Handles indeterminate results in a reasonable manner
- Spectrum of patients included in study
- Sample size
- Administration of reliable screening test

Definition of ratings based on above criteria:

Good: Evaluates relevant available screening test; uses a credible reference standard; interprets reference standard independently of screening test; reliability of test assessed; has few or handles indeterminate results in a reasonable manner; includes large number (more than 100) broad-spectrum patients with and without disease.

Fair: Evaluates relevant available screening test; uses reasonable although not best standard; interprets reference standard independent of screening test; moderate sample size (50 to 100 subjects) and a "medium" spectrum of patients.

Poor: Has important limitation such as: uses inappropriate reference standard; screening test improperly administered; biased ascertainment of reference standard; very small sample size of very narrow selected spectrum of patients.

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 intension-to-treat analysis for RCTs

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

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.

APPENDIX 3: SCREENING INSTRUMENTS

Child Abuse and Neglect

Hawaii Risk Indicators Screening Tool

Based on medical record or interview; score true, false, unknown
1. Unmarried
2. Partner unemployed
3. Inadequate income
4. Unstable housing
5. No phone
6. Education under 12 years
7. Inadequate emergency contacts
8. History of substance use
9. Inadequate prenatal care
10. History of abortions
11. History of psychiatric care
12. Abortion unsuccessfully sought or attempted
13. Adoption sought or attempted
14. Marital or family problems
15. History of depression

Positive screen: true score on either item number 1, 9, or 12; two or more true scores; seven or more unknowns

Duggan A, Windham A, McFarlane E, Fuddy L, Rohde C, Buchbinder S, Sia C. Hawaii's Healthy Start program of home visiting for at-risk families: evaluation of family identification, family engagement, and service delivery. *Pediatrics* 2000;105;250-259.

Kempe Family Stress Inventory (KFI)

Score one point for each positive response
1. Parent history of abuse as child (beaten or deprived)
2. Parent history of criminal activity, mental illness, or substance abuse history
3. Previous or current Child Protective Services involvement
4. Parent with isolation, low self-esteem, or depression
5. Multiple stresses or crises
6. Potential for violent temper outbursts
7. Unrealistic, rigid expectations of child's behavior or development
8. Harsh punishment of child
9. Child perceived by parent to be difficult and/or provocative
10. Child unwanted or at risk for poor bonding

Item scoring for each parent: 0=no problem, 5=mild problem, 10=severe problem
positive assessment: a total score of 25 or more for either parent

Murphy S, Orkow B, Nicola RM. Prenatal prediction of child abuse and neglect: a prospective study. *Child Abuse & Neglect.* 1985;9(2):225-235.
Korfmacher J. The Kempe Family Stress Inventory: A review. *Child Abuse & Neglect.* 2000;24(1):129-140.

Parenting Profile Assessment (PPA)

Questions directed to mother (score for item):

- Moderate to severe discipline as a child (5)
- Past or present spousal abuse (3)
- Perception of stress (4.5)
- Moderate to severe life change score (4.5)
- High school education or less (3)
- Rare involvements out of home (1.25)
- Little or no prenatal care (2.5)
- Does not feel good about herself (3.5)
- Feels like running away (3)
- Age at first birth under 20 (2)
- Unlisted or no phone (1)
- Difficulty communicating with family members (3.5)
- History of unemployment over a two-month period (of usual provider) (2)
- Currently under or unemployed (of usual provider) (2)
- Family involvements with police (2)
- Less than $20, 000 a year income (2.5)
- Curses at child(ren) when disciplining (3.5)
- Child(ren) shows evidence of punishment (3)
-
- Perceives discipline of children as harsh (3)
- Calls child(ren) names when disciplining (3.5)

For each "yes" answer, add scores for items. Also assess for presence of clustered items (4,5,15,16,19).
Possible risk: 21 points or more or presence of all items in cluster
Low risk: less than 21 points and not all items in cluster present
Uncertain risk: unsure of answers to questions

Anderson CL. The parenting profile assessment: screening for child abuse. *Applied Nursing Research.* 1993;6(1):31-38.

Intimate Partner Violence Against Women

The Partner Abuse Interview

"Many people, at one time or another, get physical with their partner when they're angry. For example, some people threaten to hurt their partners, some push or shove, and some slap or hit. I'm going to ask you about a variety of common behaviors, and I'd like you to tell me if your partner did these during the past year."

For each behavior answered no, put a "zero" in the appropriate box and ask if patient was bruised or injured in any other way.
If answer is yes, code "1" for no injury, "2" for possible injury, and "3" for injury.

Has your partner…		Yes/No	Injury Codes
1.	Thrown something at you	( )	1 2 3
2.	Pushed, grabbed, or shoved you	( )	1 2 3
3.	Slapped you	( )	1 2 3
4.	Kicked, bit, hit you with a fist	( )	1 2 3
5.	Hit or tried to hit you with an object	( )	1 2 3
6.	Beat you up	( )	1 2 3
7.	Threatened you with a gun or knife	( )	1 2 3
8.	Used a gun or knife	( )	1 2 3
9.	Forced you to have sex when you didn't want to	( )	1 2 3
10.	Other	( )	1 2 3

Ask the following questions if the answer to any of the above questions is anything other than "zero"

11. "Some people are afraid that their partners will physically hurt them if they argue with their partners or do something their partners don't like. How much would you say you are afraid of this happening to you?"

    ( ) Not at all (1)
    ( ) A little (2)
    ( ) Quite a bit/Very afraid (3)

Pan HS, Ehrensaft MK, Heyman RE, O'Leary KD, Schwartz R. Evaluating domestic partner abuse in a family practice clinic. *Family Medicine 1997*;29(7):492-5.

Screening Questions for Domestic Violence

Have you ever had any of the following; answer yes or no?

1. Has your male partner (husband, boyfriend) hit, slapped, kicked or otherwise physically hurt you?
2. If you are pregnant, has your male partner hit, slapped, kicked, pushed, or otherwise physically hurt you since you've been pregnant?
3. Has your male partner forced you to have sexual activities?
4. Are you afraid of your male partner?

A "yes" response to any question is considered positive for partner violence.

McFarlane J, Christoffel K, Bateman L, Miller V, Bullock L. Assessing for abuse: self-report versus nurse interview. *Public Health Nursing* 1991;8(4):245-250.

Domestic Abuse Assessment Questionnaire

Answer yes or no

1. Have you ever been emotionally or physically abused by your partner or someone important to you?
2. Within the last year, have you been hit, slapped, kicked, or otherwise physically hurt by someone?
3. Since your pregnancy began, have you been hit, slapped, kicked, or otherwise physically hurt by someone?
4. Within the last year, has anyone forced you to have sexual activities?
5. Are you afraid of your partner or anyone else?

A "yes" response on any question is considered positive for partner violence.

Canterino JC, VanHorn LG, Harrigan JT, Ananth CV, Vintzileos AM. Domestic abuse in pregnancy: a comparison of a self-completed domestic abuse questionnaire with a directed interview. *American Journal of Obstetrics and Gynecology* 1999;181:1049-51.

