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**Prevention and Treatment of Violence Against Women
Systematic Review and Recommendations**

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TECHNICAL REPORT

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**Prevention and Treatment of Violence Against Women:
Systematic Review and Recommendations**

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ABSTRACT

Objectives: To summarize what is known about the distribution and determinants of violence against women, and evaluate the evidence for effectiveness of any intervention aimed at preventing violence against women.

Options: Screening all women, including pregnant women, in the primary care setting for risk of, or to detect, domestic violence; interventions for women who are abused; treatment programs for men who abuse their partners. Interventions in other settings are reviewed for completeness, but recommendations on these were outside the scope of the systematic review.

Outcomes: Primary outcomes: incidence of physical, sexual or emotional abuse by men against their female partners. Secondary outcomes: women's use of safety behaviors, social support, community resources, etc. following intervention. Other outcomes included in individual studies (including assessment of psychological status, substance abuse status, etc., are reported, but were not considered primary outcomes.

Evidence: MEDLINE, PsycINFO, CINAHL, HealthStar and Sociological Abstracts were searched from the respective database start dates to March 2001 using appropriate database-specific keywords such as "domestic violence", "spouse abuse", "sexual abuse", "partner abuse", "shelters" and "battered women", among others. The reference lists of key papers were hand searched. Both primary authors reviewed all titles and abstracts according to established inclusion/exclusion criteria to arrive at a final pool of papers for review. Key papers from after the search end date and identified by external reviewers were included.

Benefits, Harms, and Costs: There is a high prevalence and significant impairment associated with violence against women (both pregnant and non-pregnant). However, there is a lack of evidence regarding the effectiveness of screening for preventing abuse. In terms of interventions, the benefits of several strategies in treating both men and women are unclear, primarily due to a lack of suitably designed research that measures appropriate outcomes. In most cases, the harms of any studied intervention are not assessed, nor are the costs, particularly in the Canadian context.

Values: The strength of evidence was evaluated using the evidence-based methods of the Canadian Task Force on Preventive Health Care.

Recommendations: Based on evidence to date, there is insufficient evidence to recommend for or against screening for violence against non-pregnant or pregnant women (**I Recommendation**). This is distinct from the need for clinicians to include questions about exposure to domestic violence as part of their diagnostic assessment of women. This information is important in caring for the patient, and may influence assessment and treatment of other health problems. There is insufficient evidence to recommend for or against any specific interventions for women exposed to violence (**I Recommendations**), other than referral to post-shelter advocacy counseling (**B recommendation**), although suitable programs may not be available in Canada. The effectiveness of shelters in preventing violence against women is unknown (**I Recommendation**). Primary care practitioners may also be asked, either by their male patients, or the partners of their male patients, about the effectiveness of programs for male batterers. The CTF concludes that there is conflicting evidence regarding the effectiveness of batterer interventions (with or without partner participation) in reducing rates of further domestic violence (**C Recommendation**).

Validation: The members of the Canadian Task Force on Preventive Health Care reviewed these findings through an iterative process. The Task Force sent the final review and recommendations to selected external expert reviewers and their feedback was incorporated.

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INTRODUCTION

Since the 1970s, spousal violence has increasingly been recognized as associated with significant morbidity and mortality, particularly among women (Chalk & King, 1998). While several surveys suggest that similar proportions of men and women report spousal violence (Statistics Canada, 2000; Straus & Gelles, 1986; Straus, 1993), women exposed to spousal violence appear to experience more physical and emotional impairment compared to men (Stets & Straus, 1989). It is not surprising therefore, that the great majority of interventions aimed at prevention of and treatment for spousal violence focus on violence by men against women. Given the recent emphasis on development of screening approaches and prevention programs for violence against women, The Canadian Task Force on Preventive Health Care has selected this topic for a systematic review. Although violence against men by women is an important issue, there are too few original research articles with this focus to warrant a systematic review of this topic presently. Similarly, there is little literature available about interventions aimed at reducing violence between same-sex partners. For these reasons, this review focuses exclusively on women exposed to violence by men.

This article summarizes what is known about the distribution and determinants of violence against women, and then outlines the methods used to evaluate the evidence for effectiveness of any intervention aimed at preventing violence against women. It includes approaches that focus on detecting violence against women that has already occurred with the purpose of preventing further violence, and programs that attempt to reduce violence by the male partner. The review does not discuss treatment programs for women directed at reducing the impairment associated with exposure to violence (for example, treatment of depression or posttraumatic stress disorder).

Note on terminology:

The terms “domestic violence”, “intimate partner violence”, “wife abuse”, “spousal violence”, “spousal abuse” etc. are used interchangeably in the research literature. The approach taken in this review was to use the broad term “violence against women” in general descriptions and to adopt the language used by authors when describing their individual studies.

Burden of Suffering

Domestic Violence in the General Population

Physical violence

The 1999 General Social Survey (GSS) was Statistics Canada's first attempt to more systematically and comprehensively measure spousal violence (Statistics Canada, 2000). In addition to measuring rates of physical and sexual violence between spouses (defined according to Criminal Code definitions of these types of offences), the Survey also separately documented incidence of emotional abuse - this was not included in the overall rates of spousal violence, but reported separately (see below). The rates of self-reported spousal violence were measured for both men and women, and while these are generally equal between genders (5-year national rates were 7% for female-to-male violence and 8% for male-to-female violence), it is the case, as also reported elsewhere (Archer, 2000), that the consequences of abuse for women are more severe in nature and outcome than they are for men. Women are more than men likely to suffer episodes of beating (25% vs. 10%), choking (20% vs. 4%) and sexual assault (20% vs. 3%). The results of which are that women are three times more likely to suffer injury (40% vs. 13%) and five times more likely to receive medical care (15% vs. 3%) as a result of spousal violence than are men.

Trends of spousal violence are difficult to report, and depend on what data sources (i.e. police reports vs. victimization surveys) are used (Johnson, 2000). In general, in comparing data from the 1993 Violence Against Women Survey to similar data from the 1999 GSS, there is a small but significant decrease in incidence of wife assault (from 12% to 8% in 5-year rates) and severity of the violence, with a 7% (from 50% to 43%) drop in the proportion of women reporting more serious forms of violence (Johnson, 2000).

Emotional abuse

The 1999 GSS (Statistics Canada, 2000) also measured emotional abuse and controlling behaviour, including financial abuse/control, as separate from physical violence. Nineteen percent of women and 18% of men reported experiencing this type of abuse, with women more likely to experience all forms of emotional abuse except for jealousy and a demand to account for whereabouts at all times - these were experienced equally by men and women. Interestingly, it was found that emotional forms of abuse are highly correlated with physical violence such that

5-year rates of violence were 10 times greater for those (men or women) in emotionally abusive situations than for those who did not report emotional abuse.

The most common non-physical consequence of spousal violence reported by women and men was being upset, confused and frustrated (women 44% and men 29%), followed by anger (34%, 26%) and, for women, fear (34%, versus 3% for men). In general, women suffer more serious negative emotional consequences of abuse than do men, and are far less likely to report that abuse had “not much” effect (3% for women, 22% for men) (Statistics Canada, 2000).

Domestic violence during pregnancy

No population-based Canadian data exist that provide nation-wide estimates of the prevalence of domestic violence during pregnancy (MacMillan, 1999). A study conducted with a sample of 543 pregnant women in Saskatoon, Saskatchewan (Muhajarine & D’Arcy, 1999) found an unadjusted prevalence of 5.7% for abuse during pregnancy (31/543 respondents) and 8.5% (46/543) for reported abuse within the year preceding the second trimester interview. Adjusted for disproportionate sampling, these correspond to estimated population rates of 4.5% and 6.2%, respectively (Muhajarine & D’Arcy, 1999). These rates are slightly lower than those reported in a previous Canadian study (Stewart & Cecutti, 1993). That study was conducted in and around Toronto, Ontario, and surveyed women from several settings, including prenatal clinics, a major hospital, and private specialist and generalist practices in the city and several small towns. The study sampled 548 women and found an unadjusted prevalence of 6.6% (36/548) for abuse during pregnancy and 10.9% (60/548) for abuse preceding the current pregnancy (Stewart & Cecutti, 1993).

The Canadian data cited above fall within the range reported for American studies that have examined the prevalence of violence against pregnant women (Gazmararian et al., 1996). In a synthesis of such studies, Gazmararian and colleagues (1996) found rates of abuse ranging from 0.9% to 20.1%. The variability is indicative of some of the problems inherent in collecting and standardizing this kind of data, including when and how the questions are asked, and in what populations (Ballard et al., 1998).

Within the available studies, the majority of prevalence rates ranged from 3.9% to 8.3%. In a more recent state-wide survey of North Carolina women (N = 2648), Martin et al. (2001)

found a prevalence of 6.1% for abuse during pregnancy, compared to 6.9% before pregnancy. In similar state-wide surveys using data from the Pregnancy Risk Assessment Monitoring System (PRAMS), the range of reported violence just preceding and during pregnancy (the 12 months prior to delivery) was 3.8% to 6.9% (Centers for Disease Control and Prevention, 1994). In the South Carolina PRAMS sample (Cokkinides & Coker, 1998), 9.4% of over 6700 women reported some form of violence during their pregnancy. Of these, 5.1% reported being hurt by their husband or partner.

Several studies have found a relationship between abuse before, during and after pregnancy. In a follow-up to the 1993 Canadian study cited above, Stewart (1994) interviewed 30 of the 36 women who had reported being abused during pregnancy in the initial study. This study compared rates of abuse in five three-month periods: that just preceding pregnancy, each trimester of pregnancy, and the first three months post-partum. Results indicated a significant increase in abuse incidence for the post-partum period (2.1 incidents of abuse per woman abused), compared to both the pre-conception (1.5 incidents) and pregnancy trimesters (1.4, 1.3 and 1.1 incidents) (Stewart, 1994). In terms of overall prevalence in these periods, Martin et al. (2001) found rates of 6.9% before pregnancy, 6.1% during pregnancy, and 3.2% in the first 3 to 4 months post-partum. Both of these studies (Stewart, 1994; Martin et al., 2001) found that abuse during an earlier period strongly predicted abuse during a later period.

Risk Indicators

Several studies have examined the factors associated with violence against women. These are generally classified into two categories; those characteristics of women that increase the risk of exposure to domestic violence and factors in males that are associated with higher risk of committing violence against women; some also identify couple factors, and further studies have examined correlates of abuse in pregnant women. As emphasized by Eisenstat and Bancroft (1999) however, “neither victims nor batterers fit a distinct personality or socioeconomic profile” (page 886). The risk indicators/correlates by female (non-pregnant and pregnant), male and couple factors are summarized in Table 1. No studies have specifically examined the effects of risk indicator modification on prevention of violence outcomes. In general, while demographic factors associated with men, women and couples (including SES, employment status, education, etc.) are present, other indicators also appear most strongly

correlated with abuse, including alcohol/drug abuse for men, marital conflict and status within the couple, and a history of witnessing abuse or parental conflict while growing up (for both men and women). Besides a history of partner violence, several other factors are correlated with abuse during pregnancy. These include having an unwanted pregnancy, increased parity and number of stressful life events, among others. Stewart and Cecutti categorized the correlates along three dimensions: “social instability”, “unhealthy lifestyle”, and “physical health problems” (Stewart & Cecutti, 1993).

Impairment

As summarized by Eisenstat and Bancroft (1999), women exposed to partner violence are at increased risk of injury and death, as well as a range of physical, emotional and social problems. Impairment in mental health is often considered a consequence of exposure to domestic violence in women, yet most of the studies that purport to address this question are cross-sectional in nature, and therefore can only provide information about emotional problems associated with exposure. While most of these studies are based on clinical samples that may be subject to selection bias, Danielson and colleagues (1998) examined the relationship between exposure to domestic violence and risk of DSM-III-R mental disorders in a community sample (n = 941 adults aged 21 years). Women exposed to “any” partner violence reported significantly increased rates of mood (odds ratio (OR) 2.0) and eating disorders (OR 5.5). Those exposed to severe partner violence had increased rates of mood (OR 2.74), eating (OR 4.6), substance dependence (OR 2.8) and antisocial personality disorders (OR 15.6), as well as nonaffective psychosis (OR 3.7).

In 1999, Golding examined the relationship between exposure to intimate partner violence in women and mental health impairment in a meta-analysis that included clinical and general population samples. She found that there were strong associations for a range of disorders including depression, suicidality, post-traumatic stress disorder (PTSD), and alcohol and drug abuse/dependence. The majority of the studies included in the meta-analysis were cross-sectional.

Sutherland and colleagues (1998), as part of an intervention trial, examined the health of women (N = 141) immediately after leaving a domestic violence shelter, and at follow-up 8.5

and 14.5 months later. As expected, higher rates of abuse were associated with higher levels of injuries, as well as other physical and emotional health problems, such as anxiety and depression. The relationship between exposure to abuse and physical health symptoms appeared to be mediated through anxiety and depression, but not through injuries. Previous exposure to abuse appeared to have an ongoing effect on physical and emotional health, even if recent abuse declined.

A one-year follow-up study of women presenting to the emergency department of an Australian public hospital (n = 358) looked at the mental health of women who reported domestic violence compared to those without such a history (Roberts et al., 1998). Women with a history of domestic violence had significantly higher rates of depression, anxiety, somatization, substance abuse/dependence and dissociation, compared to those who reported no domestic violence.

Abuse during pregnancy is associated with impairment in both the mother and child. For the mother, the outcomes described above are all relevant, as well as the additional psychological and physical implications of suffering abuse while pregnant. For the child, abuse can cause direct harm, such as pre-term birth or injury due to a blow to the mother's abdomen, or indirect harm caused by psychological distress and/or a woman's reluctance or inability to obtain prenatal care (Newberger et al., 1992; Cokkinides et al., 1999). A recent meta-analysis and systematic review found that women abused during pregnancy are significantly more likely to give birth to low birth weight infants (Murphy et al., 2001).

