Effectiveness of Primary Prevention Interventions for Intimate Partner Violence

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EXECUTIVE SUMMARY

The Canadian Forces (CF) has a number of programs to promote the health and well-being of families of CF members. These include programs to foster community cohesion, assist in the prevention of family breakdown, help families in distress, and break the cycle of intimate partner violence. In order to inform evidence-based practice, the Department of National Defence (DND) has requested an in-depth review of the literature and its analysis, interpretation and resulting recommendations for the primary prevention of intimate partner violence (IPV).

According to national survey data, 5-year rates of spousal violence among married and common-law partners was 9% in those aged 15-24 and 7% in the 25-34 year age group. Rates of family violence in CF populations are unknown, although it has been argued that there is little reason to believe that rates would be lower than those in the general population. Risk factors for IPV include a complex web of intrapersonal, interpersonal and sociocultural factors. Actual causal evidence for IPV risk factors is weak when assessed by epidemiological criteria and no single theory appears to adequately account for the multidimensional nature of IPV. Little is known about risk factors for IPV in military populations.

The CF's family violence policy addresses the military's prevention and response to this issue. Program components include a CF Family Violence Advisory Committee to oversee all CF activities related to family violence, as well as a family crisis team for each base to serve as a focal point for coordinating education and interventions.

A literature review strategy was developed to search for existing systematic reviews and relevant primary studies to answer the following question:

> *What is the current state of the scientific literature supporting effective interventions for the primary prevention of intimate partner violence in women?*

Searches were conducted of multiple guideline and review databases, family violence websites and six science and social science indexes (Medline, Embase, PsycInfo, CINAHL, Sociological Abstracts, and ASSIA). Supplemental searches of studies focused on military populations were also conducted. Potentially relevant publications were retrieved, and studies meeting specified inclusion criteria were critically appraised with an existing quality assessment tool. Of the over 3,000 citations that were identified as potentially relevant, only five primary studies met the inclusion criteria. Publications describing interventions focused on non-IPV types of family violence or the secondary or tertiary prevention of IPV. Many others were commentaries or discussion papers describing the lack of information on the effectiveness of primary prevention interventions. A number of organizations have identified a set of best practice recommendations for IPV prevention, although provide little if any supporting evaluative evidence.

Three of the five included primary studies addressed media interventions. One was particularly comprehensive, used a variety of media, trained health care professionals to recognize and respond to IPV, and linked its message to previous campaigns. Despite this, little difference on attitudes and intentions was observed in the intervention county. In another study, extensive preparations for a series of radio serial ads were thwarted by reliance on voluntary airtime by radio stations. The third study attempted to influence the manner in which domestic homicides were portrayed in the print media. Differences were observed although with the lack of a comparison community it is unclear whether observed changes may have occurred for other reasons and what impact the changes would have on community attitudes or behaviours. For the two remaining studies, neither the use of family home visiting nor education sessions for divorcing couples showed a reduction in rates of IPV.

Considering the comprehensiveness of the search and the consistency of the findings with the content of recent commentaries and discussion papers, the lack of evidence for IPV primary prevention appears to be an accurate reflection of the state of current knowledge. Compared with other types of abuse such as child maltreatment, IPV is a much newer area of investigation and research. Information on risk factors and associated causal pathways is incomplete, which hampers the development of interventions. The risk factors that have been identified do not appear easily modifiable, are rooted in the values and attitudes of the overall community from which military members are recruited, and are typically initiated in childhood. Therefore, an adult population may not be the most appropriate age group to target primary prevention interventions. Most primary prevention interventions encountered in the literature are targeting grade and high school aged children.

Decision making regarding interventions is challenging when faced with research that is underdeveloped, inadequate or incomplete. Based on expert consensus, the U.S. Council on Violence Against Women developed a *Toolkit* that provides a number of recommendations for IPV prevention in military settings. These appear to be reflected in current CF policy. The U.S. Centers for Disease Control and Prevention identify a comprehensive public health approach to IPV prevention that includes:

1. Definition and measurement
2. Identification of risk and protection factors and development of interventions based on these factors
3. Evaluation of public health interventions to determine their impact
4. Dissemination of promising strategies to ensure their widespread adoption.

While the focus of this review has been on assessing the later steps, the critically important preceding steps have not been systematically addressed. For the Canadian military population, basic descriptive epidemiology on the incidence and prevalence of IPV in the CF is unknown. Similarly, the extent of modifiable risk factors for IPV in this population has not been assessed. Some of this work has begun in the US forces but it is not clear whether American data is entirely relevant for the CF. In addition, even if

effective intervention data became available from other community or military populations, appropriate tailoring of those interventions will need to occur that takes into consideration the social and psychological CF context. Greater descriptive information on the nature and context of IPV in Canadian military families is needed to inform the development and evaluation of IPV interventions. Collecting this information as part of the planned Relationship Study is therefore a positive step. Due to the state of the current literature, any primary prevention interventions for IPV should be viewed as research initiatives and therefore be thoroughly documented, evaluated and their findings published.

It is therefore recommended that:

1. In the absence of evidence for effective primary prevention interventions for IPV, that interventions focus on secondary and tertiary prevention. Evaluations of these interventions should be conducted to maximize their impact.
2. Information on the occurrence of IPV in the CF population and risk and protection factors associated with IPV be collected.
3. Based on the findings from 2 above and in collaboration with civilian researchers, that theory and evidence based interventions for the primary prevention of IPV be developed, implemented and thoroughly evaluated.