Abuse Assessment Screen (AAS) for use in Pregnancy

1. Have you ever been emotionally or physically abused by your partner or someone important to you? Yes No

2. Within the last year, have you been hit, slapped, kicked or otherwise physically hurt by someone? Yes No

   If yes, by whom? (circle all that apply)
   Husband Ex-husband Boyfriend Stranger Other Multiple No. of time

3. Since you've been pregnant, have you been hit, slapped, kicked or otherwise physically hurt by someone? Yes No

   If yes, by whom? (circle all that apply)
   Husband Ex-husband Boyfriend Stranger Other Multiple No. of times

Mark the area of injury on the body map (map included).
Score the most severe incident to the following scale:
1 = Threats of abuse including use of a weapon
2 = Slapping, pushing; no injuries and/or no lasting pain
3 = Punching, kicking, bruises, cuts, and/or continuing pain
4 = Beaten up, severe contusions, burns, broken bones
5 = Head, internal, and/or permanent injury
6 = Use of weapon, wound from weapon

4. Within the past year, has anyone forced you to have sexual activities?
Yes No

If yes, by whom? (circle all that apply)
Husband Ex-husband Boyfriend Stranger Other Multiple No. of times

5. Are you afraid of your partner or anyone you listed above?
Yes No

Responses are recorded on a data collection form, no other scoring information was provided.

Norton LB, Peipert JF, Zierler S, Lima B, and Hume L. Battering in pregnancy: an assessment of two screening methods. *Obstetrics and Gynecology* 1995;85(3):321-322.

Partner Violence Screen (PVS)

1. Have you been hit, kicked, punched, or otherwise hurt by someone within the past year? If so, by whom?
2. Do you feel safe in your current relationship?
3. Is there a partner from a previous relationship who is making you feel unsafe now?

A "yes" response on any question is considered positive for partner violence.

Feldhaus KM, Koziol-McLain J, Amsbury HL, Norton IM, Lowenstein SR, Abbott JT. Accuracy of three brief screening questions for detecting partner violence in the emergency department. *JAMA* 1997;277(17): 1357-1361.

The Hurt, Insult, Threaten, and Scream Scale (HITS)

The HITS scale is a paper-and-pencil instrument that is comprised of the following four items: "How often does your partner: physically **H**urt you, **I**nsult you or talk down to you, **T**hreaten you with harm, and **S**cream or curse you?"

Patients responded to each of these items with a 5-point frequency format: never, rarely, sometimes, fairly often, and frequently. Score values could range from a minimum of 4 to a maximum of 20.

Sherin KM, Sinacore JM, Li X, Zitter RE, and Shakil A. HITS: a short domestic violence screening tool for use in a family practice setting. *Family Medicine* 1998;30(7):508-12.

Emergency Department Domestic Violence Screening Questions

1. Does anyone in your family have a violent temper?
2. During an argument at home have you ever worried about your safety or the safety of your children?
3. Many women who present to the Emergency Department with similar injuries or complaints are victims of violence at home. Could this be what has happened to you?
4. Would you like to speak to someone about this?
5. Were any of the previous visits to the Emergency Department prompted by an injury or symptom suffered as a victim of violence at home?

A "yes" response to question 3 or "yes" to 1 or 2 and 4 would classify a person as being a victim of partner violence. A "yes" response to question 1 or 2 or both would classify a person as probably being a victim of partner violence. A "yes" response to question 5 would classify the person as having been a victim of partner violence.

Morrison LJ, Allan R, Grunfeld A. Improving the emergency department detection rate of domestic violence using direct questioning. *Journal of Emergency Medicine* 2000;19(2):117-124.

Women's Experience with Battering (WEB) Scale

Description of how your partner makes you feel.	Agree strongly	Agree somewhat	Agree a little	Disagree a little	Disagree somewhat	Disagree strongly
1. He makes me feel unsafe even in my own home.	6	5	4	3	2	1
2. I feel ashamed of the things he does to me.	6	5	4	3	2	1
3. I try not to rock the boat because I am afraid of what he might do.	6	5	4	3	2	1
4. I feel like I am programmed to react a certain way to him.	6	5	4	3	2	1
5. I feel like he keeps me prisoner.	6	5	4	3	2	1
6. He makes me feel like I have no control over my life, no power, no protection	6	5	4	3	2	1
7. I hide the truth from others because I am afraid not to.	6	5	4	3	2	1
8. I feel owned and controlled by him.	6	5	4	3	2	1
9. He can scare me without laying a hand on me.	6	5	4	3	2	1
10. He has a look that goes straight through me and terrifies me.	6	5	4	3	2	1
Scoring: To score WEB scale, sum responses for items 1-10. Range of scores is 10-60. Score $\geq$ 20 indicates battering.						

Coker AL, Pope BO, Smith PH, Sanderson M, Hussey JR. Assessment of clinical partner violence screening tools. *Journal of American Medical Women's Association* 2001;56:19-23.

Index of Spouse Abuse, Partner Abuse Scale: Physical (ISA-P)

	All of the time	Most of the time	A good part of the time	Some of the time	A little of the time	Very rarely	None of the time
1. My partner pushes and shoves me around violently.	7	6	5	4	3	2	1
2. My partner hits and punches my arms and body.	7	6	5	4	3	2	1
3. My partner threatens me with a weapon like a gun or a knife.	7	6	5	4	3	2	1
4. My partner beats me so hard I must seek medical help.	7	6	5	4	3	2	1
5. My partner beats me when he drinks.	7	6	5	4	3	2	1
6. My partner hits, punches, or kicks my face and head.	7	6	5	4	3	2	1
7. My partner beats me in the face so badly that I'm ashamed to be seen in public.	7	6	5	4	3	2	1
8. My partner tries to choke, strangle or suffocate me.	7	6	5	4	3	2	1
9. My partner knocks me down and then kicks or stomps me.	7	6	5	4	3	2	1
10. My partner throws dangerous objects at me.	7	6	5	4	3	2	1
11. My partner has injured me with a weapon like a gun, knife or other object.	7	6	5	4	3	2	1
12. My partner has broken one or more of my bones.	7	6	5	4	3	2	1
13. My partner physically forces me to have sex.	7	6	5	4	3	2	1
14. My partner badly hurts me while we are having sex.	7	6	5	4	3	2	1
15. My partner injures my breast or genitals	7	6	5	4	3	2	1
Scoring: Sum the responses, subtract the number of questions actually answered (n = 15) and multiply by 100, then divide by 90. Scores > 2 indicate physical interpersonal violence.							

Coker AL, Pope BO, Smith PH, Sanderson M, Hussey JR. Assessment of clinical partner violence screening tools. *Journal of American Medical Women's Association* 2001;56:19-23.