Options

There are two main intervention options to detect and prevent the recurrence of violence against women. First, primary care clinicians can screen women to determine whether they are being abused. A number of screening tools exist, and these are reviewed. For pregnant women, domestic violence carries additional burden of illness, both for the mother and child. Screening tools, also reviewed below, have been developed and tested for this sub-set of women. One study has attempted to screen men to determine whether they are currently, or have in the past, perpetrated violence against women.

Women identified as at risk of, or suffering from, partner violence may require some form of treatment intervention. In the primary care setting, this generally means a referral to either a safe place, such as a women's shelter, to counseling, or to other community-based resources.

Another set of intervention options is referral of men to batterer treatment programs. Compared to interventions for women, a much larger amount of empirical data exists evaluating the effectiveness of different treatments for men. The link between detecting partner violence in men and then treating them is not clear, especially in terms of the role of the primary care clinician. However, given the potential for the reduction in partner violence incidence through treatment of perpetrators, it is important to understand the effectiveness of these treatment options.

There are two types of interventions for which data exist that target prevention of domestic violence at a broader level. First, a few studies have examined the effectiveness of information/education interventions targeted at young people as primary prevention strategies for later domestic violence. Also, some have proposed that societal-level interventions, such as policing and legislative policies, can have an impact on incidence of violence against women. These latter are considered outside the scope of primary care, but a brief section outlining the key issues surrounding these types of policies is provided.

Outcomes

For screening tools, such test performance characteristics as sensitivity, specificity, and positive and negative predictive values are examined.

For treatment interventions, especially those for abused women, the issue of the most appropriate outcome measures is a difficult one. The Canadian Task Force methodology places the greatest weight on "health outcomes", generally stated as changes in disease morbidity or mortality (and sometimes co-morbidities) resulting from the interventions. In the case of physical, sexual and emotional violence, the obvious primary health outcomes are those related to physical and psychological morbidity of abuse; however, these data are often not available, since most studies do not provide the results of physical or psychological examinations. Thus the proxy outcome of incidence of abuse, generally self-reported, is often used. The most

commonly used source for incidence data is the abused women themselves, however there is evidence that, for various reasons, women under-report abuse (Statistics Canada, 2000). Studies relying on batterer reports are more suspect.

There also exists debate in the clinical and research arenas regarding whether incidence of re-abuse is the appropriate measure for evaluating the success of certain interventions. For example, many argue that using incidence of violence as an outcome measure for shelter effectiveness is inappropriate for several reasons, not the least of which is that the woman herself has no control over whether she is abused again and using this as an effectiveness outcome adds yet another burden to these women. For example, if they must return to an abusive relationship for economic reasons and are re-abused, the shelter intervention is deemed ineffective. Some authors (e.g. Grasley et al. 2000; Sullivan , 1998) claim that the significant outcomes should be determined by the women themselves. Other types of outcomes suggested in the literature (e.g., Plitchta et al., 1996) include the impact of clinically-based interventions (e.g., screening, counseling) on the patient-physician interaction. However, these were not considered primary outcomes for the present analysis, due in large part to a lack of analytic studies.

Thus some studies, especially those describing interventions for women, do not provide abuse outcomes per se, and the main measures are such outcomes as the amount of social support the women have access to, their use of safety behaviors or safety planning, or their use of community resources. While the link between these types of outcomes and subsequent abuse has not been empirically established, studies that meet other inclusion criteria and report only these types of outcomes are included in the analysis, with a caveat that they can inform effectiveness of interventions only viz a viz these outcomes.

For the batterer interventions, studies often examine impacts of treatment on men other than rates of re-abuse. These include psychometric test scores, coping, cognitive and communication skills, etc. These types of outcomes are considered secondary.

Other outcomes included in individual studies (including assessment of psychological status, substance abuse status, etc., are reported in the relevant tables, but were not considered primary outcomes.) Potential harms of screening and treatment interventions are also reviewed.

METHODS

Inclusion/Exclusion Criteria

A priori inclusion/exclusion criteria were based on the analytic framework (Figure 1). “Violence against women” was defined to mean physical and psychological abuse of women by their male partners, including sexual abuse and abuse during pregnancy. For the critical appraisal, the focus was on the effectiveness of interventions. As mentioned above, the key outcomes of interest were physical and mental health outcomes, and as such it was decided *a priori* to critically appraise only studies that reported these outcomes (and in some cases the intermediate outcomes outlined above). As the review progressed, it was decided to revise the inclusion criteria to include batterer treatment programs (see above).

Other aspects of the analytic framework that were reviewed descriptively were the burden of suffering/epidemiology of domestic violence, the effectiveness of screening, and studies of primary prevention or interventions at the level of policy (i.e. beyond the scope of primary care practice).

Evidence

Table 2 provides a summary of the databases searched and the keywords used in the literature search. An initial broad search was conducted in August 2000 and updated in March 2001. Both reviewers also performed hand searching of reference lists.

A total of 2185 citations were retrieved during the first search. Hand searching and the focussed update in March 2001 added 22 citations to the pool. One reviewer (NW) reviewed all titles and abstracts and created “keep” and “reject” databases in Reference Manager 9.0. The second reviewer (HM) examined both databases and made necessary adjustments according to the inclusion/exclusion criteria. A total of 237 papers appeared from titles/abstracts to match inclusion criteria; these were retrieved in full for further review. The final pool included 97 papers, 22 of which met the criteria for critical appraisal, and the rest of which were considered for descriptive review for other aspects of the analytic framework and sections of the manuscript. An additional 11 papers, suggested by expert reviewers and/or published after the search end date, were added, one of which met the criteria for critical appraisal.

Critical Appraisal and Consensus Development

This evidence was systematically reviewed using the methodology of the Canadian Task Force on Preventive Health Care. The Task Force of expert clinician/methodologists from a variety of medical specialties used a standardized evidence-based method for evaluating the effectiveness of preventive interventions. The lead authors prepared a manuscript providing critical appraisal of the evidence. This included identification and critical appraisal of key studies, and ratings of the quality of this evidence using the Task Force's established methodological hierarchy (Appendix 1).

This manuscript was pre-circulated to the members in May 2001, and evidence for this topic was presented by the lead authors and deliberated upon at the June 2001 Task Force meeting. At the meeting, the expert panellists addressed critical issues, clarified ambiguous concepts and analysed the synthesis of the evidence. At the end of this process, the specific clinical recommendations proposed by the lead authors were discussed, as were issues related to clarification of the recommendations for clinical application, and any gaps in evidence. The results of this process are reflected in the description of the decision criteria presented with the specific recommendations. The group and lead authors arrived at the final decisions on recommendations unanimously.

Subsequent to the meeting, the lead authors revised the manuscript accordingly. After final revision, the manuscript was sent by the Task Force to four independent experts in the field (identified by Task Force members at the meeting). Feedback from these experts was incorporated into a subsequent draft of the manuscript.

Procedures to achieve adequate documentation, consistency, comprehensiveness, objectivity and adherence to the Task Force methodology were maintained at all stages during review development, the consensus process, and beyond. These were managed by the Task Force Office, under supervision of the Chair, and ensured uniformity and impartiality throughout the review process. The basic methodology, described in Woolf et al., 1990, was updated in 2001 (see notes in Appendix 1).

RESULTS

Screening for Violence Against Women

Screening tools to detect violence against women have been developed for different settings, including emergency rooms, community health settings, and primary care (both pediatric and family practices), among others. With a few exceptions, most screening tools ask women to report on the frequency, severity and type of abuse they have experienced in current and past relationships, or during a specified time period. More refined tools have also been developed to detect abuse during pregnancy. The main tools used are reviewed below, including the Conflict Tactics Scales (CTS), a self-report instrument upon which many other screening tools are based.

An important point to keep in mind when considering the use of these types of screening instruments is that many, including the CTS, ask women about their past abuse. While past abuse, especially in the current relationship, is likely related to ongoing or future abuse, the tools are not specifically designed to determine this. One exception is the study by Koziol-McLain and colleagues (2001), reviewed below.

The CTS deserves special mention because it is often considered “the gold standard” as a measure of partner abuse (Hegarty et al., 1999). This instrument assesses self-reports of psychological and physical aggression by partners in a relationship toward each other, as well as use of reasoning in conflict situations (Straus et al., 1996). The CTS has been revised and expanded (CTS2) to include sexual coercion and physical injury from assaults by a partner; the original CTS included 19 items while the CTS2 consists of 39 items. The CTS2 has internal consistency reliabilities of the scales ranging from .79 to .95 and reasonable construct and discriminant validity (Straus et al., 1996). A recent meta-analysis of the reliability of the CTS indicated that both men and women underreport their own aggression (Archer, 1999). Despite its wide use however, the validity of the CTS has not been examined in comparison to either a clinical interview, or record data.

Some critics of the CTS (and CTS2) suggest that these instruments do not include sufficient items about emotional abuse (for example, harassment) (Hegarty et al., 1999). The Psychological Maltreatment of Women Inventory (PMWI) is a 58-item scale that focuses exclusively on emotional abuse (Tolman, 1999). Other instruments have attempted to measure a

broad range of categories of violence against women. These include the Index of Spouse Abuse (ISA) (Hudson & McIntosh, 1981), the Measure of Wife Abuse (MWA) (Rosenberg & Fantuzzo, 1993), the Abuse Risk Inventory for Women (ARI) (Yegidis, 1989), and its subscale, the 25-item Wife Abuse Inventory (Poteat et al., 1990), the Abusive Behavior Inventory (ABI) (Shepard & Campbell, 1992), the Partner Abuse Scale (Physical and Non-physical) (Attala et al., 1994), and the Composite Abuse Scale (CAS) (Hegarty et al., 1999). None of these measures has undergone sufficient psychometric testing to suggest that it is superior to the CTS2. More importantly, no study to date including those evaluating the CTS2 has demonstrated that identification of women being exposed to domestic violence can lead to an effective intervention that prevents or reduces subsequent violence. These instruments have been used predominantly in research settings to determine the presence or absence of exposure to domestic violence.

General population

Using population-based data from a state-wide survey (the Colorado Behavioral Risk Factor Surveillance System - BRFSS), Koziol-McLain et al. (2001) prospectively examined the predictive validity of a positive screen with a 3-question brief screening tool. They obtained a sample of 409 (59% of the 679 eligible) women who answered the three questions during the course of the longer BRFSS telephone interview and were subsequently interviewed during a 3-5 month follow-up period. Approximately 8% ($n = 32$) of these women had a positive screen during the initial BRFSS. At the follow-up interview, the following percentage of these screen-positive women reported various types of abuse: verbal aggression = 56% (RR = 3.6), physical violence = 28% (RR = 11.7), severe physical violence = 13% (RR = 46.6) and sexual coercion = 22% (RR = 2.5). The reported percentages for screen-negative women ($n = 373$) were 16%, 2%, 0.3% and 9% for the four types, respectively. The sensitivity of the screening questions was good for severe physical violence (~80%) but marginal to poor for the other outcomes, and 20% overall. Specificity was > 90% for all outcomes, with 9 (of 373) false negatives overall. Positive predictive value was 60% overall (negative predictive value was 79%). Another important finding of this study was that being separated from the abusive partner was a key predictor of abuse during the follow-up period, especially if this was coupled with a positive screen.

Feldhaus et al. (1997) developed and evaluated three brief screening questions for use in detecting domestic violence against women in the emergency room setting. The three question

Partner Violence Screen (PVS) designed to determine whether a woman has been physically abused (one question: “*Have you been hit, kicked, punched, or otherwise hurt by someone in the past year? If so, by whom?*”) and her perceptions of her own safety (two questions: “*Do you feel safe in your current relationship?*” and “*Is there a partner from a previous relationship who is making you feel unsafe now?*”). These questions were tested against established screening tools (CTS and ISA) in a randomly obtained sample of women (N = 322) presenting to the emergency room in a large urban hospital. With approximately 30% of the sample reporting being unsafe or a recent victim of physical violence, the prevalence of partner violence in this sample was high compared to the prevalence in the general population, but similar to that in other studies using emergency room samples (American Medical Association, 1992). This might indicate that women presenting at the emergency room are at greater risk of domestic violence than the general population. Indeed 13.7% (N = 38) of the visits during which the interview occurred were attributed by the respondent to an episode of partner violence (either from direct physical injury or acute stress caused by abuse).

When compared to the “gold standard” instruments (the CTS and ISA), the 3-question PVS, which took an average of 20 seconds to administer, performed reasonably well. Sensitivities for detection of physical violence of the PVS compared to the ISA were 53.2% and 68.2% compared to the CTS, with specificities of 89.1% and 94.6% respectively and positive predictive values of 61.1% and 82.7% (for safety, the performance of the PVS against the other two instruments was slightly poorer). The authors concluded that the single physical abuse question performs almost as well as the overall PVS in identifying positive cases of partner violence (Feldhaus et al., 1997).

The majority of screening studies conducted in primary care settings have been small and have used adaptations of existing tools tailored to the practice (e.g. Pan et al., 1997; Siegel et al., 1999). Two studies are noteworthy.

Brown and colleagues developed (1996) and tested (2000) the Woman Abuse Screening Tool (WAST). Designed specifically for primary care settings, the 8-item WAST and its 2-item short form have been shown to be valid and reliable in identifying partner abuse. In a recent study, these authors tested the performance and acceptability (to both physicians and patients) of the WAST, comparing it to the Abuse Risk Inventory (ARI) (Yegidis, 1989) as the “gold standard”. The study had 20 randomly selected family physicians in Southwestern Ontario use

the tool during 15-20 consecutive patient visits with women meeting inclusion criteria (>18 year-old, English-speaking women currently involved in an intimate relationship who were unaccompanied on the visit, which was for routine physical or prenatal care or an acute illness). Results for 306 women indicated a prevalence in this sample of 8.5% as identified by the WAST-Short, and good validity and reliability ($r = 0.69$, $p = .01$) when compared to the ARI. In addition, both physicians and patients were comfortable with the tool, though more experienced, or female physicians reported the greatest comfort, and women reporting abuse were less comfortable with the process generally. Of note is that the WAST-Short, consisting of two questions measuring marital tension and difficulty in resolving arguments, rather than direct questions about physical, sexual or verbal abuse, is effective in positively identifying women experiencing violence - the remaining six questions then help the physician explore the type and degree of abuse. However, a limitation of this study is the bias in the sample towards relatively older (mean = 46.2 years), white, higher SES and better-educated women - all of whom are generally at lower risk for domestic violence. Validation of this tool in at-risk groups would clarify its overall usefulness in primary care.