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INTRODUCTION

The Canadian Forces (CF) has a number of programs to promote the health and well-being of families of CF members. These include programs to foster community cohesion, assist in the prevention of family breakdown, help families in distress, and break the cycle of intimate partner violence. In order to inform evidence-based practice, the Department of National Defence (DND) has requested an in-depth review of the literature and its analysis, interpretation and resulting recommendations for the primary prevention of intimate partner violence (IPV).

DEFINITIONS

Intimate Partner Violence

The U.S. Centers for Disease Control and Prevention's National Center for Injury Prevention and Control provides the following relevant definitions:[1]

> *Intimate Partner Violence (IPV):* generally refers to physical, psychological, or sexual violence between adults in an intimate relationship. IPV includes several related terms including domestic violence, marital violence, spouse abuse, dating violence, courtship violence and couple violence.
>
> *Domestic Violence:* is a subset of IPV that only includes violence occurring between married and cohabitating individuals.

Levels of Prevention

There are three conceptual points of intervention to reduce IPV (see Table 1).[2] Primary prevention is focussed on reducing the *incidence* or occurrence of violent behaviour before it starts. In contrast, secondary prevention efforts attempt to detect situations where violence is occurring earlier than it might otherwise be identified. An example is screening in health care settings to identify women who may have been abused. Tertiary prevention includes interventions that attempt to reduce the impact of violence once it has been recognized or reported. This includes counselling and other health care responses to victims, as well as counselling, offender programs and other judicial responses for perpetrators. The specific focus in this paper is on the evidence for *primary prevention* type interventions.

Table 1: Levels of Prevention for Intimate Partner Violence

Prevention Level	Focus	Examples of Possible Interventions
Primary	Reduce incidence of violent behaviour	Shift social norms through media messages, peer mediation, education
Secondary	Early detection of women experiencing abuse	Screening of women in health care settings to identify women in abusive situations
Tertiary	"Treatment" of abusive situations.	For women, counselling, shelters, health care. For men, counselling, offender programs, judicial responses.

THE EXTENT OF INTIMATE PARTNER VIOLENCE

General Populations

Statistics Canada publishes an annual report on family violence in Canada.[3] According to national survey data, 5-year rates of spousal violence among married and common-law partners was 9% in those aged 15-24 and 7% in the 25-34 year age group. Based on reporting from a subset of police departments representing just over half of the national volume of crime, approximately one quarter (27%) of all victims of violent crime were victims of family violence. Of these, 85% of victims were female.[3] As noted in a paper by DeKeseredy and Dunn, rates of IPV can vary depending upon the narrowness of the definition that is applied and whether selective reporting occurs such as in reports to police.[4]

Military Populations

Rates of family violence in CF populations are unknown, although it has been argued that there is little reason to believe that rates would be lower than those in the general population.[5] In a report prepared for DND, Dr. Deborah Harrison argues that there are a number of possible reasons why IPV may be more likely in military populations:

- Absences and relocations – many deployments stressful
- Training in aggression
- Authoritarian and hierarchical nature of military organization
- Social isolation of spouses/partners
- Excessive alcohol consumption
- Financial problems
- Conservative attitudes to gender relations
- Male bonding practices.[5]

A systematic review of child maltreatment and spouse abuse in military populations published in 2006 similarly suggested that violence may be more common in military families due to higher overall stress levels associated with military lifestyle.[6] However, the authors also noted that military families might have less violence than the general population since they are an employed group, and discovery of fairly severe problems such as criminal conduct, mental health problems, and alcohol and drug abuse lead to disciplinary action or release. Despite their comprehensive search, the authors of the review only identified three studies that compared spouse abuse in military and civilian populations. They note that in all three, the military populations had higher rates of aggression or violence. A major limitation of their review is that it paid little attention to the quality of the studies including their design and control of bias[i] and confounding[ii]. As such, the studies included in their review were retrieved and are described in the following paragraphs.

The earliest of the published studies compares conflict in military and civilian couples attending marital therapy.[7] These are therefore highly selected couples that are not representative of couples in these populations. In addition, only an indirect measure of physical abuse was reported, but how its measurement was not well described. The authors merely state that it was significantly higher for women in military couples.

A study by Cronin interviewed American college students attending university in Europe whose parents were stationed there either as military members or as civilians working for the U.S. Department of Defence (DOD).[8] Students were asked to complete a questionnaire on the extent that one or both parents behaved toward the other for nine aggressive or violent behaviours. Students from military families reported higher frequencies of all nine behaviours compared with students from civilian families. Statistical significance was reached for slapping or hair pulling; throwing things at or toward the other parent; and pushing down or into wall. The main challenge with interpreting this study is the generalizability of both populations. It is not clear to what extent the military population posted in Europe at that time is representative of the overall U.S. military. It is unlikely that a civilian population working in Europe for DOD is representative of the general U.S. population. The authors did not provide a breakdown of the demographic characteristics of the two student populations and their families so it is difficult to assess this aspect of the two populations.

The third study compared samples of U.S. Army and civilian populations for spousal aggression as assessed by survey.[9] While conducted at different times, the same instrument for assessing aggression was used in both populations. Most of the differences

[i] Bias: is a type of systematic error due to some aspect of the design or conduct of the study. There are many types of bias. For example, bias could be introduced in a comparison of IPV rates in military and civilian populations if the occurrence of IPV was ascertained in different manners between the two populations.