Woman Abuse Screening Tool (WAST)

1. In general how would you describe your relationship?
   a lot of tension some tension no tension
2. Do you and your partner work out arguments with …
   great difficulty some difficulty no difficulty
3. Do arguments ever result in you feeling put down or bad about yourself?
   often sometimes never
4. Do arguments ever result in hitting, kicking or pushing?
   often sometimes never
5. Do you ever feel frightened by what your partner says or does?
   often sometimes never
6. Has your partner ever abused you physically?
   often sometimes never
7. Has your partner ever abused you emotionally?
   often sometimes never
8. Has your partner ever abused you sexually?
   often sometimes never

To score this instrument, the responses are assigned a number. For the first question "a lot of tension" gets a score of 1 and the other 2 get a 0. For the second question "great difficulty" gets a score of 1 and the other 2 get 0. For the remaining questions "often" gets a score of 1, "sometimes" gets a score of 2, and "never" gets a score of 3.

Brown JB, Lent B, Schmidt G, Sas G. Application of the Woman Abuse Screening Tool (WAST) and WAST-Short in the family practice setting. *Journal of Family Practice* 2000;49(10):896-903.

Domestic Violence Screening Tool

1. Have you ever been threatened, hit, punched, slapped, or injured by a husband, boyfriend, or significant other you had at any point in the past?
2. Have you ever been hurt or frightened so badly by a husband, boyfriend, or significant other that you were in fear for your life?
3. Have you been hit, punched, slapped, or injured by a husband, boyfriend, or significant other within the last month?
4. Are you currently involved in a close relationship with a husband, boyfriend, or significant other?
5. Are you here today for injuries received from your husband, boyfriend, or significant other?
6. Do you often feel stressed due to fear of threats or violent behavior from your current husband, boyfriend, or significant other?
7. Has your current husband, boyfriend, or significant other ever hit, punched, slapped, or injured you?
8. Do you think it is likely that your husband, boyfriend, or significant other will hit, slap, punch, kick, or otherwise hurt you in the future?
9. Do you think you will be safe if you go back home to your husband, boyfriend, or significant other at this time?

A "yes" response to any question is considered positive for partner violence.

Furbee, PM, Sikora, R, Williams, JM, and Derk, SJ. *Annals of Emergency Medicine* 1998; 31(4):495-498.

Brief Abuse Screen for the Elderly (BASE)

Please respond to every question (as well as you can estimate) concerning all clients ___ years or over who are caregivers (give regular help of any kind) or care receivers:

1. Is the client an older person or caregiver? Yes___ No___

2. Is the client a caregiver of an older person? Yes___ No___

3. Do you suspect abuse? (see also #4 and #5) Yes___ No___

   i) By caregiver (comments)_____

1	2	3	4	5
no, not at all	only slightly, doubtful	possibly,probably, somewhat	yes, quite likely	definitely

   ii) By care receiver or other (comments)_____

1	2	3	4	5
no, not at all	only slightly, doubtful	possibly,probably, somewhat	yes, quite likely	definitely

4. If any answer for #3 except "no, not at all," indicate what kind(s) of abuse(s) is (are) suspected.

   i) physical____ ii) psychosocial____ iii) financial____
   iv) neglect____ (includes passive and active)

5. If abuse is suspected, about how soon do you estimate that intervention is needed?

1	2	3	4	5
immediately	within 24 hrs	24-72 hrs	1 week	2 or more weeks

Scoring information was not provided.

Reis M, Nahmiash D. Validation of the Indicators of Abuse (IOA) screen. *The Gerontologist* 1998; 38(4):471-480.

Hwalek-Senstock Elder Abuse Screening Test (HSEAST)

Violation of Personal Rights or Direct Abuse

1. Does someone else make decisions about your life – like how you should live or where you should live?
2. Does someone in your family make you stay in bed or tell you you're sick when you know you're not?
3. Has anyone forced you to do things you didn't want to do?
4. Has anyone taken things that belong to you without your OK?
5. Has anyone close to you tried to hurt you or harm you recently?

Characteristics of Vulnerability

6. Do you have anyone who spends time with you, taking you shopping or to the doctor?
7. Are you sad or lonely often?
8. Can you take your own medication and get around by yourself?

Potentially Abusive Situations

9. Are you helping to support someone?
10. Do you feel uncomfortable with anyone in your family
11. Do you feel that nobody wants you around?
12. Does anyone in your family drink a lot?
13. Do you trust most of the people in your family?
14. Does anyone tell you that you give them too much trouble?
16. Do you have enough privacy at home?

A response of "no" to items 6, 8, 13, and 15 and a response of "yes" to all other score in the abused direction.

Neale AV, Hwalek MA, Scott RO, Sengstock MC, Stahl C. Validation of the Hwalek-Sengstock Elder Abuse Screening Test. *Journal of Applied Gerontology* 1991; 10(4): 406-418.

The Caregiver Abuse Screen (Reis-Nahmiash CASE)

Please answer the following questions as a helper or caregiver with yes or no

1. Do you sometimes have trouble making (___) control his/her temper or aggression?
2. Do you often feel you are being forced to act out of character or do things you feel bad about?
3. Do you find it difficult to manage (___'s) behavior?
4. Do you sometimes feel that you are forced to be rough with (___)?
5. Do you sometimes feel you can't do what is really necessary or what should be done for (___)?
6. Do you often feel you have to reject or ignore (___)?
7. Do you often feel so tired and exhausted that you cannot meet (___ 's) needs?
8. Do you often feel you have to yell at (___)?

Scoring information was not provided.

Reis M. Validation of the caregiver abuse screen (CASE). *Canadian Journal on Aging* 1995; 14(52): 45-60.

Table 1. Studies of Child Abuse and Neglect Screening Instruments

Author, Year	N	Population/Setting	Instruments	Results	Quality Rating/ Limitations
Self-Administered Questionnaires					
CCAPR, 1996a, b; Korfmacher, 2000[86]; Duggan, 2000[87]	287	Pregnant women at hospital obstetric clinics in 6 counties in Oahu (Hawaii Healthy Start) Mean age 23 65% poor; 89% multi-cultural; 40% poor maternal mental health; 45% domestic violence in the home; 30% parental substance use; 28% no high school diploma	2 step screening: 1) 15 item Hawaii Risk Indicators Screening Tool (medical record or interview) 2) Kempe Family Stress Inventory (KFI)	89% sensitivity 28% specificity with high scores on the Child Abuse Potential (CAP) inventory	FAIR: No abuse outcomes, high attrition
Stevens - Simon, 2001[85]	262	Adolescents (13-19 yrs old) in a maternity program at the University of Colorado Hospital in Denver 32% African American 22% Hispanic 92% Medicaid recipients 94% unmarried	Kempe Family Stress Inventory (KFI)	At 1 & 2 years, the KFI was the only significant predictor of maltreatment using multiple outcome measures (RR 8.41, 5.77-10, p=0.0009; RR 5.19,1.99-13.60, p=0.004).	GOOD-FAIR: Differential loss to follow up
Katzev, 1997[88]	2,870	At risk pregnant women from 12 counties in Oregon (Healthy Families) 72% single parents 68% with history of child abuse or neglect 57% <high school education 37% history of substance abuse 29% 17 yrs or younger	2 step screening: 1) 15 item Hawaii Risk Indicators Screening Tool (medical record or interview) 2) If positive then, Kempe Family Stress Inventory (KFI) (score >25 is high stress)	1,350 were given the KFI. Score was highly correlated with maltreatment rates (per 1000 children): 7 for low risk scores, 18 moderate, 45 high, and 172 severe. Sensitivity 97%, specificity 21% for scores in high-severe risk range.	FAIR-POOR: Many confirmed reports were made by home visitors to high-risk homes (surveillance bias)