Another approach to detecting violence against women in the primary care setting is to screen men. In one such study Oriel and Fleming (1998) used the CTS to screen 237 men, presenting at a family medicine clinic, for self-reported incidence and frequency of spouse abuse. An important caveat in this study is that participation was anonymous and confidential - men completed the survey, which also included many other health-related questions, and returned it anonymously to the researchers. Thus disclosure to the physician and subsequent intervention for those who reported violence was not part of the study, likely limiting its generalizability to routine care situations.

The study instead aimed to determine the prevalence of domestic violence and describe the characteristics of men reporting both positive and negative for violence. In all, 13.5% (32/237) reported perpetrating minor abuse and 4.2% (10/237) severe abuse. Significant demographic differences included higher rates of abuse for poorer, non-white men. Depressed men and those who reported drinking more than two drinks per drinking episode or using drugs were more likely to be violent, as were those who reported being abused as children.

While the approach of screening men for domestic violence is potentially important, there is currently a lack of data indicating the accuracy or reliability of this approach, and its effect on violence outcomes.

Pregnant women

The Abuse Assessment Screen (AAS), a brief structured screening interview, can detect abuse during pregnancy better than standard social service interviews (Norton et al., 1995), and as well as longer validated self-administered questionnaires such as the CTS and the ISA (McFarlane et al., 1992). Inclusion of this type of tool as part of an abuse assessment protocol has been shown to dramatically increase detection of cases of violence during pregnancy (Covington et al., 1997; Wiist & McFarlane, 1999), as well as referral to an abuse counselor (Wiist & McFarlane, 1999).

Again, however, no study has examined the impact of screening for abuse during pregnancy on maternal or infant health outcomes, or even on such intermediate outcomes as safety behaviour or increased use of social supports or community resources.

Treatment Interventions for Violence Against Women

A central question outlined in the analytic framework is whether there are any effective interventions available for preventing violence against women. These can be divided into three main categories: 1) primary care interventions including such maneuvers as counseling; 2) interventions to which primary care practitioners can refer patients (for example, family support services) and 3) interventions outside the scope of primary care (for example, special police programs focused on violence against women).

Interventions for women

Primary care interventions

No studies met the inclusion criteria for this type of (non-screening) intervention.

Interventions for referral by primary care clinicians

Of 20 articles in this category, 11 met the criterion of having a comparison group and were then independently reviewed by two authors for internal validity. The 11 articles actually included only four interventions, since one intervention -post-shelter advocacy counseling – was described in six articles (Sullivan, 1991; Sullivan & Davidson, 1991; Sullivan et al., 1992; Sullivan et al., 1994; Tan et al., 1995 and Sullivan & Bybee, 1999). The three other interventions included one assessment of shelter effectiveness (Berk et al., 1996), a program of personal and vocational counseling for abused women (Cox & Stoltenberg, 1991), and prenatal counseling designed to reduce further abuse (McFarlane et al., 1997; McFarlane et al, 2000; Parker et al., 1999). Table 3 summarizes these studies.

No studies meeting the criteria for a quality rating of “good” or “fair” exist that test the effectiveness of shelters for battered women. Using a case-control design, Berk et al. (1986) interviewed battered women (identified either by their referral to a shelter or to the county prosecutor) in a two-wave panel over 18 months. In the first wave, 243 women participated, 155 of whom were available for the second interview (with a mean interval between interviews of 54 days). The study compared those women who had, for their own reasons and of their own choice, elected to enter a shelter during the interval between interviews to those who had not. Of the 155 women, 37% (n = 57) reported one shelter stay between interviews; 63% (n = 98) reported not entering a shelter. The main outcome measure was self-reported number of new incidents of violence between interviews (along with other related measures, including awareness of community resources). Most of the sample (81%), regardless of shelter status, reported no new violence in the time between interviews. Of the 30 women (19%) experiencing violence, 22 (14%) reported a single incident, and 8 (5%) reported multiple incidents (to a maximum of six). There was no difference between the shelter and non-shelter groups in reported violence. This study suffers from several methodological weaknesses as outlined in Table 3, including selection bias. The relatively short interval between interviews makes it difficult to interpret whether the lack of recidivism in the majority of the sample was due to the intervention, the woman's participation in the study, or the relatively short time period.

Advocacy counseling for women with abusive partners recruited from a shelter was evaluated, using an RCT design, in a pilot study (Sullivan, 1991; Sullivan & Davidson, 1991), a six-month follow-up involving 146 participants (Sullivan et al., 1992; Sullivan et al., 1994; Tan

et al., 1995), and a two-year follow-up with 284 subjects (Sullivan & Bybee, 1999). (The latter study may well have been a continuation of the previous trial.) Since the most recent study included the largest sample for the longest follow-up period, it will be discussed in detail. The study was considered to meet the internal validity criteria for a rating of “fair”, due mainly to reliance on self-report measures for all of the outcomes. Women who had spent at least one night in a shelter were randomly assigned to receive either advocacy services four to six hours a week for ten weeks following shelter exit, or no contact other than for interviews. The sample ranged in age from 17 to 61 years; 45% were African American and 42% were European American. Sixty-nine percent of women were either married to or living common-law with their assailants. Advocates were undergraduate university students who underwent intensive training and supervision. The focus of the intervention was on assisting women with devising safety plans (if needed) and accessing community resources such as housing, employment, and social support. The advocacy intervention had five phases: assessment, implementation, monitoring, secondary implementation, and termination. On average, women saw their advocates twice per week (mean = 6.4 hours per week) over the 10 week intervention period. Following the initial assessment phase, where the advocate and woman together determined the woman’s immediate needs and longer-term goals, subsequent phases had the advocate and woman work closely together to mobilize community resources such as education (84% of women); legal aid (72%); employment (72%); children’s services (68% of women with children); housing (67%); child care (63% of mothers); transportation (62%); financial aid (61%); health care (60%); and social support (47%).

Of the 284 initial study participants, 278 women remained in the trial; complete longitudinal data were available for 242 of these cases. Women in the intervention group reported less re-abuse over two years compared to those in the control group (76% compared to 89% respectively). Physical violence decreased for the experimental group across time and there was a group by time interaction. Quality of life was also better for women in the intervention group and improved across time. No differences were observed between the groups in reports of psychological abuse or depression. There was an increase in self-reported intermediate outcomes, including social support and effectiveness in obtaining resources.

The second intervention was a program of personal and vocational counseling for abused women who had remained in a women’s protective service for at least two weeks (Cox &

Stoltenberg, 1991). Of an initial sample of 50 women, only seven were considered as remaining in the original control group, while two experimental groups included nine and seven subjects respectively. Those women who dropped out following pre-testing were allocated to a second control group, or a third experimental group. Although there was some improvement noted in measures such as self-esteem, the limits in the design and analysis did not allow for conclusions to be drawn from this study.

Prenatal counseling for pregnant women with a history of abuse was the third intervention evaluated using one or more comparison groups (McFarlane et al., 1997; McFarlane et al., 2000; Parker et al., 1999). In a cohort study assessing individual counseling by a nurse (McFarlane et al., 1997; Parker et al., 1999), three sessions were provided to 132 women in a prenatal setting. A comparison group of 67 post-partum women were given an information card. The earlier study focused on the relationship between resource use and reports of abuse, rather than on the effectiveness of the intervention (McFarlane et al., 1997). Parker and colleagues (1999) compared the experimental and comparison groups on self-reports of violence. While women who received the counseling intervention reported less violence, flaws in design of the study such as difference in parity status between the two groups preclude determining the effectiveness of the intervention. In a recent quasi-randomized trial by McFarlane and colleagues (2000), three levels of intervention – brief (information card), counseling (professional) and outreach (professional plus “mentor mother”) were compared in a sample of pregnant physically abused predominantly Hispanic women screened before entry into the study. Although severity of abuse decreased significantly across all interventions groups, there were no statistically significant differences among the groups at 18 months. Furthermore, the methodologic shortcomings of the trial, including a flawed randomization procedure, limit the conclusions that can be drawn from this study.

Of the three interventions considered in this part of the analytic framework, only post-shelter advocacy counseling has undergone sufficient investigation to consider a recommendation regarding this maneuver.

Interventions for Batterers and/or Couples

Table 4 summarizes those interventions for men who abuse their female partners; some maneuvers are aimed exclusively at men while others include their partners. It includes 10

studies and one systematic review of batterer and/or couple programs. Within individual studies, often more than one treatment approach was evaluated. For example, some investigators compared the effectiveness of a group program for men to couple counseling within the same study. The majority of studies compared treatments without a control group; only two studies used a randomized controlled design. Nine of the studies did not meet the quality criteria for a rating of “good” or “fair”, precluding the drawing of conclusions, thus they are included only in Table 4. The systematic review included two RCTs, one of which overlapped with the individual studies (Palmer et al., 1992), while the other (Davis & Taylor, 1997) is reviewed in the section “Other Interventions”, below.

The systematic review was given a quality rating of “fair” (Davis & Taylor, 1999). While the methodological quality of the individual studies was assessed in detail within the review, it was unclear whether two authors independently assessed the studies, and search strategies were not described. Of the nine individual studies, only one was considered of good quality. Davis and Taylor (1999) discussed the RCT by Dunford (2000), but the trial had not been completed at the time of review. It is of note that while several of the poor or fair studies reported some evidence of effectiveness for interventions aimed at batterers and/or couples, the only study of good quality concluded that three types of interventions showed no evidence of effectiveness in reducing subsequent violence against women.

This RCT of “good” quality, the “San Diego Navy Experiment” (Dunford, 2000), tested 12-month interventions, which included a group of weekly sessions for men, a conjoint group with men and their female partners, and rigorous monitoring with monthly individual counseling sessions, compared to a control group. Men assigned to the control group received no treatment, although their wives received stabilization and safety planning assistance like all wives in the treatment groups. This study involved a large sample of couples ($n = 861$), had a low attrition rate, and measures included both self-reports of victims and perpetrators, as well as arrest records. Since the sample consisted entirely of U.S. Navy couples, it is not clear how these results can be generalized to other populations. As the author emphasizes however, this military setting provided certain advantages in that all of the men were required to attend treatment. One of the major threats to validity in other studies is the high attrition rate; perhaps use of a military setting was related to the low dropout rate in this study. Dunford (2000) highlights the fact that many of the batterer treatment programs that report success have not employed an experimental

research design. The low recidivism rate among those men who received one of the three treatments in this RCT did not differ from the rate among control subjects. It is possible that employment in a military setting acts as a deterrent among men who commit violence against their wives. This trial was not able to control for this variable, since all participants were US Navy couples where the husband was on active duty. It is important to note that all three treatment groups and the control group had low recidivism rates compared with the rates reported in other studies. For example, the arrest recidivism rate for the three treatment groups ranged from 3% to 6%, and the rate for the control group was 4%.

Other Interventions

The objectives of this review do not include making recommendations on maneuvers outside the scope of primary care, however, for completeness, the following sections briefly discuss responses to violence against women in various health and non-health-care settings.

Health care interventions in non-primary care settings

Approximately 37% of women presenting in emergency departments report having been victims of emotional or physical abuse at some point during their lives; 2.2% present with acute physical trauma resulting from partner abuse, and 14.4% report having been abused in the past year (Dearwater et al., 1998). In response to these significant proportions, and also to the accreditation standards implemented in 1992 (Chalk & King, 1998), interventions designed for emergency room settings (in addition to the screening procedures reviewed above) have been designed and evaluated. In one such study, Fanslow et al. (1998) developed and examined a protocol of care for victims of partner abuse, and provided one year follow-up data (Fanslow et al., 1999). This was a comparative study of the only two emergency departments (EDs) in Auckland, New Zealand. The protocol was based on the principles of care outlined by the American Medical Association (1992), including providing staff training on recognizing injuries, illnesses and behaviors indicative of domestic violence, asking appropriate screening/case finding questions, assessing immediate risk and providing proper intervention (including depression assessment, counseling about police and legal options, and safety planning, in addition to treatment of physical injuries) and referral to community and social services. Following acquisition of baseline data in both hospitals via random chart audit of women > 15 years to determine the presence or absence of assault and how it was treated, medical and

reception staff in the intervention ED were trained to implement the protocol. The protocol was implemented in the intervention hospital during 1993, with post-intervention data collection beginning at both sites in October 1993 and continuing for 3 months. One-year follow-up data was collected beginning in October 1994, also for 3 months.

Results immediately post-intervention (experimental $n = 2276$, comparison $n = 1768$) (Fanslow et al., 1998) indicated that more cases of domestic violence were rated as confirmed (rather than suspected) following the intervention in the experimental site, and a trend to improved documentation of abuse. This was coupled with a significant increase in use of appropriate treatment interventions in the experimental ED, particularly in safety assessment and planning, counseling regarding police use, and referral to other services. However, these positive changes were not maintained at the one-year follow-up (Fanslow et al., 1999).

The study authors interpret the lack of sustainability as a failure more of concerted and ongoing maintenance training and reinforcement than problems with the protocol itself. It should be noted that the prevalence of domestic violence-related presentation in this New Zealand sample was low compared to American and Canadian populations (2.6% of all presentation and 7% of trauma presentations were due to partner abuse); and the protocol advocated a case-finding approach based on presenting symptoms, rather than a routine screening approach. These factors may limit the generalizability of this study.