[ii] Confounding: is a type of error that can distort the measurement of an apparent association between a risk factor and an outcome due to the presence of an additional variable that is associated with both. For example, younger age appears to be a risk factor for IPV. If comparing rates of IPV between military and civilian populations, since the military population is younger, it will appear to have higher rates of IPV unless the confounding effect of age is controlled for.

in rates of aggression between the populations were reduced after controlling for age and race, although military population rates remained slightly higher. Of some importance, the authors were unable to adjust for any differences in family income and were only able to crudely control for this by restricting the civilian population to those with employment.

These three studies have substantial methodological issues and therefore shed little light on the issue of whether IPV is a substantially greater issue in the military community compared to the general population. Even if these studies were of better quality, since they were all conducted with U.S. populations, the question of how their findings apply to the Canadian context would remain.

An additional study was retrieved that examined rates of spousal violence in the U.S. Army by the various combinations of military and civilian pairings of the male and female spousal partners.[10] Across the Army, a male military member and a civilian female spouse is the most common combination and account for the most cases of reported spousal abuse. However, when rates of female partner abuse were examined by pairing type, it was female military members married to a civilian male partner that had the highest rates of reported abuse. The investigators do not appear to have controlled for socio-demographic factors such as race, education, and rank, which may have accounted for some of the observed differences. It is also unclear whether a difference in reporting by military and civilian female spouses could account for the observed differences. Nevertheless, this study suggests that it should not be assumed that female military members are not subject to abuse.

RISK FACTORS FOR INTIMATE PARTNER VIOLENCE

Table 2 reproduces a summary table of identified risk factors for IPV published in a report from the Canadian Task Force on Preventive Health Care.[11] They clustered risk factors by female partner factors, male partner factors and couple factors. A recent review provided a somewhat different grouping although the factors themselves are similar:

- Intrapersonal: emotional abuse and forced sex; accepting attitudes condoning IPV; illicit drug use; traditional sex-role attitudes; anger and hostility; alcohol use; depression; and life and work stress.
- Interpersonal: relationship dissatisfaction and history of IPV
- Sociocultural: low occupational status and income; unemployment; job dissatisfaction; no religious affiliation; social isolation; greater numbers of dependent children.[12]

Some research has also occurred regarding military-specific risk factors. Particular interest has been expressed regarding the stress of deployments, which was heightened following the cluster of post-deployment homicides at Fort Bragg in the U.S. The subsequent Epidemiological Consultation Report noted that:

- Known marital distress was present in all cases, but there was no record of the soldiers accessing the military's counseling services
- Soldiers, their spouses and others believe that seeking services is "detrimental and often terminal, either directly or indirectly, to a soldier's career"
- Army's current model of delivering services for domestic violence is counterproductive because current attitudes discourage early identification and therapeutic engagement – "soldiers and families need earlier, more accessible, and career-safe behavioural health care."[13]

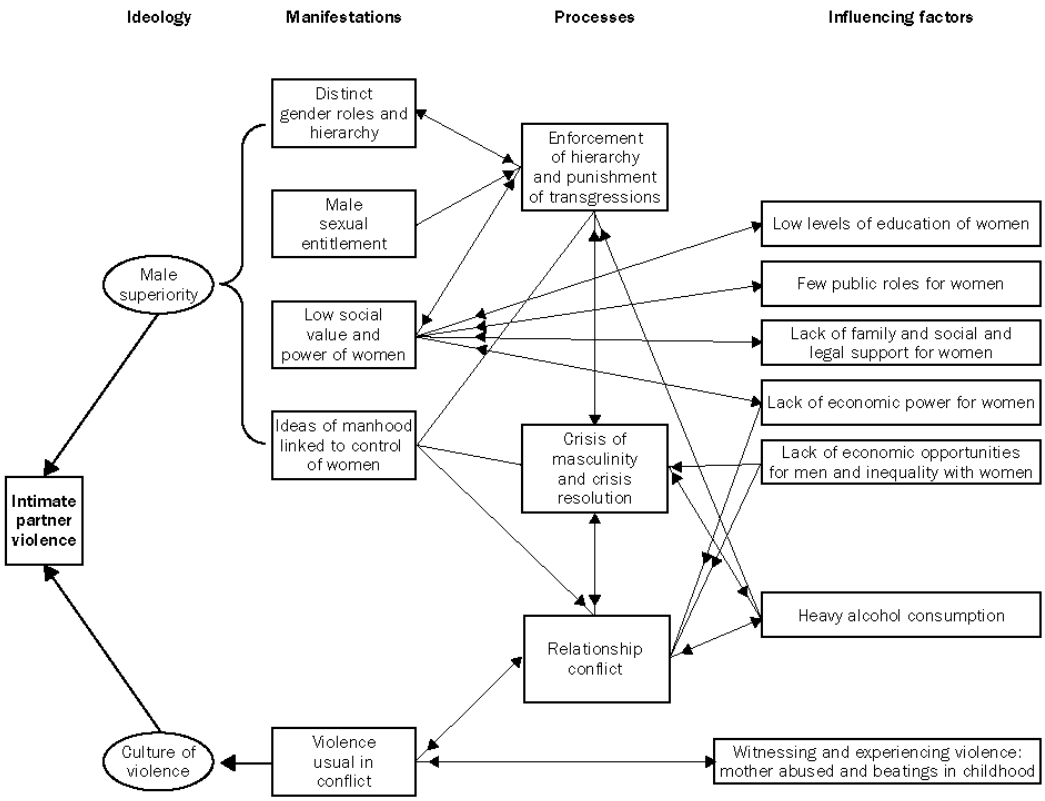
A study by McCarroll et al. examined the occurrence of IPV with deployment of U.S. Army soldiers to Bosnia. They found that deployment itself did not seem to increase the occurrence of IPV, but rather the most important predictors of post-deployment violence was a history of pre-deployment IPV and the younger age of the soldier.[14]

In looking at the many risk factors identified for IPV, it is important to attempt to distinguish those that may be *associated* with IPV versus those that *cause* IPV. The difference is that primary prevention efforts need to focus on causal factors since modifying factors that are merely associated will not likely improve outcomes. Prevention efforts also need to be guided by understanding of how causal risk factors interact to produce adverse outcomes. There appear to be current limitations in both these areas for IPV.