Administered by Clinical Staff					
Anderson, 1993[90]	185	Abusive and nonabusive mothers obtained by a national sample of female nurses contacted through advertising and a mailing list	Parenting Profile Assessment (PPA), 21-item nurse interview for primary care setting	75% sensitivity 86% specificity for self reported abuse; Most sensitive to high stress, poor marital relationships.	POOR: Only self-report of abuse by mothers, no actual abuse measured or verified, small sample with only 15 self-reported abusers
Brayden, 1993[89]	1,089	Pregnant women receiving prenatal care at Metropolitan Nashville General Hospital, TN <23 yrs old 60% single 68% Caucasian 25% unemployed	Maternal History Interview-2: open-ended questions and subscales including issues of parenting skills, personality, discipline philosophy, life stress, and others.	The Maternal History Inteview-2 predicted child abuse, but not neglect or sexual abuse. High risk group had 6.6% with child abuse reports compared with 2.3% of low risk (RR 3.02, CI 1.02-8.90).	FAIR: Participation was low, requires trained interviewers
Clinician Observation					
Leventhal, 1996[91]	114 cases 114 controls	Children at the Primary Care Center at Yale New Haven Hospital referred to the hospital's child abuse committee from the postpartum ward by clinicians.	Clinician judgment of potential child abuse or neglect based on a number of criteria including parental substance use, income, social support, previous child abuse or neglect, and parenting behavior.	After controlling for baseline variables, 1.8-fold increase in the rate of subsequent hospitalizations of the high risk children compared to others ($p<0.05$).	POOR: Risk criteria not fully defined or standardized

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Design	N	Population/Setting	Recruitment	Inclusion Criteria	Duration	Intervention
Olds, 1986[92] (birth through 2 years)	RCT	400 families: 1) N=90 2) N=94 3) N=100 4) N=116	Pregnant women with no previous live births; 47% >19 years; 62% unmarried; 61% social class IV and V (semi-skilled and unskilled laborers); small, semi-rural county of 100,000 residents in New York State.	Recruited through: a) health department ante-partum clinic b) obstetrician's offices c) Planned Parenthood d) variety of other health and human services agencies.	Enrollment before 30th week of pregnancy and 85% had 1 or more of the following risk factors: a) <19 yrs old b) single-parent status c) low SES	2 yrs	4 groups: 1) no services 2) free transportation to medical services 3) same as group 2, plus a nurse home visit every 2 weeks during pregnancy 4) same as group 3, plus nurse home visits through child's age 2.
Olds, 1994[93] (birth through 3 years)	RCT	400 (minus 15-21% in each group)	14 different states at follow-up.	Families were contacted after the study child became 3 years old.	Above	2 yr intervention; 3 yr follow-up	Above
Olds, 1995[94] (birth through 4 years)	RCT	56 families with verified abuse from original 400 recruited	Above	The subset with verified abuse was contacted after the study child became 4 years old.	From the Olds 1986 sample, included children had state verified reports of child abuse or neglect during the first 4 yrs of the child's life.	2 yr intervention; 4 yr follow-up	Above

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Assessment	Results	Quality Rating
Olds, 1986[92] (birth through 2 years)	Interviews of mothers and assessments of mothers and infants were made at 6, 10, 12, 22, and 24 months of the infant's life using Bayley Scale, Cattell Scales, & Caldwell Home Observation checklist. Outcomes were determined by review of records for the presence of abuse or neglect from the department of social services, emergency room visits, and other medical visits.	19% of the comparison group (group 1) and 4% of the nurse visited group (group 4) were abused or neglected (p=0.07) at the 2-year assessment. Babies in the nurse visited group showed higher developmental quotient (p=0.06) and fewer visits to the emergency room for accidents and poisonings at 2 yrs of age (p=0.03).	GOOD
Olds, 1994[93] (birth through 3 years)	As stated in Olds 1986. In addition, family data and Child Protective Service (CPS) records for the first 3 years of life were reviewed.	Child abuse and neglect: no difference between groups; fewer hazards in the household (p=0.04); fewer health care encounters (emergency room) (p=0.0008); fewer injuries and ingestions (p=0.03); fewer child/behavioral/parental coping problems (p=0.006); higher level of punishment (no significance given) for group 4.	GOOD
Olds, 1995[94] (birth through 4 years)	As stated in Olds 1986. In addition, family data and CPS records for the first 4 years of life were reviewed.	No differences in the numbers of abuse or neglect notations coded in the CPS records, the presence of different types of maltreatment, the combination of types of maltreatment, or the extent to which children were removed from the home. Maltreated children who had nurse visits made 84% fewer visits to a physician for injuries or ingestions (p=0.01), and 38% fewer visits to the emergency department (p=0.008).	GOOD

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Design	N	Population/Setting	Recruitment	Inclusion Criteria	Duration	Intervention
Olds, 1997[95] (birth through 15 years)	RCT	324 families	Above	Families in the original study were contacted; 81% of the original sample agreed to participate.	As stated in Olds 1986.	2 yr intervention; 15 yr follow-up	Above
Eckenrode, 2000[96] (sample from Olds 1986)	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 dropped from the analysis because it did not differ from the control group.	All 400 participants in the original study were contacted to participate.	As stated in Olds 1986.	2 yr intervention; 15 yr follow-up	Above
Barth, 1991[97]	RCT	control=94 intervention =97	Pregnant women in CA; 45% White, 31% Latino, 17% Black, 7% other; median age 23.5 yrs; 70% had family incomes <$10,000; 90% scored above the mean on Child Abuse Potential Inventory (CAP).	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.	Approx. 6 months	Control group received referrals to social and health services; intervention group had home visits (ave. 11).