Similarly, there is some evidence that system-based training of emergency department professionals can improve a department's "culture" regarding identification of and response to violence against women (Campbell et al., 2001), however, more research is required to determine if this kind of systems change approach can improve identification of abused women (especially those presenting without trauma, who are a significant proportion, see Zachary et al., 2001). Again, the subsequent key link between identification of abuse, and treatment/outcomes requires investigation and substantiation.

Social interventions

In the sole study of this type meeting the inclusion criteria of having a comparison group and measuring appropriate outcomes, Davis & Taylor (1997) conducted a unique randomized controlled trial in New York City testing two types of public interventions addressing both

primary and secondary prevention. Their primary prevention initiative randomly assigned 64 housing projects (containing approximately 93,000 people) to receive or not receive a public education campaign consisting of tenant meetings, leaflets, and posters. Their secondary prevention intervention randomized 436 individuals (380 women [87%], and 56 men [13%]) who experienced family violence (as identified by a police-reported complaint), drawn from public housing households in three New York precincts, to receive or not receive a 10 to 30 minute home follow-up visit from a police officer and social worker. For both interventions, outcome measures included interviews with victims regarding subsequent violence (as measured using the CTS), reports to police, victims' knowledge and use of services, and official police reports of violence. Measures for both interventions were collected during a six month follow-up (from initiation of the education campaign, or time of the home visit). Results indicated that for the abuse outcomes, neither public education nor home visits reduced the frequency of new violence or severity of victim-reported violence. For the other outcomes, victims who received public education compared to controls and those who received home visits compared to controls called the police more frequently. Neither intervention affected service-awareness or service-use scores of victims. The study was generally well-conducted, although a lack of blinding, and some mis-assignment of the home visit intervention (16.6% of cases) was reported (although the analysis did not show any pattern to the mis-assigned cases). Loss to follow-up was moderate (28%).

In other efforts at primary prevention of partner abuse, some studies have attempted to develop and evaluate the effect of educational campaigns directed at young people. A major limitation of these studies is that the main outcome is change in knowledge/attitudes either immediately post-intervention, or after a brief follow-up. No such study has attempted to follow the subjects for an extended period to determine the impact of education on later incidence of intimate partner violence.

For example, Jaffe et al. (1992) developed an intervention to educate administrators, teachers, parents and grade 9-13 students in a large school board catchment area (London, Ontario). Selected students at four participating high schools were exposed to varying intensities of the intervention: all four schools received a large-group (auditorium) presentation about the myths and facts concerning wife abuse (approximately 1.5 hours); two of the schools then implemented small group (classroom) discussions facilitated by community-based experts that

lasted approximately one hour. The other two schools implemented an enhanced protocol including both the classroom discussion and an extra half-day for students to explore key issues, develop school action plans about family violence, and develop student plays, violence awareness weeks and fundraising activities for local services. No control group was employed.

The students completed a questionnaire, designed for this study but not tested for reliability or validity, which assessed their knowledge and attitudes about wife assault, sex roles, and dating violence, and also asked about how they would behave in a number of violence-related scenarios. Results were mixed, indicating significant changes from pre-intervention to post-intervention scores in both desired (increase in positive attitudes about abuse) and undesired (increase in negative attitudes about abuse) directions. For example, males had equal changes in both the desired and undesired directions on 17% (8/48) of the questions. Females had positive changes in 23% (11/48) questions. Students from two of the schools were followed-up 5 to 6 weeks later, with most of the positive changes sustained, but six new items moving significantly in the undesired direction - two of these previously having been positive, and four not significant.

Again, the lack of behavioral outcomes, and significant methodological concerns, make the results of this specific study difficult to interpret. However, it is representative of the types of primary prevention studies that currently exist (see also Walther, 1986; Krajewski et al., 1996; and Chalk & King, 1998 for a review). Clearly, more evaluative research using stronger designs is required to determine if educational approaches can reduce domestic violence.

Policy interventions

An important and well-publicized series of research studies was conducted in the 1980s to determine the effectiveness of various police responses to domestic violence. The original study, the Minneapolis Domestic Violence Experiment (Sherman & Berk, 1984), had police officers respond to calls of misdemeanor domestic violence according to one of three randomly selected protocols: arrest the perpetrator, separate the couple, or provide advice. Each officer carried a report pad with a randomly generated response order - they were to respond according to whatever response was at the top of the pad for that call. The study found that violence

recidivism rates were significantly lower for those arrested six months later (Sherman & Berk, 1984).

These results had a significant impact on public policy in the United States, with arrest becoming a main strategy for dealing with misdemeanor domestic violence, and the perception of domestic violence changing from a personal, family problem, to a crime (Chalk & King, 1998). However, a series of six replication studies, the Spouse Abuse Replication Program, funded to confirm the original results, found variable levels of effectiveness. In some sites, there was an escalation of subsequent violence in the arrested men, while others showed the predicted deterrent effect (see Garner et al., 1995 for a full review).

A key finding arising from these studies was the importance of interaction effects between individual characteristics and arrest. For example, arrest has a much stronger deterrent effect on employed men (i.e. those with “more to lose”), than unemployed men (e.g. Pate & Hamilton, 1992). The implications of these types of findings has not been studied (Chalk & King, 1998).

The arrest policies arising from this research in no doubt led to the many studies on the effectiveness of batterer treatment programs (reviewed above), since this kind of treatment was/is often mandated as a probation requirement.

Few studies have examined the influence of other legal or policy interventions on domestic violence outcomes (Chalk & King, 1998), and none have done so in Canada.

Potential Harms of Interventions

As outlined above, several screening tools have been developed to detect exposure of women to violence by men. However, no studies to date have evaluated either the benefits or harms associated with the use of such screening tools, including the potential harms from failing to identify abused women (either through not screening, or through false negatives during screening). Similarly, none of the interventions developed to prevent violence against women, including recurrent abuse, actively instituted measures to determine possible harms associated with the intervention. Several of the studies compared different treatments, and did not include a control group such that the likelihood of identifying any harms associated with the interventions was reduced. The Berk et al. (1986) study was one of the few to identify a possible harm

associated with an intervention – in their case, shelters – aimed at reducing violence against women. Their results suggested that the use of shelters might increase the risk of further abuse for some women, however limitations in their study design preclude reaching any firm conclusions.

None of the screening or intervention studies examined the financial costs or savings associated with the maneuvers appraised in this review.

As mentioned above, an often-cited (e.g. Berk et al., 1986; Ferris et al., 1999) potential harm of domestic violence interventions is that some women who seek help for abuse may be at risk of reprisal violence. While this has not been established or quantified as part of a study designed to measure this kind of outcome, it is a potential concern, and indeed was the main patient-related barrier to screening cited (by 82% of respondents) in a study that surveyed primary care physicians about their screening and intervention practices for intimate partner abuse (Rodriguez et al., 1999). Clinicians should consider this, as it underscores the need to conduct visits that include discussion of these issues in a private setting, with adequate safety and confidentiality measures taken in any referral process.

INTERPRETATION

Summary of Key Evidence

Although several screening instruments with acceptable psychometric properties have been developed, there is no evidence that screening for domestic violence is effective in reducing violence against women, or associated negative outcomes. In addition, data about the potential harms associated with screening for violence against women are lacking.

There were four types of interventions for abused women evaluated within the category of program referrals by primary care physicians: shelters, post-shelter advocacy counseling, personal and vocational counseling, and prenatal counseling. No evidence of suitable quality exists to evaluate the effectiveness of shelters as a means of decreasing the incidence of violence. Among women who had spent at least one night in a shelter, there was fair evidence that those who received a program of advocacy services as described above reported a decreased rate of reabuse and improved quality of life during the subsequent two years (Sullivan & Bybee, 1999). With regard to the two other types of interventions, limitations in the study designs and methods

precluded drawing any conclusions about program effectiveness (Cox & Stoltenberg, 1991; McFarlane et al., 1997; McFarlane et al., 2000; Parker et al., 1999).

The category of programs that target male batterers alone or with their partners represents the largest group of interventions. Of 10 studies and one review, only the trial by Dunford (2000) was considered of good quality. This RCT (The San Diego Navy Experiment) showed that three programs for batterers and/or their female partners (weekly men's group, a conjoint group with men and their female partners, and monitoring with individual counseling sessions) showed no reduction in domestic violence compared to a control group. Despite the excellent internal validity of this trial, the extent to which these findings are applicable to the general population is unclear since the sample consisted entirely of US Navy couples.

This paper does not include a systematic review of maneuvers outside the scope of primary care, although a summary of health care interventions for non-primary care settings, community and policy interventions is provided. One study found that a protocol for treatment of abused women in the emergency department showed some initial positive changes (such as referral to other services), but these were not sustained at one year (Fanslow et al., 1998; 1999). A second study of two community-based interventions (public education and police/social worker home visits) showed that neither intervention affected service-awareness or service-use scores of victims (Davis & Taylor, 1997). A second education intervention that targeted youth in schools focused on change in knowledge and attitude, and did not include a control group (Jaffe et al., 1992). Finally, a series of US studies evaluating the effectiveness of arrest as a deterrent for recurrent domestic violence showed mixed results. Although the original study (Sherman & Berk, 1984) suggested that arrest was effective in reducing subsequent domestic violence compared to separating the couple or providing advice, six replication studies found variable results including increases in violence (Garner et al., 1995). We found no Canadian studies that have examined the effect of legal interventions on violence against women.

Canadian Task Force Recommendations (Table 5)

Screening

Women: Due to the lack of a demonstrated link between screening and the reduction of violence outcomes, the Canadian Task Force concludes that there is insufficient evidence to recommend

for or against routine screening for violence against either pregnant or non-pregnant women (**I Recommendation**). This is distinct from the need for clinicians to include questions about exposure to domestic violence as part of their diagnostic assessment of women. This information is important in caring for the patient, and may influence assessment and treatment of other health problems.

Men: The Task Force concludes that there is insufficient evidence to recommend for or against primary care screening of men as perpetrators of domestic violence (**I Recommendation**).

Interventions for Pregnant & Non-Pregnant Women

Primary Care Counseling: The Task Force concludes that there is insufficient evidence to recommend for or against counseling of abused women by primary care clinicians, although decisions to do so may be made by the clinician and patient on other grounds (**I Recommendation**).

Referral to Shelters: The Task Force concludes that there is insufficient evidence to recommend for or against referral to shelters, although decisions to do so may be made by the clinician and patient on other grounds (**I Recommendation**).

Referral to Post-Shelter Advocacy Counseling: The Task Force concludes that there is fair evidence (level I, fair) to refer women who have spent at least one night in a shelter to a structured program of advocacy services as outlined in the study by Sullivan & Bybee (1999) (**B Recommendation**).

Referral to Personal and Vocational Counseling: The Task Force concludes that there is insufficient evidence to recommend for or against referral to personal or vocational counseling, although decisions to do so may be made by the clinician and patient on other grounds (**I Recommendation**).

Interventions for Men and/or Couples

Batterer/Couples Interventions: The Task Force concludes that there is conflicting evidence regarding the effectiveness of batterer interventions (with or without partner participation) in reducing rates of further domestic violence (**C Recommendation**).

Recommendations of Others

The Canadian Task Force on Preventive Health Care did not previously have recommendations regarding partner abuse. In 1996, the US Preventive Services Task Force concluded that there was insufficient evidence to recommend for or against using specific screening tools to detect domestic violence, although clinicians should be alert to signs of abuse and may use selective screening questions if indicated. The American Medical Association's Council on Scientific Affairs (1992) recommended routine screening in primary care settings and a structured approach to documentation and referral to appropriate community resources.

The Society of Obstetricians and Gynaecologists of Canada (1996) advocates a high degree of clinical suspicion and outlines key physical and psychological presenting symptoms. While not directly encouraging routine screening, they provide a brief set of screening questions to be used as part of history-taking. The American College of Obstetricians and Gynecologists (1995) takes a similar approach. Both groups also provide guidance regarding counseling (including safety planning), referral and follow-up. A similar case-finding approach is also advocated by the American Academy of Pediatrics (1998).

Implications for Clinical Practice

Although much has been learned in recent years about the epidemiology of violence against women, information about evidence-based approaches in the primary care setting for preventing domestic violence is seriously lacking. Furthermore, the primary care physician is the person most likely to see patients with medical problems related to domestic violence (Koss, Koss & Woodruff, 1991). It is important to distinguish between asking about domestic violence during the diagnostic evaluation of a patient, and routine screening for domestic violence in health care settings. Clearly, **questions about exposure to domestic violence should be included in any medical or psychiatric assessment of a patient with symptoms or signs that could be associated with such exposure and it is important for clinicians to be alert to these signs.** Some authors have suggested that asking female patients about exposure to violence during routine history-taking may be justified on the basis of the potential value of this information in caring for the patient (Cole, 2000). Such information may influence assessment

and treatment of other health problems. Furthermore, failing to detect that a patient is at risk for or has been exposed to domestic violence may lead to unnecessary investigations and interventions (Leserman et al., 1998).

Screening, however, involves a very different focus; it is used in reference to case-finding (Canadian Task Force on the Periodic Health Examination, 1994). Indeed “screening for intimate partner abuse implies a standardized assessment of patients, regardless of their reasons for seeking medical attention” (Cole, 2000, p. 551). Some authors suggest that routine screening for domestic violence should be included in all health care encounters with women (Waaalen et al., 2000), because of the high prevalence of undetected abuse in women, and the link with a wide range of medical conditions (Cole, 2000). To date, however, there is no evidence that case-finding through screening for domestic violence leads to better clinical outcomes, or does more good than harm. The diagnostic evaluation and management of women at risk of or suffering from exposure to violence while important, is beyond the scope of this review. This topic has been summarized in several reviews (Eisenstat & Bancroft, 1999; ACOG, 1995; Ferris et al., 1999). Health Canada’s Family Violence Prevention Unit provides a useful handbook for physicians, including recommendations for handling documentation, reporting, referral and follow-up, to help them recognize and deal with woman abuse in the context of the Canadian criminal justice system (Ferris et al., 1999).