Actual causal evidence for risk factors is weak when assessed by epidemiological criteria[iii] and reflecting the social context of violence, risk factors can vary between cultures.[16] While there are multiple theories proposed for IPV including attachment theory, resource theory, and feminist theory, "No single theory appears to adequately account for the multidimensional nature of IPV. Accordingly, the field has moved to consider comprehensive ecological theories that address potential etiological variables at various levels of analysis."[12] For example, a discussion paper by Jewkes presents the following complex causal model for IPV risk factors:

[iii] Epidemiological criteria for causation include: strength of association (i.e. magnitude of the observed association between risk factor and outcome); consistency with known or postulated mechanism; consistency with other investigations; time sequence (cause precedes the effect); dose-response (the greater the exposure to a risk factor, typically the greater the occurrence of a condition).[15]

Figure 1: Causes of Intimate Partner Violence



Source: Jewkes R. Intimate partner violence: causes and prevention. Lancet 2002; 359: 1423-1429.

Table 2: Risk Factors for Violence Against Women

Female risk indicators (of being a victim)	Pregnant female risk indicators (of being a victim)	Male risk indicators (of being an abuser)	"Couple indicators" (that female will be abused)
• Witness abuse during childhood • Demographic factors (age <25 yrs, low SES, less than high school education, unemployment) • Having a former partner; or currently separated or divorced • History of behaviour problems (childhood, adolescence) • Growing up without both or either parent • Growing up with family conflict • Low IQ • Co-morbid health conditions (e.g. obstetric, gynecologic symptoms and substance abuse)	• Having an unwanted pregnancy • Demographics (including being unmarried, less well-educated and younger) • Number of stressful life events • Increased parity	• Alcohol and/or drug abuse (esp binge drinking) • Demographic factors (including younger age, low SES, less than high school education) • Witnessing abuse during childhood • Unemployment • Mental health or previous behavioural problems (e.g. depressive symptoms, behavioural problems in childhood) • Use of violence towards children • Growing up without both parents • Sexual aggression toward female spouse	• Marital conflict • Low SES • Verbal aggression • Status other than married (including common law) • Age difference >10 years • Religious incompatibility

Source: Canadian Task Force on Preventive Health Care. Prevention and treatment of violence against women: systematic review and recommendations. Technical report. 2001.
SES: socioeconomic status; IQ: intelligence quotient;

EXISTING BEST PRACTICE RECOMMENDATIONS

A number of primary prevention-related "best practice" recommendations were included in the background materials provided by DND for this project, as well as encountered during the literature search. These will be briefly summarized.

CF Family Violence Environmental Scan Project

Early education and awareness is vital in decreasing the prevalence of family violence within the CF and for building a culture of non-violence. Recommendations include:

- Increasing the emphasis on the youth component in family violence programming by introducing a gender-sensitivity component
- Increased efforts to educate individuals concerning unacceptable nature of sexism, sexist remarks and misogynist practices
- All preventive strategies include an analysis of gender dynamics as it applies to each determinant of health
- Identification of protective and risk factors for CF families to be addressed (factors not identified)
- Introducing a new parent support program for first time parents including home visitations by nurses, social workers and primary prevention programming including parent education and training
- Introduce a relationship enhancement program similar to the PREP program
- Increase outreach to CF families since only a third live in PMQs
- Distribute newsletters to all CF families living on and surrounding the base/wing and include articles concerning issues in family violence and emergency shelter/contact information
- Increase the number of workshops from one per year that are dedicated to issues in family violence that is provided for MFRC staff/volunteer, CF members and CF families
- Increase the CF's family awareness of resources provided through local MFRCs by providing newly arrived CF families with information/welcome packages. MFRCs could also provide information sessions to spouses of military members on the entirety of military life including important issues such as family violence; use of message boards advertising for family violence/shelters/hotlines.

YWCA Week Without Violence Organizers Kit

The kit includes suggested activities and resources for several different types of inter-personal violence. For confronting violence against women, the kit suggests:

- Healthy relationship workshop
- Open house/information displays
- Anger focus workshop
- Clothesline project (participants draw or paint their experience of violence or vision of peace and hang the drawings on a clothesline in a public space)

Military Family Services Program Symposium – March 2005

Many tools and resources described in this package. With respect to public education, key messages include:

- Family violence is everyone's concern. It is not a private matter. We all share responsibility for eliminating family violence.
- You can make a difference. This is a call to action. We can make things better for those people living with abuse.
- You never hurt the one you love.

National Advisory Council on Violence Against Women (U.S.)