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Assessment	Results	Quality Rating
Olds, 1997[95] (birth through 15 years)	The 15-year follow-up interview included a life history calendar, self-report of arrests, convictions, state and government living assistance, and drug and alcohol use. CPS and NY state arrest and conviction records were also reviewed.	Parents in the nurse visited group were perpetrators of child abuse and neglect in fewer verified reports ($p<0.001$). The effect was greater for women who were unmarried and had low SES ($p<0.001$), who also reported less impairment by alcohol or other drugs ($p=0.005$), fewer arrests ($p<0.001$), fewer convictions ($p<0.008$), and less jail time ($p<0.001$) than those in the control group. The effect of the program on the number of verified child abuse reports was especially strong for the 4-15 year period after the birth of the child (no data given).	GOOD
Eckenrode, 2000[96] (sample from Olds 1986)	At 15 year follow-up, data included mother interviews with a life-history calendar, information on life factors, Conflict Tactics Scales (a measure of partner perpetrated violence), and reports of major and minor violence. CPS records were examined and only reports of the mother as perpetrator or the study child as subject were coded.	The intervention group had fewer child maltreatment reports involving the mother as perpetrator ($p=0.01$), or involving the study child ($p=0.04$).	GOOD
Barth, 1991[97]	2 hr initial assessment interview served as pretest for both groups. Posttest given at 6 months or when the child was 4 months old included: self report of mother's well being, CAP, community resources use scale, prenatal care, birth outcomes, child temperament, child welfare & neglect, review of medical records, and reports of child abuse & removal from home obtained from county social service records.	No statistically significant differences in numbers of families reporting child abuse or neglect, child welfare, or court-ordered in-home or out-of-home services, or other health outcomes. Control group had greater increase in unsubstantiated reports since the program ($p<0.05$).	FAIR

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Design	N	Population/Setting	Recruitment	Inclusion Criteria	Duration	Intervention
Black, 1994[99]	RCT	43	Drug using pregnant women; majority single, African American, multiparus, non-high school graduates, low SES; 41% HIV; 62% history of incarceration; 16% raised in foster homes; large metropolitan teaching hospital.	Prenatal clinics at a hospital. Intervention took place at the Special Parent/Infant Care and Enrichment (SPICE) clinic.	Admitted using cocaine or heroin during pregnancy.	Birth to 30 months	All children received primary care in a multidisciplinary clinic. Treatment group received biweekly home visits provided by a nurse pre- and post-delivery up to child age18 months.
Brooten, 1986[102]	RCT	control=40 intervention =39	Infants and their caretakers at the University of Pennsylvania Hospital.	Recruited from hospital nursery.	Control group infants weighed ≥ 2200 grams and met routine nursery policy before discharge. The intervention (early discharge) group infants could weigh < 2200 grams and had to meet discharge criteria.	Birth to 18 months	Intervention included nurse consultation each week while the infant was in the hospital, home visits before discharge and at one week, 1, 9, 12, and 18 months. Nurse phone contact and referral resources were available up to 8 weeks post-discharge
Kitzman, 1997[101]	RCT	1) 166 2) 515 3) 230 4) 228	92% African American women; 64% under 18 yrs of age; 85% at or below the federal poverty level; public obstetric clinic in Memphis, TN.	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).	Prenatal through 2 years	Interventions: 1) transportation to clinic, 2) same as group1 plus developmental screening, and referral services at 6, 12, and 24 months, 3) same as groups 1 & 2 plus 3 intensive home visitations, 4) same as groups 1, 2, & 3 plus intensive home visitation

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Assessment	Results	Quality Rating
Black, 1994[99]	At recruitment, each family was given the Child Abuse Potential Inventory (CAP); 3 months, Parenting Stress Index (PSI); 6 and 12 months, Bayley Scales for Infant Development; 18 months, Bayley Scales, CAP, PSI. Regular clinical visits were performed at 1, 2, 4, 6, 8, 10, 12, 15, and 18 months. At 30 months, home observation using the HOME Scale. Self reported drug use and compliance with primary care appts for mother and child were also evaluated.	At prenatal assessment, both groups showed CAP scores significantly above the norm ($p<0.01$). At 18 months, the intervention group had CAP scores within the norm, control group had scores above the norm ($p<0.01$), and there were no significant differences related to parental stress or child abuse potential. Women in the treatment group were more emotionally responsive to their children ($p=0.03$), had a more stimulating home environment ($p=0.053$), reported being drug free ($r=0.53$, $p=0.002$) and were compliant with primary care ($r=0.48$, $p=0.016$).	FAIR
Brooten, 1986[102]	Physical examinations and developmental tests were administered at one week, 1, 9, 12, and 18 months. Outcomes were determined by reports of child abuse and review of foster care records.	No differences in rehospitalizations, number of acute care visits, failure to thrive, reported child abuse, or foster care placement during the 18 month follow-up period.	FAIR
Kitzman, 1997[101]	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.	Nurse visited children had fewer health care encounters related to injuries or ingestions in the first two years, compared to 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 ($p=0.003$).	FAIR

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Design	N	Population/Setting	Recruitment	Inclusion Criteria	Duration	Intervention
Marcenko, 1994[98]	RCT	control=100 intervention = 125	94% African American; 4% Hispanic; 2% white; mean age 23 years; 79% on public welfare benefits; large metropolitan inner-city hospital outpatient clinic in Philadelphia, PA.	Pregnant women were recruited by a social worker, family planning counselor, or financial assistance clerk from an inner-city hospital outpatient obstetrics clinic. Women were paid $10 for the baseline interview and $10 for a follow-up interview.	A history of at least one of the following: substance abuse, homelessness, domestic violence, psychiatric illness, incarceration, HIV infection, lack of social support.	Prenatal to 12 months postpartum (range up to 10 months in age)	The treatment group received home visits by a trained worker and had access to social worker & nurse services.
Siegel, 1980[100]	RCT	control=111 1) 107 2) 50 3) 53	25% white; 75% minority; 33% currently married, ave. 11 years of education; ave. 21 yrs of age; Greensboro, NC.	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 say in the area for one year or more; did not have a family member in the study.	3rd trimester of pregnancy through 12 months	Control group received usual care. Intervention 1: early and extended hospital contact and home visits; 2: early and extended hospital contact only; 3: home visits only.

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Assessment	Results	Quality Rating
Marcenko, 1994[98]	Treatment group interviews at recruitment, 6 weeks postpartum and 6 months postpartum included substance abuse (Addiction Severity Index [ASI]), self-report of CPS involvement, history of sexual or physical abuse, demographics, service use and satisfaction, social support (Norbeck Social Support Questionnaire [NSSQ]), the home environment (Home Observation for Measurement of the Environment [HOME] Inventory), psychological functioning (Brief Symptom Inventory [BSI]), and self-esteem (Rosenberg's self-esteem scale).	At birth, 9% of children in the intervention group and 4% in the control group were placed out of home by CPS (not stat sig).	FAIR
Siegel, 1980[100]	Data was collected by interview during the last trimester of pregnancy, and by interview and observation in the home at 4 months and 12 months post delivery. Hospital and health agency records were also reviewed. Measures: 92 item Attachment Inventory, Peabody Picture Vocabulary Test.	No differences in reports of child abuse and neglect, the number of hospitalizations, or the number of emergency room visits.	FAIR

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Design	N	Population/Setting	Recruitment	Inclusion Criteria	Duration	Intervention
Cerny, 2001[105]	Cohort	142	Pregnant women during the first trimester at risk for child abuse or neglect; mean age 23 yrs; 66.4% enlisted rank; 21% African American; 73% married; many qualified for federal assistance; Tripler Army Medical Center.	Mothers receiving care at a military medical center.	One or more of the following risk factors: unrealistic expectations of children, lack of support, high stress, marital problems, single parenthood, poor parenting imprint, negative attitude toward pregnancy, social isolation, inappropriate coping skills, history of spouse abuse, history of emotional, physical or sexual abuse.	Prenatal through 1 yr	Community health nurse visited the home approximately 2 times per month until 1 yr post-partum. Education provided for healthy pregnancy, bonding, breastfeeding, infant care, nurturing, discipline, infant massage, domestic violence, etc.
Katzev, 1999[88]	Cohort	High risk group = 4,903; Low risk group = 2,018	First-birth pregnant women receiving care in a healthcare or other service provider office; various counties in Oregon.	Providers identify high risk patients, then screen for potential family stress.	First-birth mothers identified by provider (by direct contact or health records) to be at high risk for abuse or neglect using the 15 item Hawaii Risk Indicator Scale. If high risk, then given a Kempe Family Stress Inventory and referred to the intensive program.	Prenatal to 3 years	High risk patients received weekly home visits, child development information, parenting support, referrals, access to parent support groups, and community resources. Low risk patients received usual service (welcome home visit).