Based on research to date, there is insufficient evidence to recommend for or against routine screening for violence against women. Similarly, there is insufficient evidence to recommend for or against any specific interventions for women exposed to violence, other than referral for post-shelter advocacy counseling as outlined in the program by Sullivan and Bybee (1999). Since this US-based program is likely unavailable in most if not all Canadian communities, primary care practitioners can advocate for creation of such a program in Canada. It focuses on assisting women exiting from a shelter with safety planning and accessing community resources such as housing, employment, and social support. The extent to which this program produces similar findings in Canada needs to be evaluated before widespread implementation can be recommended. It should be noted, however, that the effectiveness of shelters in preventing ongoing violence against women is unknown. In addition, some literature points to the fact that the success of these types of interventions (shelters; advocacy counseling) cannot necessarily be measured using incidence and severity of re-abuse as primary outcomes.

Indeed, many would argue that more proximate outcomes, such as providing immediate safety, emotional support, and instrumental support in finding housing, employment and other community resources are the measure of an effective shelter stay, at least from the woman's perspective. Awareness of this by clinicians can help them work with women to meet these kinds of needs.

Primary care practitioners may also be asked, either by their male patients, or the partners of their male patients, about the effectiveness of programs for male batterers. Although the San Diego Navy Experiment (Dunford, 2000) provides good evidence that the three types of programs evaluated in that study did not show any reduction in recurrent violence against women compared to the control group, the nature of the sample precludes generalizing these results at this time. Current research exploring the postulated existence of "batterer typologies" (Holtworth-Munroe et al., 2000; Holtworth-Munroe and Stewart, 1994) may shed light on ways to tailor treatments to men to maximize the likelihood of effectiveness.

Given the high prevalence of and impairment associated with violence against women, it is important that primary care practitioners maintain a high index of suspicion when assessing patients (USPTF, 1996). While some interventions like referrals to shelters or for counseling may be appropriate for specific cases (USPTF, 1996), there is insufficient evidence to make recommendations for or against these interventions other than for post-shelter advocacy counseling. However, the decision to refer a patient to these services may be made on other grounds.

Research Agenda

This systematic review clearly identifies the need for additional research employing rigorous designs to test the effectiveness of domestic violence interventions on important clinical outcomes. The following questions need to be answered, both to allow primary health care providers to respond appropriately to domestic violence, and to inform a more proactive approach to prevention at the level of public policy.

- Is screening, coupled with appropriate treatment, effective in reducing rates of physical injury and psychological abuse due to domestic violence? If so, what is the best screening method, at what interval, and who should perform it?

- What treatment interventions for women, both in terms of immediate safety, emotional and instrumental support needs and longer-term physical and psychological well-being, are effective in reducing rates of physical injury and psychological abuse due to domestic violence? What is/are the optimal duration(s) for treatment, and who should provide it?
- Are immediate safety, safety planning, emotional and instrumental support outcomes significantly correlated with reduction in the health outcomes of physical injury and psychological impairment associated with abuse?
- Are batterer interventions effective with men not mandated to treatment and who are not monitored by courts or other authorities? Do postulated batterer “typologies” have implications for treatment approaches?
- Do broad-scope educational campaigns prevent acts of (rather than knowledge/attitudes to) domestic violence? Are there other primary prevention strategies effective in reducing the incidence of domestic violence?

Ongoing studies funded by the Canadian Social Sciences and Humanities Research Council, and the US Family & Intimate Violence Prevention Program of the National Center for Injury Prevention and Control may answer some of these questions.

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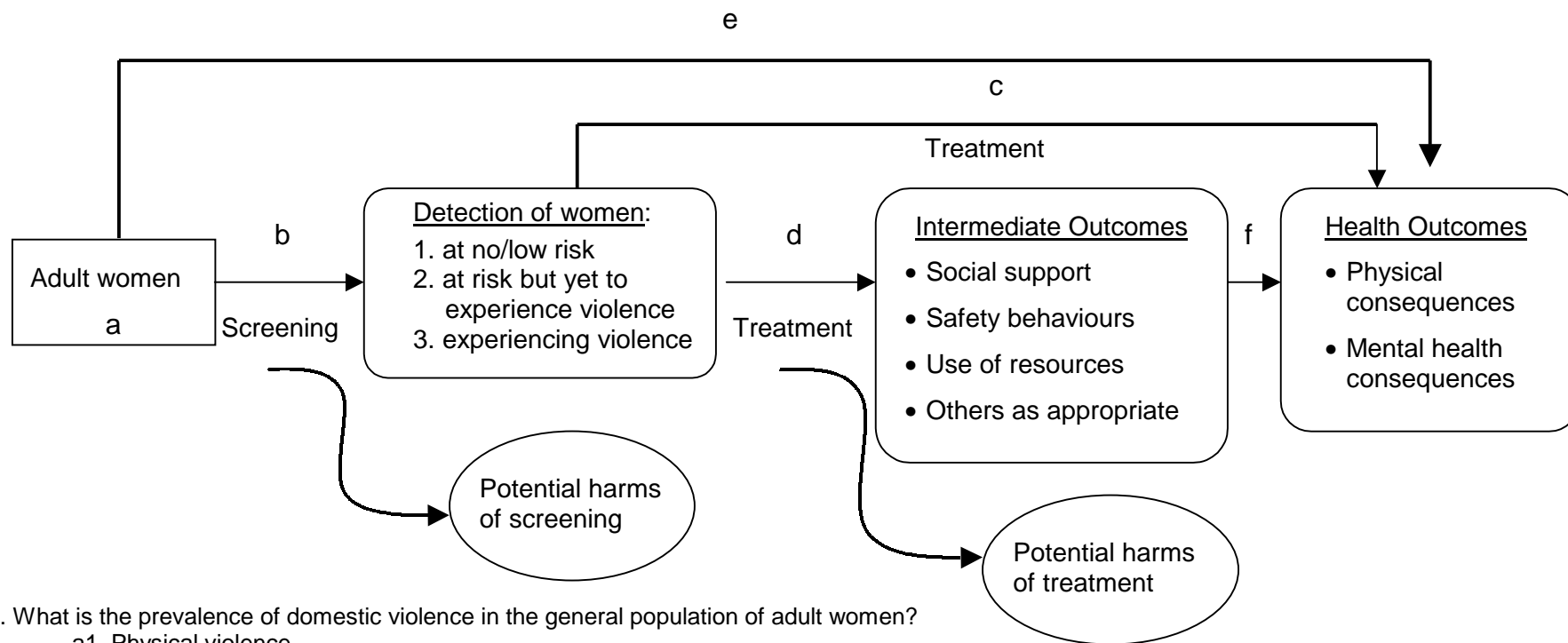
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Figure 1: Analytic Framework & Key Questions



- a. What is the prevalence of domestic violence in the general population of adult women?
 - a1. Physical violence
 - a2. Emotional abuse
 - a3. Abuse during pregnancy
- b. Can screening detect women at risk for, or suffering from domestic violence?
 - b1. What screening manoeuvres are available?
 - b2. What are the performance characteristics of the available manoeuvres?
 - b3. Are the tests acceptable to patients?
 - b4. What are the potential harms related to screening?
- c. Does treatment reduce the incidence or severity of health outcomes?
 - c1. What treatment interventions are available?
 - c2. What are the efficacy and effectiveness data on treatments in the ideal (study) settings? How does this compare with/generalize to community settings?
 - c3. What are the potential harms related to treatment?
- d. Does treatment result in better intermediate outcomes, including adoption of safety behaviours, use of resources, access to social support, etc.
- e. Is there direct evidence that primary prevention programs (with or without screening) reduce the incidence or severity of physical and/or mental health consequences?
- f. Is there a reliable association between the intermediate outcomes and the health outcomes?

Table 1: Summary of Risk Indicators for Domestic Violence Against Women

Population	Indicators	Number of studies that identify indicator
Female risk indicators (of being a victim)	• witness abuse during childhood	4 (Hotaling and Sugarman, 1986; Kyriacou et al., 1999; Aldarondo & Sugarman, 1996; Coker et al., 2000)
	• demographic factors (including age <25 yrs†; low SES; less than high school education*; unemployment)	4 (Statistics Canada, 2000, Magdol et al, 1998; Coker et al., 2000; Dearwater et al., 1998)
	• having a former partner; or currently separated or divorced	4 (Koziol-McLain et al., 2001; Dearwater et al., 1998; Kyriacou et al., 1999; Coker et al., 2000)
	• history of behaviour problems (childhood, adolescence)	1 (Magdol et al, 1998)
	• growing up without both or either parent(s)	1 (Magdol et al, 1998)
	• growing up with family conflict	1 (Magdol et al, 1998)
	• low IQ	1 (Magdol et al, 1998)
	• co-morbid health conditions (e.g., obstetric, gynecologic symptoms and substance abuse)	1 (Zachary et al., 2001)
Pregnant female risk indicators (of being a victim)	• having an unwanted pregnancy	3 (Cokkinides & Coker, 1998; Stewart & Cecutti, 1993; Centers for Disease Control and Prevention, 1994)
	• demographics (including being unmarried, less well-educated and younger)	2 (Centers for Disease Control and Prevention, 1994; Stewart & Cecutti, 1993);
	• number of stressful life events	2 (Muhajarine & D’Arcy, 1999; Cokkinides & Coker, 1998)
	• increased parity	1 (Cokkinides & Coker, 1998)
Male risk indicators (of being an abuser)	• alcohol and/or drug use (esp binge drinking)	5 (Hotaling and Sugarman, 1986; Kyriacou et al., 1999; Pan et al., 1994; Goldkamp, 1999; Statistics Canada, 2000; Coker et al., 2000)
	• demographic factors (including younger age, low SES; less than high school education)	4 (Hotaling and Sugarman, 1986; Kyriacou et al., 1999; Pan et al., 1994; Magdol et al., 1998)
	• witnessing abuse during childhood	3 (Hotaling and Sugarman, 1986; O’Leary et al., 1994; Aldarondo & Sugarman, 1996)
	• unemployment	2 (Kyriacou et al., 1999; Coker et al., 2000)
	• mental health or previous behavioral problems (e.g. depressive symptoms; behavioral problems in	2 (Kyriacou et al., 1999; Magdol et al., 1998)

Population	Indicators	Number of studies that identify indicator
	childhood)	
	• use of violence toward children	1 (Hotaling and Sugarman, 1986;)
(Male indicators, cont.)	• growing up without both parents	1 Magdol et al., 1998
	• sexual aggression toward female spouses	1 (Hotaling and Sugarman, 1986;)
“Couple” indicators (that female will be abused)	• marital conflict	3 (Hotaling and Sugarman, 1986; Aldarondo & Sugarman, 1996; Pan et al., 1994)
	• low SES	2 (Hotaling and Sugarman, 1986; Aldarondo & Sugarman, 1996)
	• verbal aggression	2 (Hotaling and Sugarman, 1986; O’Leary et al., 1994)
	• status other than married (including common-law)	2 (Hotaling and Sugarman, 1986; Statistics Canada, 2000)
	• age difference > 10 years	1 (Coker et al., 2000)
	• religious incompatibility	1 (Hotaling and Sugarman, 1986)

† while younger age is generally associated with increased rates of violence in women, some studies have found that physical and sexual violence increase with advancing age (Coker et al., 2000)

* lower education of women was found to predict abuse in women in the Magdol et al. 1998 study, but was not found to be correlated with abuse in the Canadian General Social Survey (Statistics Canada, 2000).

Table 2: Literature Search Strategies

<u>Database</u>	<u>Dates</u>	<u>Keywords</u>
MEDLINE (via PubMed)	1966 to March 2001	“domestic violence”, “spouse abuse” and “battered women” broadly and in various combinations with “epidemiology”, “clinical trial”, “meta-analysis”, “practice guideline”
PsycINFO	1984-March 2001	“battered females”, “partner abuse”, “physical abuse”, “sexual abuse” and “shelters” with limits to English, human and adults.
CINAHL	1960-March 2001	Partner Abuse (focus)
HealthSTAR	1975 - March 2001	Spouse abuse with with limits to English, human and adults.
Sociological Abstracts	1963 - March 2001	“spouse abuse” “battered women with English language limit

Table 3: Summary of Domestic Violence Intervention Studies: Primary Care Referral of Women