The Advisory Council has prepared a multi-chaptered on-line reference for violence prevention.[17] The recommendations contained in the *Toolkit* were reviewed by numerous experts in the fields of sexual assault, domestic violence, and stalking. The *Toolkit* is comprised of 16 chapters of which one specifically addresses the U.S. military. In reviewing the 13 sets of recommendations, most are related to secondary or tertiary prevention with few falling into the primary prevention category. Those that might be considered in this grouping include:

- Expanding efforts to ensure that trainers and commanders respond to disparaging and derogatory comments, chants and cadences to race, gender or sexuality in a way that reinforces that such behaviour is unacceptable
- Continue to conduct training on violence against women in consultation with experts from the military and civilian communities for all levels of military personnel.
- Design training programs to increase service members' understanding of the incidence, prevalence, and impact of violence against women. Include information about services and advocacy available to victims, intervention programs available to perpetrators, and all policies and procedures that ensure victim safety and well-being and offender accountability, including procedures for reporting incidents and sanctions for violations.
- Provide joint training to unit commanders, military police, prosecutors and military attorneys, and investigators on the impact of sexual assault, domestic violence, and stalking on women and their children.
- Evaluate the feasibility of collaborative military and civilian research teams to study violence against women in the military.

Recommendations for educating and mobilizing the public against violence against women from a primary prevention perspective include:

- Engage the media, community members, and educators. Focus on building community awareness of available services so that victims know where to turn to

for help. At the same time, communicate prevention messages that help create social sanctions against violent and abusive behavior. (Note: the latter is obviously the primary prevention aspect)

- Form community partnerships. Enlist sexual assault, dating and domestic violence, and stalking advocates; educators; faith leaders; and other community leaders to work together to raise awareness about all forms of violence against women.
- Create campaigns with a grassroots-organizing component. Work to develop the leadership skills of community members so that leaders of community groups can become powerful messengers.
- Target education and awareness campaigns to young people and men. Develop public education campaigns that educate young adults about relationship violence, sexual assault, and stalking. Develop campaigns that target men, and urge men to lead efforts to end violence against women.
- Complement community service campaigns with aggressive free media campaigns. Use the free media (newspapers, wire services, television, radio, magazines, and the Internet and other nontraditional media outlets) to reach broader audiences.
- Create partnerships with the media so that antiviolence campaigns continue through changes in media ownership and leadership. Work with the media to dispel myths about sexual assault, dating and domestic violence, and stalking.
- Seek corporate support for media campaigns. Encourage corporations to become partners in addressing sexual assault and domestic violence by developing workplace policies that address these issues.
- Target education and awareness campaigns to populations that might not be reached via a general outreach. Move beyond traditional media outlets such as newspapers, television, radio, and the Internet to reach these audiences.
- Evaluate public education efforts rigorously. Conduct research to determine the impact and effectiveness of public service and public education campaigns, then refine messages and campaigns to increase their impact.

The *Toolkit* provides more detailed sub-recommendations on how to implement these recommendations.

Primary Prevention of IPV – Jewkes

In her discussion paper published in the Lancet, Jewkes follows her diagram of causes (Figure 1) with a list of primary prevention interventions for the health sector and for other sectors for which the health sector should advocate:[16]

Figure 2: List of Primary Prevention Interventions for IPV - Lancet, 2002.

Primary prevention of intimate partner violence

Prevention strategy	Interventions by the health sector	Interventions by other sectors for which the health sector should advocate
Creating a climate of non-tolerance of intimate partner violence	Health-information campaigns to inform women of their rights, the law, and how health services can help Training health-sector staff about intimate partner violence and equipping them to help abused women and address abuse in their own lives	Comprehensive legislation on sex equality, intimate partner violence, sexual violence, and sexual harassment Training and monitoring the police and criminal justice system to ensure that legislation is satisfactorily enforced Raising awareness through the media, especially use of educational dramas such as *Soul City* in South Africa or *The Archers* in the UK Support for community action and supporting non-governmental organisations assisting abused women Public-information campaigns based around basic messages—eg, "No woman deserves to be beaten"
Empowering women and improving their status in society	Empowering women to control their fertility through accessible contraceptive and abortion services Promoting sexual equality in employment and empowering female employees within health services Promoting sexual equality in clinical practice and training	Improving opportunities for women's employment and access to credit Improving levels of female education Improving levels of female involvement in political activities locally and nationally—eg, through quota systems Positive role modelling of women in the media Measures to reduce the objectification of women in society—eg, by pornography and beauty contests Promotion of sexual equality in schools by appropriate training of teachers Legislation to facilitate women's access to divorce and maintenance
Reducing use of violence	Improving staff-patient relationships in the health sector with firm action against verbal and physical abuse of patients	Parenting programmes and measures to reduce physical punishment in child rearing Legislation banning corporal punishment Reducing portrayal of violence in the media Gun-control activities
Changing community norms	Addressing issues of gender and violence in community-based sexual and reproductive health and HIV-prevention education and training programmes	Addressing gender issues, violence, and non-violent conflict resolution in school life-skills programmes Supporting community theatre, action, and campaigns in the media on violence against women Promotion of men's groups addressing issues of male violence against women
Research and monitoring	Collection of data on violence against women including fatal and non-fatal injuries, information on perpetrators, and support for research Allocation of funds to support medical research into the epidemiology of violence against women and development and assessment of interventions	Allocation of funds to support research into development and assessment of interventions in all sectors
Risk factor		
Poverty		Measures to reduce poverty for women and men Employment creation for women and men
Alcohol	Health-promotion activities to reduce alcohol consumption	Legislative and fiscal-policy measures aimed at reducing alcohol consumption

Source: Jewkes R. Intimate partner violence: causes and prevention. Lancet 2002; 359: 1423-1429.