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Assessment	Results	Quality Rating
Cerny, 2001[105]	Pre and Post CAP within 3 weeks of program commencement, at 12 months post-partum; also demographic data.	Mothers were placed in either high or low child abuse potential groups based on CAP scores. High and low potential mothers had statistically significant changes in CAP scores pre and post test (P<0.001). Mothers in the high risk group had significantly more reports of past or present psychological problems, relationship problems, or spouse abuse (P<0.05).	FAIR-POOR
Katzev, 1999[88]	Child's development, literacy, healthcare utilization, immunization, family's basic resources, coping, risk processes, child-parent interactions, and child maltreatment.	No significance levels given. Child abuse incidence rate was 12 per 1,000 children in the treatment group, 17 per 1,000 in the control group; 17% decrease in family violence in the treatment group after 18 months of the intervention. Treatment families had 78% positive parent-child interactions at 6 months, 45% at the start of the program.	FAIR-POOR

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Design	N	Population/Setting	Recruitment	Inclusion Criteria	Duration	Intervention
Brayden, 1993[89]	RCT	High risk intervention =160; High risk control=154 ; Low risk=768; 295 randomly selected for follow-up	Pregnant women receiving prenatal care at University Hospital, Philadelphia PA.	Eligibility screening was done at a prenatal care hospital clinic.	High risk was determined by criteria (frequent moves, previous removal of children by CPS, abusive behavior) and high scores on the Life Stress Scale and Nurture Scale.	Prenatal to 2 yrs of age	High risk intervention included comprehensive services; control had usual care. Comprehensive services included care by a multidisciplinary team for prenatal, postnatal, and pediatric care until children were 2 yrs of age.
Dawson, 1989[104]	Quasi-experimental	Control=80 1) 42 2) 50	Median family income $5,500; 74% white, 25% Mexican American, 1% African American; 66% expecting first child, 34% their second; median education 11th grade; 71% lived with the baby's father, 19% with parents, 10% other; Denver, Colorado.	Women were recruited from 3 clinics in a maternity and infant care project of a local health department between 1977 and 1978; 92% of those approached agreed to participate.	Mother expecting her first or second child, 20-26 weeks pregnant, at least 16 yrs of age, English speaking and not planning to move. No other screening was done.	30th week of pregnancy through 14 months	Control group received usual care. Intervention 1 received usual care plus weekly home visits. Intervention 2 received usual care, home visits, plus invitations to parent groups that met twice a month.

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Assessment	Results	Quality Rating
Brayden, 1993[89]	Maternal History Interview (MHI), risk based on criteria and scores on scales. Outcomes determined by public agency document reports of physical abuse, neglect, sexual assault, or mother-child separation through 36 months post-delivery.	Scores on the MHI predicted child abuse, but not neglect or sexual abuse. Child abuse reports for high risk control mothers were 6.6%, 2.3% for low risk controls (RR 3.02, CI 1.02-8.90). No prevention effect was demonstrated for physical abuse. When compared to high risk controls, the high risk intervention group had higher physical abuse and neglect reports, with neglect reaching significance.	POOR
Dawson, 1989[104]	Pregnancy outcomes and medical information were obtained from medical records; family stress index and other household ratings were obtained by the social worker. Clinic records and state records were used to determine actual or potential abuse and/or neglect.	There were more reports of suspected child abuse or neglect in the home visited group (p=0.04); in 3 of the 5 reported cases, it was the home visitors' information that led to the report.	POOR

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Design	N	Population/Setting	Recruitment	Inclusion Criteria	Duration	Intervention
Flynn, 1999[106]	Cohort	137	Pregnant women receiving prenatal care; 71% African American, 27% Hispanic; mean age 16.9; Newark, NJ.	Pregnant mothers referred by local medical clinics or healthcare providers (some self-referred).	Pregnant with first child or 6 weeks postpartum and considered at risk for child maltreatment. Also, participants were aged 18 or younger, Medicaid eligible, city residents, and not currently clients of Division of Youth and Family Services.	Prenatal through 3 years	Based on the Healthy Families America model of intensive home visiting. 4 levels of mentor intervention were given. Level I=intense support with weekly and monthly visits. When the family became 'crisis free for 30 days', a less intense level of home visiting was implemented (Levels II - IV).
Gray, 1979[103]	RCT	High risk intervention =50; high risk non-intervention =50; low-risk control=50	Women pregnant with their first or second child. Denver, Colorado.	From 1971-1973, pregnant women attending the Colorado General Hospital.	Parents considered at high risk for "abnormal parenting practices" by data gathered at labor & delivery, prenatal interview, or video were recruited. Controls were mothers assessed as low risk and delivered at the hospital during the same period.	Prenatal to age 17-35 mo	High risk mothers were randomized to intervention and non-intervention groups, a third group was considered a low-risk control group. Intervention consisted of specialized pediatric care (pediatrician met with the family at delivery and for bimonthly and medical visits, and made periodic personal phone calls) and weekly home visits by nurses.

Table 2. Studies of Child Abuse and Neglect Interventions

Author, Year	Assessment	Results	Quality Rating
Flynn, 1999[106]	A nursing assessment was done on each adolescent prior to the study. The CAP was administered and a home assessment completed following the birth of the baby and 8 to 12 months post-birth. Incidence of child abuse and neglect were confirmed by the local division of Youth and Family Services.	Only 19 of the 137 completed the CAP at times 1 and 2. Preliminary results indicate a decrease in child abuse potential at time 2 ($p<0.009$).	POOR
Gray, 1979[103]	Risk for abuse was determined using prenatal and postpartum data. Outcomes were assessed when infant was 17 to 35 months old. Families were interviewed and records reviewed (observations of mother-child interactions, reports of verified abuse and neglect, hospital and medical records, and the Denver Developmental Screening Test).	Compared to the high risk non-intervention group, the high risk intervention group had more reports to the Central Child Abuse Registry (6 cases for intervention group, 2 for non-intervention group, $p<0.08$), but fewer cases of inpatient treatment for injury (no cases for intervention group, 5 cases for non-intervention group, $p<0.01$). Several other measures were not different between groups.	POOR