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
<p>Sullivan & Bybee, 1999 (RCT) (the completed longitudinal study of the following studies: Tan et al., 1995; Sullivan et al., 1994; Sullivan et al., 1992)</p>	<p>4-6 h/wk for 10 weeks postshelter of one-on-one advocacy counseling</p> <p>Interviews conducted at preintervention, shelter exit, at 10 weeks postintervention, and at 6, 12, 18 and 24 months of follow-up</p> <p>Physical violence: incidence of abuse (MCTS), risk for being reabused, social support, quality of life, and ability to obtain community resources</p> <p>Psychological abuse: several psychological outcomes (all self-report)</p>	<p>Women leaving shelter after at least 1 night's stay</p> <p>Initial participants, N = 284</p> <p>Analyzed, n = 278</p> <p>Completed study, n = 265</p> <p>Intervention group, n = 135</p> <p>Control group, n = 130</p> <p>Lost to follow-up, n = 13 (groups not specified)</p>	<p>Abuse outcomes:</p> <p>Physical violence at postintervention and 2-year follow-up</p> <p>Intervention group reported significantly less violence than controls postintervention (group x time interaction $F_{4,260} = 2.38, P < .05$). At 2 years, 89% of controls reported reabuse, vs 76% of women in the intervention group</p> <p>No overall main effect of condition across the entire study</p> <p>No significant differences between groups over time for psychological abuse</p> <p>Overall significant decrease for both groups</p> <p>Intervention group had lower risk for reabuse at 2-year follow-up</p> <p>Other outcomes:</p> <p>Intervention group reported less involvement with assailants across time and more effective in "ending relationship when they wanted" and "reaching their goals"</p> <p>Intervention group was better able to obtain resources and reported higher satisfaction with social support and improved quality of life across time</p> <p>No significant differences in depression between groups</p>	<p>Acceptable loss to follow-up: 95% retention rate at 2 years and no differences in attrition between groups</p> <p>Complete longitudinal data available for 87% of participants</p> <p>Self-report outcomes</p> <p>No blinding</p> <p>(fair)</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
Sullivan et al., 1994 (RCT)	<p>4-6 h/wk for 10 weeks postshelter of one-on-one advocacy counseling</p> <p>Interviews conducted at preintervention, at 10 weeks postintervention, and at 6 months follow-up</p> <p>Physical violence: incidence of abuse (MCTS), risk for being reabused, social support, quality of life, and ability to obtain community resources</p> <p>Psychological abuse: several psychological outcomes (all self-report)</p>	<p>6-month follow-up results of Sullivan et al</p> <p>Women leaving shelter after at least 1 night's stay</p> <p>Initial participants, N = 146</p> <p>Included in analysis, n = 141</p> <p>Intervention group, n = 71</p> <p>Control group, n = 70</p> <p>Total lost to follow-up, n = 10 (groups not specified)</p>	<p>Abuse outcomes: no differences between groups</p> <p>Other outcomes: intervention group reported more access to resources and greater quality of life</p>	<p>Acceptable loss to follow-up (93% retention rate at 6 months)</p> <p>Self-report outcomes</p> <p>No blinding</p> <p>(fair)</p>
Sullivan et al., 1992 (RCT)	<p>4-6 h/wk for 10 weeks postshelter of one-on-one advocacy counseling</p> <p>Interviews conducted preintervention and at 10 weeks postintervention</p> <p>Physical violence: incidence of abuse (MCTS), risk for being reabused, social support, quality of life, and ability to obtain community resources</p> <p>Psychological abuse: several psychological outcomes (all self-report)</p>	<p>Women leaving shelter after at least 1 night's stay</p> <p>Initial participants, N = 146</p> <p>Included in analysis, n = 141</p> <p>Intervention group, n = 71</p> <p>Control group, n = 70</p>	<p>Abuse outcomes: no differences between groups</p> <p>Other outcomes: intervention group reported more access to resources, better social support, and greater quality of life</p>	<p>Self-report outcomes</p> <p>No blinding at 10 weeks but interviewer blinded to group assignment until after initial interview</p> <p>(fair)</p>
Sullivan, 1991 (RCT)	<p>6-8 h/wk for 10 weeks postshelter of one-on-one advocacy counseling</p> <p>Interviews conducted at preintervention, at 5 weeks during intervention, at 10 weeks postintervention, and at 20 weeks follow-up</p> <p>Incidence and severity of abuse (MCTS), independence from assailants, and ability to obtain community resources (all self-report)</p>	<p>Women leaving shelter after at least 1 night's stay</p> <p>Initial participants, N = 46</p> <p>Included in analysis, n = 41</p> <p>Intervention group, n = 25</p> <p>Control group, n = 16</p>	<p>Abuse outcomes: unable to adequately compare due to very small number of women involved with assailant</p> <p>Other outcomes:</p> <p>Intervention group better able to obtain resources</p> <p>No differences between groups for independence from assailants were</p>	<p>Small sample size disproportionately weighted to intervention group</p> <p>No blinding</p> <p>Impossible to evaluate abuse outcomes due to very small cohort size</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
	to obtain community resources (all self-report)		reported	(fair)
Sullivan & Davidson, 1991 (RCT)	6-8 h/wk for 10 weeks postshelter of one-on-one advocacy counseling Interviews conducted at preintervention, at 5 weeks during intervention, at 10 weeks postintervention, and at 20 weeks follow-up Incidence and severity of abuse (MCTS), independence from assailants, and ability to obtain community resources (all self-report)	Women leaving shelter after at least 1 night's stay Initial participants, N = 46 Included in analysis, n = 41 Intervention group, n = 25 Control group, n = 16	Abuse outcomes: unable to adequately compare due to very small number of women involved with assailant Other outcomes: Intervention group better able to obtain resources No differences between groups for independence from assailants were reported	Small sample size disproportionately weighted to intervention group No blinding Impossible to evaluate abuse outcomes due to very small cohort size (fair)
Tan et al., 1995 (RCT)	4-6 h/wk for 10 weeks postshelter of one-on-one advocacy counseling Interviews conducted at preintervention, at 10 weeks postintervention, and at 6 months follow-up Physical violence: incidence of abuse (MCTS), risk for being reabused, social support, quality of life, and ability to obtain community resources Psychological abuse: several psychological outcomes (all self-report)	Secondary analysis of data from Sullivan et al, 1994, to explore link between social support and abuse Women leaving shelter after at least 1 night's stay Initial participants, N = 146 Included in analysis, n = 141 Intervention group, n = 71 Control group, n = 70 Total lost to follow-up, n = 10 (groups not specified)	Abuse outcome: at postintervention (10 weeks) interview, women in the control group who had experienced violence were less satisfied with their social support while women in the intervention group were satisfied whether they experienced further abuse or not. This did not persist at follow-up	Acceptable loss to follow-up (93% retention rate at 6 months) Self-report outcomes No blinding (fair)
McFarlane et al., 2000 (quasi-randomized noncontrolled trial)	Subjects were screened for physical abuse during prenatal intake assessment and then assigned to 1 of the following 3 treatments: (1) brief – wallet information card and brochure with telephone numbers of	2 Prenatal clinics in a large southwestern US city. Included pregnant and predominantly Hispanic women who previously experienced physical abuse	Abuse outcomes: Threat of physical violence scores showed decrease from entry to postdelivery regardless of intervention group	Randomization procedure was flawed No blinding Only self-report measures of violence were reported

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
trial)	<p>and brochure with telephone numbers of local agencies that assist with domestic violence;</p> <p>(2) counseling – unlimited access during pregnancy to professional counselor in clinic who provided support, education, and referral to services;</p> <p>(3) outreach – same counseling services plus “mentor mother” (a nonprofessional who provided support, education, and referral to services through personal visits)</p> <p>Interviews with women regarding past and subsequent violence (Severity of Violence Against Women Scale) and use of community resources. Both types of measures collected at 2, 6, 12, and 18 months follow-up postdelivery</p>	<p>experienced physical abuse</p> <p>Screened, N = 342</p> <p>Entered in study, n = 329</p> <p>Available for analysis at 18 months:</p> <p>Brief, n = 94</p> <p>Counseling, n = 73</p> <p>Outreach, n = 92</p>	<p>Physical violence scores of outreach intervention group were significantly lower than the counseling only group scores but not scores of the brief intervention group at 2 months postdelivery; no statistically significant differences among groups at 6, 12, and 18 months were reported</p> <p>Other outcomes: over time, use of community resources decreased in all 3 groups, but no significant difference in use of resources across groups was reported</p> <p>Loss to follow-up was 21%</p>	<p>Outcome measures were not well validated</p> <p>(poor)</p>
Parker et al., 1999 (cohort study)	<p>One-on-one sessions conducted the same as in McFarlane et al, 1997</p> <p>Half of the intervention group also was offered additional sessions with shelter workers, but minimal participation led to collapsing of the 2 initial intervention groups into 1</p> <p>Comparison group had wallet-sized information card (2 outcome assessment sessions: at 6 and 12 months postpartum)</p> <p>Self-report of incidence and severity of physical and nonphysical abuse, threats of violence, and actual violence experienced</p> <p>Also included was the Index of Spouse</p>	<p>Women presenting at health clinics (in Texas and Virginia) who reported physical and/or sexual assault by a partner during their pregnancy or the year preceding it</p> <p>Screening test was modified Abuse Assessment Screen</p> <p>Intervention group, n = 132</p> <p>Comparison group, n = 67</p> <p>Comparison group was recruited postpartum only while intervention group was recruited while</p>	<p>Abuse outcomes:</p> <p>Intervention group reported less violence than comparison group at 6 and 12 months postintervention on self-report measure (Index of Spouse Abuse)</p> <p>Scores of threat of violence and actual violence (Severity of Violence Against Women Scales) were higher for the comparison group, but not significantly (P = 0.52)</p> <p>Other outcomes: a greater number of participants in the intervention group reported use of safety behaviors.</p>	<p>Preintervention differences between intervention and comparison groups call into question comparability of the groups and use of nonequivalent comparison group. Analysis attempted to control for this by using pretest scores as a covariate in posttest analyses</p> <p>Used pooled sample of both groups for some analyses</p> <p>Measured nonabuse outcomes and correlated these to self-reported incidence and severity of</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
	Abuse and Severity of Violence Against Women Scales	pregnant		abuse Unequal group sizes Self-report outcomes (poor)
McFarlane et al., 1997 (cohort study)	<p>One-on-one sessions with a nurse trained for abuse prevention, choice making, and problem-solving (3 sessions while pregnant)</p> <p>Comparison group received wallet card with information on resources; outcome measures assessed at 6 and 12 months follow-up</p> <p>The focus was relationship status and use of police and other community resources as measured by a self-report survey developed de novo for the study</p> <p>These outcomes were correlated to incidence and severity of abuse (self-report)</p>	<p>Women presenting at health clinics (in Texas and Virginia) who reported physical and/or sexual assault by a partner during their pregnancy or the year preceding it</p> <p>Screening test was modified Abuse Assessment Screen</p> <p>Intervention group, n = 132</p> <p>Comparison group, n = 67</p> <p>Comparison group was recruited postpartum only while intervention group was recruited while pregnant</p>	<p>Between-group differences in police and resource use at baseline led to pretest scores being used as a covariate in posttest analyses</p> <p>Between-group differences in resource use at 12 months but not at 6 months were reported; comparison group more likely to use resources</p> <p>No differences in police use between groups at either 6 or 12 months were reported</p>	<p>Preintervention differences between intervention and comparison groups call into question comparability of the groups and use of nonequivalent comparison group. Analysis attempted to control for this by using pretest scores as a covariate in posttest analyses</p> <p>Used pooled sample of both groups for some analyses</p> <p>Measured nonabuse outcomes and correlated these to self-reported incidence and severity of abuse</p> <p>Unequal group sizes Self-report outcomes (poor)</p>
Cox & Stoltenberg, 1991 (nonrandomized controlled trial)	<p>5-Module structured group counseling over 2 weeks: 3, 2-hour sessions per week for 2 weeks that provided cognitive restructuring therapy, self-assertiveness, and communication skills training, problem-solving training, body awareness, and vocational training</p> <p>Controls received unstructured group counseling for 2 weeks</p>	<p>Women who sought refuge at a women's protective service during the 2 study periods</p> <p>Eligible participants, N = 50</p> <p>Experimental subjects (n = 16):</p>	<p>Within groups: only significant differences for time E1 at pretest to posttest for anxiety, depression, hostility, assertiveness, and self-esteem; for E2 on self-esteem only; and no differences at pretest and posttest for any measures for control group</p> <p>Between groups: only significant difference was on locus of control results</p>	<p>Not randomized</p> <p>Very small sample size</p> <p>Experimental groups run at different times and compared with same control group (ie, E2 compared with historical controls)</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
	<p>counseling for 2 weeks</p> <p>Self-esteem, locus of control, assertiveness, depression, anxiety and hostility, and career maturity, although what outcomes were completed differed by group</p> <p>Participants completed the assessment measures at baseline and on completion of the study</p>	<p>n = 9 at time 1 (E1) and n = 7 at time 2 (E2)</p> <p>Control subjects, n = 6, completed both presurvey and postsurvey</p>	<p>between the control group and the E2 experimental group at pretest only</p>	<p>No abuse outcomes</p> <p>High drop-out rates</p> <p>(poor)</p>
<p>Berk et al., 1986</p> <p>(cohort study)</p>	<p>Over 18 months, wave 1 and wave 2 interviews were conducted with battered women who had and had not stayed at a shelter during the approximately 6 weeks between interviews (mean, 54 days)</p> <p>Evaluated self-reported incidence of violence as measured by the number of new incidents of violence between interviews 1 and 2</p> <p>Also collected data on related outcomes including awareness of community resources</p>	<p>Initial sample of battered women, N = 243</p> <p>Completed both wave 1 and wave 2 interviews, n = 155</p> <p>Of the 155 in the final sample, 37% (n = 57) had 1 shelter stay between interviews 1 and 2</p>	<p>Of the 155 women, 81% (n = 125) experienced no new violence; 14% (n = 22) reported a single incident and 5% (n = 8) reported multiple incidents (maximum of 6)</p> <p>No differences in incidents of violence were reported between those using a shelter and those not</p>	<p>Selection bias (as identified by authors) both to interviews and to intervention</p> <p>Allocation to treatment vs control group was not random</p> <p>While some statistical adjustments were attempted to control for confounders between groups, such as attrition, exposure to risk (ie, days not in shelter), and individual propensity to seek help, it is unclear whether this adequately controls self-selection to treatment bias</p> <p>Approx. 36% attrition</p> <p>Short interval between interviews</p> <p>No follow-up beyond wave 2</p> <p>(poor)</p>

*quality ratings are made according to established criteria (see Appendix 1); Abbreviations: MCTS, Modified Conflict Tactics Scale; RCT, randomized controlled trial

Table 4: Summary of Domestic Violence Intervention Studies - Batterer & Couples Interventions