PROGRAMMATIC AND POLICY RESPONSES IN CANADIAN, U.S., AND AUSTRALIAN MILITARIES

Canadian Forces

In 1996, a research team of academic, community practitioner and military expertise was assembled. The research project involved:

- interviews with a cross-section of female partners and former partners of military members who had been victims of abuse – focusing on coping strategies, attempts to access supports and services in military and civilian communities, their results and consequences
- interviews with regional civilian and military community personnel – focusing on general military context, policies and practices relevant to abuse, responses to issues and problems, and factors distinguishing military from civilian clientele
- interviews with NDHQ program administrators and generals – focusing on military policies and practices relevant to abuse and responses to issues and problems identified in the preceding interviews.

Key findings of the work included:

- Increased vulnerability of women experiencing abuse in military communities:
    - Economic dependency – tend not to work, child care responsibilities
    - Frequent postings – lack of social network and extended family and barriers to departure
    - Alien environment
    - PMQ neighbourhoods – isolation, hiding abuse from workplace
    - Language disadvantages
- CF policy & culture
    - At the time of the report, states that CF had never admitted publicly that woman abuse was a problem in CF or that CF must assume responsibility, nor a precise directive to address it.
    - Keep problems to self
        - common practice for members to go to great lengths to keep their problems to themselves
        - military supervisors having little contact with chaplains, social workers, or health providers
        - spouses encouraged to not discuss problems with others
    - Lack of support from supervisors, as well as putting unit cohesion above all else
    - Pre-deployment screening: performed in an inconsistent manner that might not include the spouse or only in the presence of the military member
    - Family crisis teams (as of 1998/99) that may or may not exist or be functional, knowledge of community resources poor

The authors provide 51 recommendations. These fall into the following categories:

- General recommendations that address recognition of the problem, education of members, screening of recruits and resources for women who have been abused
- Address special vulnerability: briefings to spouses, military members, outreach off-base, transportation and/or housing priority for separated spouses and children to destination of choice, range of service providers on bases
- Improving implementation of CF policy: reporting, rigorous follow-up
- Supervisory and human service personnel: regular and repeated training in identification of abuse, military resources for those abused, and CF policy;

spouses interviewed individually and discreetly during pre-deployment screenings and be social workers conduct pre-deployment interviews
- Better coordination among service providers.

The recommendations formed the basis of the family violence action plan. The vast majority of the recommendations would fall into categories of secondary or tertiary prevention. The main components having some primary prevention aspects are those recognizing the issue of women abuse (policy) and educational efforts at CF members, supervisors, and spouses.

The CF's family violence policy (DAOD 5044-4) addresses the military's prevention and response to this issue. The policy establishes a series of core principles including:

- The safety of victims is the primary concern
- Family violence is not acceptable behaviour in the CF
- CF leadership must play an active role in the prevention of family violence
- All reported incidents of family violence must be acted upon
- All possible assistance and support to victims are provided in a discreet and empathic manner with due regard to family privacy
- The importance of gender dynamics when responding to incidents of family violence is recognized
- Confidentiality for all individuals involved in family violence cases, including victims, offenders, family members and those who reported the suspected incidents is afforded to the maximum extent possible under the law
- Counseling and support services will be offered to the offender as appropriate.

Program components include:

- CF Family Violence Advisory Committee to oversee all CF activities related to family violence and is comprised of key military leaders, civilian representatives of spouses and common law partners of CF members, and family violence experts from the civilian community
- Family crisis team for each base and serves as focal point for coordinating education and interventions in the matter of family violence
- Education to promote awareness of the problem, reduce tolerance for this type of behaviour, foster appropriate responses to family violence, and ensure that victims and their families are aware of services available. Using a variety of channels, CF members and their families are to be provided information regarding the dynamics of family violence, its effects upon families, and the resources available to assist them.
- Response protocol for an alleged or suspected incident of family violence in the family of a CF member.

To support the education/awareness component of programming, the CF has compiled a variety of family violence prevention resources including brochures, an environmental scan, best practices in training strategies and prevention programs, and slide presentations and campaign kits.

U.S. Armed Services

There have been longstanding concerns regarding violence against women and the U.S. military. A *60 Minutes* episode in 1999 prompted the creation of a Defense Task Force on Domestic Violence that produced a series of 3 annual reports. Key areas of recommendations included:

- Culture shift: creating a military culture that does not tolerate domestic violence, holds offenders accountable for their actions and punishes criminal behaviour
- Victim advocate program
- Intervention process model: guideline for responding to incidents of domestic violence
- Assessment and intervention teams
- Fatality reviews
- Training and prevention programs: general public awareness and trainings for chaplains, law enforcement and health care personnel, senior enlisted and commanding officers
- Accountability for offenders
- Strengthen collaboration between military and civilian communities
- Evaluation.[18]

Individual services have standards for prevention programming. For example, the USAF's Family Advocacy Program identifies that primary prevention programming is to "promote healthy family and community functioning, reduce family maltreatment and enhance mission readiness".[19] Activities are to "promote community awareness campaigns during Domestic Violence Prevention Month". Family violence education and prevention training is to focus on fostering sensitivity to family violence issues and advocacy for nonviolent communities, promote leadership, and community member responsibility to family violence prevention, and will emphasize early identification, reporting, referral and resources. Further information on program standards is provided in Appendix A.

Australian Defence Force

Information on domestic violence prevention in the Australian Defence Force is provided in Appendix A.

LITERATURE REVIEW METHODOLOGY

The purpose of this project is to conduct an in-depth literature review to address the following question:

> *What is the current state of the scientific literature supporting effective interventions for the primary prevention of intimate partner violence in women?*

A focus on IPV prevention in women was due to the majority of IPV victims being women and the greater severity of IVP experienced by women.