Table 3. Summary of Child Abuse and Neglect Intervention Studies

Author, Year	Type of study	Population/age of child when intervention ended	Assessed for risk	Significant decrease in abuse	Other significant effects*	Quality Rating
Olds, 1986, 1994, 1995, 1997[92-95]	RCT	Pregnant women/ 24 mos	X †			GOOD
Follow-up: 2 yrs				X (p=0.07)	X	
3 yrs				0	X	
4 yrs				0	X	
15 yrs				X	X	
Eckenrode, 2000[96]	RCT					
15 yrs				X	X	
Barth, 1991[97]	RCT	Pregnant women/ 6 mos	X†	0	X	FAIR
Black, 1994[99]	RCT	Drug-using pregnant minority women/ 18 mos	X (drug use)	NA	X	FAIR
Brooten, 1986[102]	RCT	Low birth weight infants/ 18 mos	X (low birth wt)	0	X	FAIR
Kitzman, 1997[101]	RCT	Poor minority women/ 24 mos	X†	NA	X	FAIR
Marcenko, 1994[98]	RCT	Pregnant minority women/ 6 mos	X†	0	X	FAIR
Seigel, 1980[100]	RCT	Pregnant women/ 12 mos	No	0	0	FAIR
Cerny, 2001[105]	Cohort	Pregnant military women/ 12 mos	X†	0	X	FAIR-POOR
Katsev, 1999[88]	Cohort	Pregnant women/ 36 mos	X (HRIS/KFSI)	X	X	FAIR-POOR
Brayden, 1993[89]	RCT	Pregnant women/ 24 mos	X†	X	NA	POOR
Dawson, 1989[104]	Quasi-experimental	Poor, pregnant women/ 24 mos	No	Increased reports	NA	POOR
Flynn, 1999[106]	Cohort	Poor, minority pregnant women/ 36 mos	X‡	0	X	POOR
Gray, 1979[103]	RCT	Pregnant women/ 36 mos	X‡	Increased reports	X	POOR

X=significant relationship; 0=studied but not significant; NA=not studied

*Other outcomes include injury, poisoning, hospitalizations, child development level, and others.

†Assessment based on study criteria.

‡Assessment based on clinical judgment.

HRIS=Hawaii Risk Indicator Scale

KFI=Kempe Family Stress Inventory

Table 4. Studies of Intimate Partner Violence Screening Instruments

Author Year	N	Population/Setting	Instruments	Results	Quality Rating/Limitations
Comparison of Screening Instruments					
Coker, 2001[107]	1,152	Ages 18-65 (mean 38.1) 62% African-American 38% White All insured by Medicaid or managed care 2 university-affiliated family practice clinics	1) Women's Experience with Battering Scale (WEB), 10 items 2) Index of Spouse Abuse-Physical Scale (ISA-P), 15 items All subjects screened with both instruments	Higher detection rate with WEB scale (16%) than ISA-P (10%)	FAIR; 1) Questions asked by graduate students (not health care professionals) 2) Uses modified version of reference standard 3) Administered verbally, although designed as written
Brown, 2000[108]	307	Mean age: 46.2 (range 18-86) 97.6% White 44.7% with postsecondary education 58.9% employed 58.7% with annual household income >$30,000 20 family practice offices	1) Woman Abuse Screening Tool (WAST), 8 items 2) Abuse Risk Inventory (ARI), self-report, 25 items	1) WAST and ARI results were correlated (r=0.69, p=0.01) 2) WAST showed good internal consistency (Cronbach's alpha=0.75)	FAIR; An additional question was added to the original 7-item WAST
Sherin, 1998[109]	259	Demographics not given Family practice office, urban/suburban population	1) HITS, written, 4 items 2) Conflict Tactics Scales (CTS), verbal, 19 items	1) HITS internal consistency (Cronbach's alpha=0.80) 2) Results of HITS and CTS were correlated (r=0.85)	GOOD
Feldhaus, 1997[110]	322	Mean age: 36 45% White 19% African-American 30% Hispanic 49% employed 69% income <$15,000 67% HS or > education 2 urban, hospital-based emergency departments	1) Partner Violence Screen (PVS), verbal, 3 items 2) Index of Spouse Abuse (ISA). written, 30 items 3) Conflict Tactics Scales (CTS), verbal, 19 items	PVS had a higher sensitivity & specificity when compared to the ISA (64.5% & 80.3%) or CTS (71.4% & 84.4%)	GOOD: Screening done by research assistant (not health professional)

Table 4. Studies of Intimate Partner Violence Screening Instruments

Author Year	N	Population/Setting	Instruments	Results	Quality Rating/Limitations
Comparison of Screening Instruments					
McFarlane, 1992[26]	691	31% teenagers; 39% African-American, 34% Hispanic, 27% White pregnant women in public prenatal clinics	Abuse Assessment Screen (AAS), 3 items, compared with Index of Spouse Abuse (ISA), Conflict Tactics Scales (CTS), and Danger Assessment Screen (DAS)	Women identified as abused on the AAS also scored significantly higher on the ISA, CTS, and DAS	GOOD
Ernst, 2002[111]	488	Median age 36, 47% white, 26% African-American, 11% Hispanic Large metropolitan emergency center	Abuse Assessment Screen (AAS), Ongoing Abuse Screen (OAS), single question "Are you presently a victim of IPV?"	The OAS had a sensitivity of 30%, specificity of 100%, and a positive predictive value of 100%	GOOD
Comparison of Screening Instrument to Interview					
Morrison, 2000[112]	302	Mean age and range not specified 1000 charts reviewed Emergency Department, tertiary hospital	1) Emergency Dept Domestic Violence Screening Questions, 5 items 2) Standard interview, chart review	1) Retrospective review of 1000 charts identified 4 patients (0.4%) as past or present victims of domestic violence 2) Higher detection rate with questionnaire (3.6% acute, 6.6% probable, 4% past abuse)	POOR: Inappropriate reference standard (interview not defined)
Canterino, 1999[113]	224	Mean age: 24.4 53.8% African-American 30.1% White 11.4% Hispanic 36% employed Prenatal clinic, community-based tertiary care center	1) Domestic Abuse Assessment Questionnaire, self-report, 5 items 2) Directed interview	Self-report questionnaire yielded higher detection rate (85% vs. 59%, p=0.03)	POOR: Inappropriate reference standard (interview not defined)
Norton, 1995[114]	143	Median age: 23 50% White 63% single 42% uninsured Prenatal visit, interviewed by social services	1) Abuse Assessment Screen (AAS), 5 items 2) Standard interview, chart review	Higher detection of violence using AAS (41%) compared with interview (14%)	POOR: Inappropriate reference standard (interview not defined), narrow spectrum (pregnant women)