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
<i>Studies Comparing Treatment Intervention With Nontreatment Controls</i>				
Dunford, 2000 (RCT)	<p>Couples were randomly assigned to 1 of 4 groups:</p> <ul style="list-style-type: none"> (1) men’s group – weekly sessions (1.5 hours) for 6 months followed by monthly sessions for 6 months; based on cognitive-behavioral model and included review and process activities (2) conjoint group – as above but included women (3) rigorous monitoring (RM) group – men were seen for 1 year of monthly individual counseling sessions (1 h) by case manager with FAC, included 6 – week record search and information provided to commanding officer (4) control group – no FAC treatment <p>The control group and all 3 intervention groups included stabilization and safety planning for female partners</p> <p>Outcomes at 1-year follow-up after first 6 months of treatment</p> <ul style="list-style-type: none"> (1) self-report episodic measure of violence (2) MCTS (3) official police and court records for all respondents (4) date of recidivism of violence 	<p>San Diego Navy Experiment</p> <p>Married US Navy couples where active-duty husbands had history of substantiated physical assault of female partners</p> <p>Couples randomized, N = 861 (N = 1722 participants): data analyzed for women, n = 620; and men, n = 619, as follows:</p> <p>Men’s group: women, n = 162; men, n = 160</p> <p>Conjoint group: women, n = 158; men, n = 146</p> <p>Rigorous monitoring group: women, n = 155; men, n = 169</p> <p>Control group: women, n = 145; men, n = 144</p>	<p>Abuse outcomes:</p> <p>No statistically significant differences were found across 4 groups for prevalence of new or continued abuse for either men’s or women’s reports</p> <p>No statistically significant differences were found across groups for new arrests based on official records</p> <p>Rates of arrest recidivism were low across all 4 groups (range, 3%-6%).</p> <p>Time to recidivism across groups did not show statistically significant differences</p> <p>Women’s self-reports of spousal abuse on 1 or more of 3 measures ranged from 18% (physically injured) to 37% (felt endangered)</p> <p>Cumulative completion rate of third and fourth interviews across groups was 78% and 75%, respectively</p>	<p>Large sample size</p> <p>Rigorous design</p> <p>High follow-up rate</p> <p>Outcomes validated by police and court records</p> <p>No blinding</p> <p>(good)</p>
Palmer et al., 1992 (quasi-	<p>10- Week psychoeducational group-treatment program (1.5-hour sessions per week)</p> <p>Control group could be referred elsewhere for</p>	<p>Men referred after court conviction for abusing female partners and court</p>	<p>Abuse outcomes:</p> <p>Recidivism based on police records was higher for controls (31%) than</p>	<p>Randomization procedure unclear</p> <p>No intention-to-treat</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
randomized controlled trial)	<p>treatment</p> <p>Physical violence: self-report and spousal report of violence and police records, personality measure</p> <p>Other: questionnaires and police record check completed at 12-month follow-up</p>	<p>partners and court-mandated to participate in this project</p> <p>Intervention group: randomized, n = 30 completed, n = 21</p> <p>Control group: randomized, n = 29</p>	<p>men in the intervention group (10%; $P < .05$)</p> <p>Low completion rates on self-report questionnaires: 50% for intervention and 61% for control groups</p> <p>For partner-victims, completion rates were 30% for intervention and 11% for control groups</p>	<p>analysis</p> <p>No blinding</p> <p>High attrition rates and loss to follow-up and variable follow-up timing</p> <p>(poor)</p>
Harris et al., 1988 (RCT)	<p>Couples were randomly assigned to 1 of 3 groups as follows:</p> <p>(1) group program - 10, 3-hour sessions involving same-sex peer groups and teaching sessions with both sexes;</p> <p>(2) couple counseling – family systems-based approach with open-ended time frame; and</p> <p>(3) wait-list control group – received treatment after 10 weeks</p> <p>Both men and women completed CTS, self-report measures of mood, behavior, social support, locus of control at preintervention and postintervention (or at 10 weeks for wait-list group). Only women completed the CTS at 6 months to 1 year postintervention</p>	<p>Male-female couples who had contacted a family service agency requesting relationship counseling</p> <p>Eligible couples, N = 81</p> <p>No. randomized (n = 68) as follows:</p> <p>Group program group, n = 23</p> <p>Couple counseling group, n = 35</p> <p>Wait-list control group, n = 10</p>	<p>Abuse outcomes:</p> <p>No statically significant difference in level of violence reported at follow-up by those who had received couple counseling compared with group treatment</p> <p>19 of 20 women still living with their partners reported decrease in violence (29% of the 68)</p> <p>Follow-up rate of 41%</p> <p>Other outcomes:</p> <p>On psychological measures, all participants showed positive changes over time independent of sex or group status</p> <p>Dropout rate during treatment varied significantly across groups; group program, 16%; couple counseling, 67%; and control group, 60%</p>	<p>Low follow-up rate precludes drawing conclusions about effectiveness of interventions</p> <p>Control group only present until 10 weeks</p> <p>No blinding</p> <p>(poor)</p>
Chen et al., 1989 (nonequivalent control group)	<p>“Time Out” included 2 phases:</p> <p>(1) phase 1 involved 4, 2-hour information sessions with decision makers in the criminal justice system</p>	<p>Male convicted batterers</p> <p>Intervention group (court mandated) was</p>	<p>In the treatment program, 63% of participants attended 75% or more of sessions</p> <p>Treatment had no effect on binary</p>	<p>Differences between control and treatment groups on rates of previous criminal charges</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
	<p>(2) phase 2 involved an interactive group format provided during 4, 2-hour sessions</p> <p>The focus was on exploring such issues as self-esteem, roles/expectations, stress reduction, and avoidance techniques</p> <p>2 Measures of recidivism:</p> <p>(1) a binary measure of subsequent charges of domestic violence; and</p> <p>(2) a general measure of recidivism based on an offense scale</p> <p>Timing of outcome assessment unclear</p>	<p>referred by 6 judges in a city with population >200 000, n = 120</p> <p>Control group (nonreferred) was created by systematic sampling from yearly municipal court record, n = 101</p>	<p>measure of recidivism or on general measure of recidivism</p> <p>Since there were insufficient data on domestic violence recidivism, results were based on a recidivism scale outcome developed by the authors</p> <p>For those completing 75%-100% of sessions, a statistically significant effect ($t = -0.223, P < .05$) was found for recidivism reduction (difference between completers and controls). However, differences between completers and noncompleters might account for this rather than exposure to treatment</p>	<p>No blinding</p> <p>Attempted to compensate for attrition by scaling outcomes according to attendance</p> <p>Use of offense scale that had not been validated</p> <p>Attempted to use a model to control for selection bias; not clear that this goal was met</p> <p>Too few charges posttreatment for use of police records, so recidivism scale used</p> <p>(poor)</p>
<p>Dutton, 1986 (cohort study)</p>	<p>4-Month court-mandated therapy that included cognitive behavior modification, anger management, and assertiveness in 3-hour weekly group sessions</p> <p>Physical violence:</p> <p>Use of violence against women and spouses included (1) police information records (official recidivism rate), (2) self-report, and (3) spousal report, both 2 and 3 based on CTS</p> <p>Police records examined for intervention and control group during postarrest period for a mean of 2 years</p> <p>Preintervention and mean of 2-year postintervention CTS scores obtained from subsample of 37 men who completed the treatment and remained married</p>	<p>Men convicted of "wife assault," N = 100</p> <p>Intervention (treatment) group, n = 50</p> <p>Control (nontreatment) group, n = 50</p> <p>All men were measured for police-reported outcomes; only those in the treatment group who remained married were measured on outcomes 2 and 3</p>	<p>Abuse outcomes:</p> <p>Rate of repeated assaults: control group, 20 of 50, and intervention group, 2 of 50 ($P < .001$)</p> <p>Both men's self-reports and spousal self-reports showed significant pre- to postintervention decrease in violence but representing only 74% (n = 37) of intervention group (37% of entire sample)</p>	<p>Few details regarding sampling</p> <p>Not clear if control group historical or concurrent</p> <p>Apparent significant pretreatment differences between the intervention and control groups – controls were deemed unsuitable for treatment</p> <p>No blinding</p> <p>Self-report and spousal data only available for subsample of intervention group</p> <p>Only treatment completers</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
		(n = 37)		were included in the analysis, potentially biasing results to positive treatment effects (poor)
<i>Studies Comparing Different Treatment Interventions Without Nontreatment Controls</i>				
Gondolf, 1999 (cohort study)	<p>4 Well-established batterer programs using a cognitive-behavioral approach.</p> <p>(1) the Pittsburgh system included weekly sessions for 3 months; makes referrals for court-identified mental health or substance abuse problems</p> <p>(2) the Denver system included weekly group sessions for 9 months; comprehensive array of services such as in—house alcohol treatment sessions</p> <p>(3) the Dallas system included discussion-oriented sessions for 3 months; individual counseling and women’s groups available in addition to batterers’ groups</p> <p>(4) the Houston system included didactic program for 6 months with referrals for substance abuse and support for battered women</p> <p>Recidivism, controlling behavior, verbal abuse, threats, legal action, and subjective appraisal of women’s well-being based on reports by batterers’ partners every 3 months for 15 months</p> <p>Much of the interviews at each follow-up period (all conducted by telephone) was based on the CTS</p>	<p>Men recruited from 4 different batterer treatment systems (Pittsburgh, Dallas, Houston, and Denver), with 210 men recruited per site, N = 840</p> <p>The majority of men (82%) were court-mandated to treatment</p> <p>Completed program at 3 months: Pittsburgh, n = 145; Dallas, n = 126; Houston, n = 115; Denver, n = 134</p>	<p>Rates for reassaults were similar across the 4 sites (Pittsburgh, 35%; Denver, 27%; Dallas, 36%; and Houston, 30%) except for lower rate of severe reassault at the Denver site: Pittsburgh (23%), Denver (12%), Dallas (26%), Houston (21%) (statistically significant, P = .008)</p> <p>Rates of repeated reassault and injury, respectively, also lower at Denver site: Pittsburgh (24%; 19%), Denver (11%; 13%), Dallas (24%; 26%), Houston (16%, 21%)</p> <p>Reassault rates lower for 3-month completers in Denver program</p> <p>No statistically significant differences on controlling behavior, verbal abuse, and threats were reported</p> <p>65% of partners interviewed over at least 9 months of follow-up</p>	<p>Prospective study with large sample</p> <p>No nontreatment control</p> <p>Nonrandom subject selection</p> <p>Nonrandom selection of sites and variability between centers on program-related factors outside treatment were significant (including amount of substance abuse counseling, which was greater at the Denver site)</p> <p>Some demographic differences between men at different sites, including differences in race of completers and noncompleters</p> <p>No blinding</p> <p>(poor)</p>
Brannen & Rubin, 1996	<p>2 Groups of 12 weekly 1.5-hour sessions:</p> <p>(1) couples group – cognitive behavioral approach using 2 basic components: instruction</p>	Intact couples who indicated a desire to remain together who	No significant differences between groups after controlling for alcohol abuse on MCTS reasoning and	No nontreatment control group