As a preliminary step, searches were conducted of the following databases to locate existing systematic reviews on IPV primary prevention:

- U.S. Clinical Preventive Services Task Force (USCPSTF)
- Canadian Task Force on Preventive Health Care (CTFPHC)
- U.S. Task Force on Community Preventive Services (USTFCPS)
- U.K. Centre for Reviews and Dissemination (CRD)
- National Institute for Health and Clinical Excellence (England), contains the former UK Health Development Agency
- OVID EBM Multi-file[iv]
- Effective Public Health Practice Project – Ontario Public Health Research, Education and Development Program (PHRED).

The search was then expanded to include a variety of additional websites including:

- National Clearinghouse on Family Violence
- National Advisory Council on Violence Against Women (U.S.)
- Woman Abuse Prevention.

In the absence of a comprehensive, up-to-date systematic review, the primary literature was searched using the following indexed databases: Medline, Embase, PsycInfo, CINAHL, Sociological Abstracts, and ASSIA. The searches were conducted with the following search scheme:

> Woman/Partner [AND] Abuse/Violence [AND] Intervention [AND] Design

More detail on the specific search terms utilized for each of these domains is provided in Appendix B. Additional searches were made of indexed databases for domestic/partner

[iv]Contains four Evidence Based Medicine Reviews databases: ACP Journal Club, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, and Database of Abstracts of Reviews of Effects.

abuse/violence prevention in military populations. Searches were also conducted on U.S. and Australian military websites.

Studies to be included in the review include those that:

- Evaluated an intimate partner primary prevention/intervention program
    - Excludes screening, early recognition, and treatment interventions
    - Excludes child abuse, elder abuse
- Evaluated an intervention within the scope of policy choices for the CF
- Focus on adults aged 18-50 years generalizable to CF population
    - Excludes school-based programs
    - Excludes interventions limited to third world settings
- Provided outcome information for women, partners, or community – require IPV specific outcomes including changes in attitudes/intentions
- Had a control or comparison group (including before/after studies)
- Published since 1996
- English language.

All citations identified through the search strategy were collated into an electronic database (Reference Manager). A preliminary screen was conducted based on title and abstract (if necessary) of citations. Articles appearing to meet the inclusion criteria were retrieved and reviewed for eligibility.

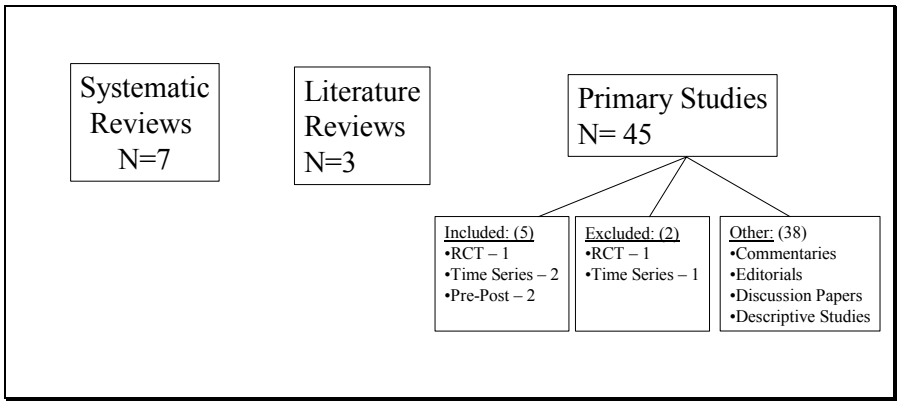
The quality of systematic reviews was assessed based on criteria recommended by the CRD.[20] For primary studies meeting the inclusion criteria, the quality assessment tool developed by the Effective Public Health Practice Project was utilized.[21] Appendix C provides additional details on these quality assessment tools.

FINDINGS

SUMMARY OF SEARCHES

The combination of database and Internet searches resulted in over 3,000 citations for review. Figure 3 indicates that of these, 45 primary studies were identified as potentially relevant. Of these, five primary studies met this review's inclusion criteria.

Figure 3: Number of Retrieved Publications



Searches for Existing Systematic and Literature Reviews

The following table summarizes the findings from a search of key organizations' websites to identify existing systematic and literature reviews of potential relevance.

Organization	Number of Potentially Relevant Citations
Canadian Task Force on Preventive Health Care	1
U.S. Task Force on Community Preventive Services	1
Effective Public Health Practice Project (Ontario Public Health Education and Development Program – PHRED)	1
Campbell Collaboration	0
National Institute for Health and Clinical Excellence	1
Centre for Reviews and Dissemination	0
Evidence-Based Medicine Reviews*	1 review protocol 6 primary studies
U.S. National Academies of Science	1
Internet search and violence prevention websites	4

* This OVID database allows simultaneous searching of 4 databases: ACP Journal Club (ACP), Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews (CDSR), and Database of Abstracts of Reviews of Effects (DARE).

Searches of Indexed Science and Social Science Databases

Use of the initially planned search terms in three databases (Medline, CINAHL and Embase) resulted in the identification of over 6,000 citations. Narrowing of the focus of keywords resulted in 1,935 citations. Of these, 27 were retrieved for further assessment. Searches of the PsycInfo, ASSIA, and Sociological Abstracts databases yielded 1,270 citations. A review of their titles and abstracts identified an additional 22 publications for retrieval.

Relevant references cited in reviewed materials were retrieved and reviewed.