Table 4. Studies of Intimate Partner Violence Screening Instruments

Author Year	N	Population/Setting	Instruments	Results	Quality Rating/Limitations
Internal Consistency of Screening Instrument					
Pan, 1997[115]	90	Mean age: 37.8 13.7 years average education $32,000 mean family income 82% White 6% African-American 7% Hispanic 3% Asian Suburban family practice clinic, tertian... ni, amit...	Partner Abuse Interview, 11 items, (modified CTS)	Internally consistent (Cronbach's alpha=0.82)	FAIR: 1) Small sample size 2) Inappropriate reference standard (not compared to another method)
Smith, 1995[116]	389	85% White 61% HS or >education 68% employed Various primary care clinics and community groups	WEB Scale, 10 items	High internal consistency (Cronbach's alpha for full sample=0.99; battered=0.93; non-	FAIR: Inappropriate reference standard (not compared to another method)
Comparison of Methods of Administration of Screening Instrument					
Glass, 2001[76]	4,641	Women aged 18 and older who came to emergency department at 11 community hospitals	Abuse Assessment Screen (AAS) as part of intake survey; patients chose whether to self administer or have it read by a nurse interviewer	Prevalence of lifetime and past year abuse was higher with self-administered questions	FAIR: Patients self-selected method
Furbee, 1998[117]	175	Mean age 34 Emergency deparment, rural, university-affiliated	1) Face-to-face interview 2) Tape-recorded questionnaire with written answer sheet 83 participants listened to tape 92 interviewed by physician	Comparable results (16% prevalence of abuse detected with face-to-face interview compared with 15% detected with taped interview)	FAIR: Narrow spectrum of patients
McFarlane, 1991[118]	777	59% in age range 20-29 47% Black 34% White 17% Hispanic One Planned Parenthood clinic	1) Self-Report, 4 items 2) Interview, 4 items 477 given self-report 300 given interview	Higher prevalence of abuse was detected by nurse interview (29.3%) than by self-report (7.3%)	FAIR: Narrow spectrum of patients

Table 5. Studies of Intimate Partner Violence Interventions

Author, Year	Design	N	Population/ Setting	Duration	Intervention	Assessment	Results	Quality Rating
McFarlane, 2000[119]	Randomized trial comparing 3 interventions	329	Pregnant Hispanic women at prenatal clinics in SW US	Monitored at 2-,6-,12-,& 18-months post-delivery	1) "Brief" (wallet-sized card with resources), 2) "Counseling" (unlimited access to counselor in clinic), 3) "Outreach" (counseling plus 'mentor mother' in community)	All women were screened using the Abuse Assessment Screen (AAS); those with positive responses were randomized to intervention groups and outcomes were determined by the Severity of Violence Against Women Scale (SVAWS) at each follow-up visit.	Abuse decreased significantly in all groups; there were no statistically significant differences between the 3 groups at 6, 12, & 18 months; at 2 months scores were significantly lower for the outreach group compared to the counseling group but not compared to brief group.	FAIR: Narrow patient population, outcomes by self-report
Parker, 1999[120]	Non-randomized trial comparing 2 interventions	199	Pregnant women at prenatal clinics in Texas and Virginia; 35% Black, 33% Hispanic, 32% White	Monitored at 6 & 12 months post-delivery	1) 3 counseling sessions, 2) wallet-sized card with resources (intervention vs. minimal intervention)	Women were screened with AAS; those with positive responses were eligible for interventions; outcomes were determined by SVAWS and Index of Spouse Abuse (ISA) at each follow-up visit.	Less violence occurred in the intervention group at 6 and 12 months, (SVAWS [p=0.052], ISA [p=0.007]).	FAIR: Non-random assignment, outcomes by self-report, poor attendance at support groups

Table 6. Studies of Elder Abuse and Neglect Screening Instruments

Author, Year	N	Population/Setting	Instruments	Results	Quality Rating/Limitations
Caregiver Screen					
Reis, 1995[121]	139	3 groups of caregivers: 44 abusive and 45 non-abusive from social service agency, 50 non-abusive from community.	Caregiver Abuse Screen (CASE), 8 items (yes/no)	1) Scores distinguished abusers from non-abusers (alpha=0.71); other characteristics were similar (SES, age, etc.); 2) CASE scores correlated with Indicator of Abuse (IOA) (r=0.41, p<0.001). 3) CASE scores correlated with Sengstock-Hwalek Brief Abuse Screen (r=0.26,	FAIR: Small sample size, administered as part of a social services project, not in clinical setting
Elder Screen					
Neale, 1991[122]	259	3 groups of elders: 170 victims of abuse, 42 referred to Adult Protective Services (APS) and found not to be abused, 47 from a family practice clinic.	Hwalek-Sengstock Elder Abuse Screening Test (HSEAST), 15 items	Scores distinguished abused from not abused (p<0.001; Cronbach's alpha=0.29); correctly classified 67-74% of cases; 6 items were strongly related to abuse	FAIR: Small sample size
Moody, 2000[123]	100	Convenience sample of white and minority elderly (>60 years) living in public housing in Florida.	1) Hwalek-Sengstock Elder Abuse Screening Test (HSEAST), 15 items; 2) Indicators of Abuse (IOA) Screen, 29 items	Scores for abused and nonabused were significantly different (p<0.049); correctly classified 71% of cases. Discriminates abuse cases 84.4% of the time, and nonabuse cases 99.2% of the time.	FAIR: Small sample size, Intended for social service practioners

Table 7. Summary of Evidence

Key Questions	Evidence Codes*	Quality of Evidence** Internal Validity	Quality of Evidence** External Validity
Arrow 1: Does screening reduce harm and premature death and disability?	None available		
Arrow 2: How well does screening identify current harm or risk of harm?			
Children	II-1	Poor-good: Instruments were developed mostly for pregnant women; few instruments evaluated; no studies involving other methods of screening were identified.	None screen children directly; all but one focus on pregnant women.
Women	II-1	Poor-good: Many instruments tested in primary care settings and indicate fair-good correlation with longer instruments; no studies follow women longitudinally.	Several brief instruments tested using a variety of settings and populations.
Elderly adults	II-1	Fair: 1 designed for caregivers, 2 for elderly adults; results correlate with longer instruments.	Few instruments studied, none in healthcare settings.
Arrow 3: What are the adverse effects of screening?	None available		
Arrow 4: How well do interventions reduce harm?			
Children	I, II-1, II-2	Poor-good: A trial of home nurse visits during and after pregnancy indicated reduced violence measures up to 15 years after intervention; other studies of modified versions of this intervention report improved outcomes related to violence.	Interventions are confined to pre and postnatal periods and focus on newborns and infants; populations are defined as high risk by various eligibility criteria.
Women	I, II-1	Fair: 2 small trials suggest benefit using self-reported outcomes.	Studied in small populations of pregnant women only.
Elderly adults	None available		
Arrow 5: What are the adverse effects of intervention?	None available		

Table 7. Summary of Evidence (continued)

*Study Design Categories
I: Randomized, controlled trials
II-1: Controlled trials without randomization
II-2: Cohort or case-control analytic studies
II-3: Multiple time series, dramatic uncontrolled experiments
III: Opinions of respected authorities, descriptive epidemiology

**Described in Appendix 2 and Harris, 2001.