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
(randomized, noncontrolled trial)	<p>approach using 3 basic components: instruction, behavioral rehearsal, and feedback. Focused on acceptance of responsibility, commitment to change, use of time-outs and other security strategies, anger control techniques, and use of problem-solving process</p> <p>(2) gener-specific group – used Domestic Abuse Project model; primary focus is male partner’s responsibility and modification of batterer’s abusive behavior</p> <p>Conflict resolution ability (based on MCTS)</p> <p>Violence (MCTS)</p> <p>Couple communication (self-report)</p> <p>Marital satisfaction (self-report)</p> <p>Recidivism (based on telephone self-report confirmed by police and probation records)</p> <p>For outcomes related to levels of reasoning and abuse, only data from the abused partners were used</p>	<p>were referred by Texas county court</p> <p>Eligible couples, n = 60</p> <p>Couples agreed to participate, n = 49</p> <p>Couples group, n = 22</p> <p>Gener-specific group, n = 26</p> <p>(It is not clear what happened to the 49th couple)</p> <p>Postintervention data available for analysis, couples, n = 42 (86%):</p> <p>Couples group (n = 22);</p> <p>Gender-specific group (n = 20)</p>	<p>psychological abuse subscales, communication, and marital satisfaction</p> <p>No significant differences between groups on physical abuse MCTS subscales except couples group counseling was more effective where there was a history of alcohol abuse</p> <p>At 6-month follow-up, only 53% (26/49) of original sample available</p> <p>No significant difference in recidivism (couples group, 8.3% and gener-specific group, 7.1%)</p>	<p>Intact couples without a history of severe abuse</p> <p>Lack of blinding</p> <p>Although 86% completed treatment, only 53% were available at 6 months (recidivism outcome only)</p> <p>Small cell sizes for alcohol analysis</p> <p>(poor)</p>
Dobash, 1996 (cohort study)	<p>2 Education programs for violent men were compared as 1 group with a second group of 3 OCJ interventions (probation, court, or prison)</p> <p>Education programs include CHANGE (former Central Region of Scotland) and LDVPP (Edinburgh); both involve structured cognitive-behavioral weekly group work for 6 to 7 months</p> <p>Emphasis is on offender taking responsibility for change</p> <p>Rates of violence, injuries, behavior, and quality of life, although no details of standardized measures</p>	<p>Men convicted of offenses that included violence against their partners between 1991 and 1994 in Edinburgh and former Central Region, Scotland, N = 932</p> <p>Of these 932,313 were traced, and 122 men and 134 women</p>	<p>At 12 months follow-up, 7% of men in the education group and 10% in the OCJ convicted of offenses involving violence against partners, based on court records</p> <p>Partners’ questionnaires indicated that rate of violent incidents against partners was lower in education group than OCJ at 3 months (30% vs 62%) and at 12 months (33% vs 75%)</p> <p>Also difference in frequency of incidents between education and OCJ</p>	<p>Potential for selection bias</p> <p>Some baseline differences between groups</p> <p>No blinding</p> <p>Insufficient detail about actual results</p> <p>No statistical comparisons</p> <p>Only 34% of cases traced and very small number of participants at 12 months</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
	<p>were provided</p> <p>Evaluation involved use of court records, partner reports</p> <p>Information gathered after criminal justice sanction, at 3 and 12 months follow-up</p> <p>Recidivism based on court records and partners' reports and controlling behavior and quality of life based on partners' reports</p>	<p>were analyzed, as follows:</p> <p>(1) Education programs</p> <p>Lothian Domestic Violence probation Project (LDVPP): men, n = 25 and women, n = 22</p> <p>CHANGE: men, n = 26 and women n = 25</p> <p>(2) Other criminal justice interventions (OCJ):</p> <p>Probation: men, n = 19 and women, n = 16</p> <p>Court: men, n = 41 and women, n = 64</p> <p>Prison: men, n = 11 and women, n = 7</p>	<p>incidents between education and OCJ groups – immediately after criminal sanction, rates of 5 or more incidents was 26% (education) vs 31% (OCJ); at 3 months rates were 0% vs 16%, and at 12 months 7% vs 37%, respectively</p> <p>Partners of men in education group reported less threatening behavior and improved quality of life compared with OCJ group</p>	<p>follow-up</p> <p>(poor)</p>
<p>Saunders, 1996 (quasi-randomized noncontrolled trial)</p>	<p>Groups attended 20 weekly sessions of 2.5 hours using 1 of the following approaches:</p> <p>(1) feminist – cognitive-behavioral treatment (FCBT) approach – combined skills-training, gender role resocialization in structured format that included lectures, role-play, and homework; or</p> <p>(2) process-psychodynamic treatment (PPT) approach – supportive, nondidactic group relationships. Focus was on building trust, sense of safety, and exploring childhood trauma</p>	<p>Men accepted for treatment at a family counseling agency who had been referred by deferred prosecution program (17%), probation department following prosecution (59%) or other including agencies, friends, family, and self,</p>	<p>Of men who completed treatment (n = 136), defined as attending 16 of 20 sessions, 79% (n = 107) of their partners were found and agreed to participate in follow-up assessment</p> <p>Attrition rate of 38% for FCBT group and 24% for PPT</p> <p>Average length of follow-up was 25 months (range, 18-54 months); 20 (15%) of the 136 were lost to follow-up</p>	<p>Audiotape recordings were made to ensure integrity of treatments</p> <p>No nontreatment control group, although FCBT was similar to usual care at the center</p> <p>Attrition and loss to follow-up rates were moderate for this type of study</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
	<p>Recidivism rates primarily based on women's reports supplemented by batterer's reports and arrest records. Reports based on expanded version of CTS</p> <p>Women also assessed on self-report measures of fear, conflict resolution, and general changes, while men were assessed on personality characteristics, relationship satisfaction, self-esteem, adjustment, and other related measures</p> <p>Data were collected pre- and posttreatment and at least once during the 54 months following treatment</p>	<p>N = 218</p> <p>Began treatment, n = 178</p> <p>Completed program, n = 136</p> <p>Participated in follow-up, n = 107</p>	<p>Did not report within-groups pre- and postresults</p> <p>No differences between groups on recidivism rates based on women's reports, arrests, and those based on 1 or more of women's reports, arrests, and men's reports</p> <p>No differences between groups in general changes, fear, or result of disagreement</p> <p>Personality characteristics and disorders interacted with type of treatment; men with antisocial traits had decreased recidivism if they participated in group with FCBT approach. Men with dependent traits had better outcomes if in group with PPT approach</p>	<p>Randomization process not followed</p> <p>Some of measures have unknown psychometric properties</p> <p>No blinding</p> <p>No intention-to-treat analysis</p> <p>Post-hoc analysis for some tests of interaction</p> <p>(fair)</p>
<p>Edelson & Syers, 1991 (randomized, noncontrolled trial)</p>	<p>3 Group-treatment models provided in 2 intensities:</p> <p>(1) 12 weekly 2 hour 15 minute sessions (n = 40); and</p> <p>(2) 16 weeks of twice weekly 2 hour 15 minute sessions (n = 30)</p> <p>Models are as follows;</p> <p>(1) self-help model-minimal structure with similar approach to Alcoholics Anonymous, with former batterer as facilitator (n = 19);</p> <p>(2) education model – use of lectures, videotapes, role-playing, homework, with professional facilitator (n = 22); and</p> <p>(3) combined model – structured information and focus on personal issues (n = 29)</p>	<p>Male batterers, N = 283</p> <p>Considered compliant with treatment, n = 153</p> <p>Available for follow-up and complete analysis, 70/153</p>	<p>Analyses included only those men who attended 80% or more of group sessions</p> <p>No statically significant differences at 18 months in men reported as violent across groups; self-help (21.1%), education (36.4%), and combined (37.9%)</p> <p>Group intensity and model did not predict postgroup violence; involvement with courts and lack of previous mental health treatment were associated with decreased likelihood of ongoing use of violence</p>	<p>No nontreatment control</p> <p>Quasi-random approach to intensity allocation</p> <p>Differences in mental health treatment status, use of threats to leave partner and exposure to childhood abuse were found between subjects who remained in study and those lost to follow-up</p> <p>No psychometric properties for measures</p> <p>No blinding</p> <p>No intention-to-treat</p>

Study (design)	Intervention & Outcomes	Participants	Results	Strengths/Weaknesses (quality rating)*
	<p>Self-reports of men at intake, closing, 6, and 18 months follow-up; partners' self-reports of 6 and 18 months</p> <p>Reports at intake and closing completed by group counselor during interview with batterer</p> <p>Questionnaires at 6 and 18 month follow-up times via telephone survey</p> <p>Questions similar to CTS</p> <p>Men's self-reports used only when partner reports not available</p>			<p>analysis</p> <p>Very high attrition; 54% (153/283) completed treatment, 25% (70/283) available at 18-month follow-up</p> <p>(poor)</p>
<i>Systematic Reviews of Treatment Interventions That Include Batterers</i>				
<p>Davis & Taylor, 1999 (review)</p>	<p>See specific studies: quasi-experimental and RCTs</p> <p>Reviews effectiveness of batterer programs that examined reduction of violence</p> <p>Synthesis of findings includes only studies with a comparison group</p> <p>Used effect size on proportion of repeat violence based on police records as indicator of treatment effect</p>	<p>Synthesis of 6 studies included 4 quasi-experimental and 2 randomized trials; effect sizes determined for 5 studies (1 quasi-experimental was omitted)</p>	<p>The effect sizes for 5 studies included in final analysis were as follows:</p> <p>Quasi-experimental studies: Dutton, 1986, 0.946; Chen et al, 1989, 0.193; and Dobash et al, 1996. 0.108 (average, 0.416)</p> <p>Randomized trials: Palmer et al, 1992, 0.537; and Davis and Taylor, 1997, 0.287 (average 0.412)</p>	<p>Search strategies not described</p> <p>Examined methodologic quality of studies comprehensively</p> <p>(fair)</p>

*quality ratings are made according to established criteria (see Appendix 1); Abbreviation: MCTS, Modified Conflict Tactics Scale; RCT, randomized controlled trial.

Table 5: Canadian Task Force Recommendations

Recommendation Table: Prevention & Treatment of Domestic Violence			
Maneuver	Effectiveness	Levels of evidence* <refs>	Recommendation*
<p>Screening</p> <p><i>Women (pregnant or non-pregnant)</i></p>	Validated tools exist to detect violence but there is lack of a demonstrated link between screening and the reduction of violence outcomes	Studies assessing psychometric properties of tools available, but no studies assessed screening to intervention outcomes.	<p>The CTF concludes that there is insufficient evidence to recommend for or against routine screening for violence against pregnant or non-pregnant women (I Recommendation).*</p> <p><i>*This is distinct from the need for clinicians to include questions about exposure to domestic violence as part of their diagnostic assessment of women. This information is important in caring for the patient, and may influence assessment and treatment of other health problems.</i></p>
<i>Men</i>	There is a lack of empirical studies.	No studies available.	The CTF concludes that there is insufficient evidence to recommend for or against primary care screening of men for domestic violence (I Recommendation).
<p>Interventions for Pregnant & Non-Pregnant Women</p> <p>Primary Care Counseling</p>	There is a lack of empirical studies.	No studies available.	The CTF concludes that there is insufficient evidence to recommend for or against counseling of abused women by the primary care clinicians, although decisions to do so may be made by the clinician and patient on other grounds (I Recommendation).
Referral to Shelters	There is a lack of empirical studies.	No studies available.	The CTF concludes that there is insufficient evidence to recommend for or against referral to shelters, although decisions to do so may be made by the clinician and patient on other grounds (I Recommendation).

Recommendation Table: Prevention & Treatment of Domestic Violence			
Maneuver	Effectiveness	Levels of evidence* <refs>	Recommendation*
Referral to Post-Shelter Advocacy Counseling	Among women who had spent at least 1 night in a shelter, an advocacy services program led to decreased rates of reabuse and improved quality of life during the next two years.	Level I, fair <Sullivan & Bybee, 1999>	The CTF concludes that there is fair evidence to refer women who have spent at least one night in a shelter to a structured program of advocacy services (B Recommendation)
Referral to Personal and Vocational Counseling	There is a lack of empirical studies.	No studies available.	The CTF concludes that there is insufficient evidence to recommend for or against referral to personal or vocational counseling, although decisions to do so may be made by the clinician and patient on other grounds (I Recommendation).
<i>Batterer/Couples Interventions</i>	1 good study showed no difference between treatment and controls, but generalizability is low. 8 other studies and one review were of lesser quality and showed mixed results. Few of these studies had true controls - most compared different treatment strategies.	Level 1, good <Dunford, 2000> Levels I <Harris, 1988, Edelson & Syers, 1991, Brannen & Rubin, 1996>, II-1 <Dutton, 1986, Chen et al., 1989, Palmer et al., 1992, Saunders, 1996>, II-2 <Dobash, 1996, Gondolf, 1999>, all poor One fair systematic review <Davis & Taylor, 1999>	The CTF concludes that there is conflicting evidence regarding the effectiveness of batterer interventions (with or without partner participation) in reducing rates of further domestic violence (C Recommendation).

*See Appendix 1 for definitions of the levels of evidence, quality ratings and grades of recommendations.

Appendix 1 (see note on next page)
Canadian Task Force on Preventive Health Care
Levels of Evidence and Grades of Recommendations

Levels of Evidence

A. Research design rating:

- I** Evidence from at least one randomized controlled trial.
- II-1** Evidence from controlled trial(s) without randomization.
- II-2** Evidence from cohort or case–control analytic studies, preferably from more than one centre or research group.
- II-3** Evidence from comparisons between times or places with or without the intervention; dramatic results from uncontrolled studies could be included here.
- III** Opinions of respected authorities, based on clinical experience; descriptive studies or reports of expert committees.

B. Quality (internal validity) rating (see Harris et al., 2001):

- Good** A study that meets all design- specific criteria* well.
- Fair** A study that does not meet (or it is not clear that it meets) at least one design-specific criterion* but has no known “fatal flaw”.
- Poor** A study that has at least one design-specific* “fatal flaw”, or an accumulation of lesser flaws to the extent that the results of the study are not deemed able to inform recommendations.

*General design specific criteria by study type are outlined in Harris et al., 2001. Inclusion/exclusion criteria specific to a review topic are detailed in the Methods section of the individual review.

Grades of Recommendations for Specific Clinical Preventive Actions

- A** The CTF concludes that there is **good** evidence to recommend the clinical preventive action.
 - B** The CTF concludes that there is **fair** evidence to recommend the clinical preventive action.
 - C** The CTF concludes that the existing evidence is **conflicting** and does not allow making a recommendation for or use of the clinical preventive action, however other factors may influence decision-making.
 - D** The CTF concludes that there is **fair** evidence to recommend against the clinical preventive action.
 - E** The CTF concludes that there is **good** evidence to recommend against the clinical preventive action.
-
- I** The CTF concludes that there is **insufficient** evidence (in quantity and/or quality) to make a recommendation, however other factors may influence decision-making.
-

The CTF recognizes that in many cases patient specific factors need to be considered and discussed, such as the value the patient places on the clinical preventive action; its possible positive and negative outcomes; and the context and/or personal circumstances of the patient (medical and other). In certain circumstances where the evidence is complex, conflicting or insufficient, a more detailed discussion may be required.

Appendix 1, cont.

Recent Updates to CTF Methodology:

In 2001, the Task Force updated its methods to include consideration of the following:

- 1) Selecting studies for review: two reviewers are now involved in the process of getting from the results of full literature searches down to the pool of papers to be reviewed. Explicit inclusion and exclusion criteria are developed by the review team *a priori*, and refined via input by the CTF during initial presentation of the analytic framework.
- 2) Rating the internal validity of individual studies: while the importance of research design remains the main basis by which to assess strength of evidence, the Task Force also recognizes that not all studies within a research design have equal internal validity. To more clearly assess the internal validity of individual studies within research designs, the CTF adopted design-specific criteria for assessing the internal validity of individual studies. These criteria provide general guidelines for categorizing studies into one of three internal validity categories: “good,” “fair,” and “poor”. Thus all individual studies receive two codes: one for research design, and one (“good, fair, poor”) for internal validity within its design (see Harris et al., 2001). Additional criteria specific to the evidence for a review topic may be identified by the topic review team, and these are detailed in the methods section of the review.
- 3) Double review of key studies: reflecting the evolution of the science of systematic reviews in general, the Task Force has adopted as its standard that two reviewers (normally from among the review’s primary authors) will independently critically appraise studies selected for review. The standard is double review of all studies, however in cases where this is not deemed feasible or necessary (i.e. if there is a large number of poor quality papers that will not impact recommendations), an *a priori* decision may be made, with the approval of the Task Force, to double-review only the key evidence papers - i.e., those on which the recommendations are likely to be based. This is indicated in the Methods section of the review.
- 4) Grades of recommendations: in order to differentiate situations where evidence exists but is conflicting, versus those where there is no evidence (or no evidence of sufficient quality) to appraise (formerly all categorized as “C” grade), a new category of recommendation, “I Recommendation”, has been added to the CTF hierarchy. The new scheme reserves “C Recommendations” for those cases where evidence exists, was appraised, and found to be conflicting, whereas “I Recommendation” will express the conclusion by the CTF that the evidence was insufficient in quality or quantity to allow a recommendation to be made. In addition, the importance of a communication process between the patient and provider to discuss the evidence, potential risks and benefits of the maneuver under consideration, and non-evidence factors (i.e. personal values, context, etc.) has been emphasized.