EXISTING SYSTEMATIC REVIEWS

A systematic review (SR) is defined as:

> A review of the evidence on a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant primary research, and to extract and analyze data from the studies that are included in the review.[20]

Several SRs were retrieved that appeared to address the study question, although most provided limited, if any pertinent information. None of the SRs comprehensively assessed the range of potential primary prevention approaches that could be used to address IPV. A major review conducted by the U.S. National Research Council and the Institute of Medicine published in 1988 did a comprehensive assessment of the state of evaluation of prevention and treatment programs for family violence.[22] Relevent conclusions at that time included:

- Findings from small-scale studies are often adopted into policy and professional practices without sufficient independent replication or reflection on their possible shortcomings
- Identification and treatment interventions predominate over preventive strategies in family violence, reflecting a current emphasis on after-the-fact interventions rather than proactive approaches in the design of interventions
- It is premature to offer policy recommendations for most family violence interventions in the absence of a research base that consists of well-designed evaluations.[22]

Unfortunately, not much has changed since the release of that major report. Only one subsequent SR that was conducted by the U.S. Task Force on Community Preventive Services (USTFCPS) provided results that addressed an intervention relevant to the study question. The USTFCPS examined the effectiveness of early childhood home visitation

in preventing violence.[23] In these programs, parents and children are visited at home during the child's first 2 years of life by trained personnel who provide some combination of information, support, and/or training about child health and development. These programs may therefore be a blend of preventive levels: primary (e.g. supportive and nurturing parenting and family environment); secondary (e.g. early detection/screening); and tertiary (e.g. making visits to abused women/children).[24] Only one of the included studies assessed the effect of home visitation on IPV. No significant difference in the incidence of IPV between the intervention group and control groups was detected. The report did however, find that there was strong evidence that such programs are effective in reducing child maltreatment.

A SR by Whitaker et al. focuses solely on adolescent partner violence prevention programs.[25] All of the studies were conducted with individuals less than 18 years of age and were predominantly school-based. Therefore, these studies are not generalizable to the CF population and did not meet the inclusion criteria for this review.

In 2001, the Effective Public Health Practice Project published a SR on the effectiveness of public health interventions to reduce or prevent female spousal abuse.[26] The authors conducted a search of several databases from 1975-2001. Ten studies met their inclusion criteria. All the studies were conducted in U.S. urban centres with participants of low-economic status and 83% of which were pregnant. An examination of their included studies indicates that they were secondary or tertiary prevention studies with all of the participants having been abused or were identified as such during screening. Their literature search appears to have limited studies to those interventions to strengthen individual knowledge and skill versus a broader range of public health approaches.

The Canadian Task Force on Preventive Health Care (CTFPHC) published a SR on the prevention and treatment of violence against women in 2001 with its primary focus on *secondary* prevention.[11] It did however, include a section on "social interventions" and described a randomized study of housing developments for primary and secondary prevention, which was added to the pool of primary studies for review. The other primary prevention studies described all addressed school-based interventions. With respect to the primary focus of their report, the CTFPHC concluded that based on existing evidence, there is insufficient evidence to recommend for or against screening for violence against non-pregnant or pregnant women. The U.S. Preventive Services Task Force came to the same conclusion in 2004.[27]

In summary, existing SRs do not address the primary prevention of IPV beyond early childhood home visitation programs, which have not been shown to be effective for preventing IPV.

EXISTING NON-SYSTEMATIC LITERATURE REVIEWS

In contrast to SRs, literature reviews are defined as:

> An article that summarises a number of different primary studies and may draw conclusions about the effectiveness of a particular intervention.[20]

Because literature reviews are not systematic in nature, caution is required in interpreting their findings since biases can be introduced in the often unspecified manner in which primary studies are searched, included and assessed. They can however, provide a general indication regarding the breadth and content of the literature that can be useful in planning a more comprehensive SR.

In 1997, the U.S. Air Force (USAF), in partnership with the National Network for Family Resiliency, published the findings of an extensive literature review on partner violence.[28] The authors found evidence of an extensive range of preventive programs that included:

- Community-level strategies:
    - Media campaigns to reduce societal tolerance for partner violence
    - Advocates for structural and economic changes (e.g. Family Allowance benefits to families, labour practices, corporal punishment policies, etc.)
- Individual-level strategies:
    - Programs for couples to teach communication and conflict resolution skills (e.g. Prevention and Relationship Enhancement Program (PREP) that was being provided in USAF at that time)
    - Programs for teens.

Overall, the authors concluded that "the effectiveness of these programs remain essentially unknown…The research does suggest that prevention programs for partner violence may need to begin earlier than high school. One of the most consistent risk factors for partner violence was experiencing or witnessing violence in the family of origin."[28] They concluded that the area of prevention needs increased evaluation of programs, education and awareness that violence is not acceptable, teaching of non-violent conflict resolution skills, and to begin prevention programs earlier.

A review supported by the Ontario Ministry of Health and Long Term Care conducted a search of several databases and health-related websites.[29] While the authors describe that they were tasked to critically appraise the literature, the article is framed more at promoting interventions that are "successful" versus actually describing the nature of those successes and any limitations of the reviewed studies.

COMMENTARIES AND DISCUSSION PAPERS

Most of the retrieved publications were neither literature reviews nor primary studies, but were commentaries on IPV. Selected items are cited in this section.

In a commentary published in the Lancet in 2002, Jewkes summarizes information on risk factors for IPV from studies from several countries and outlines a number of potential prevention strategies (see earlier Figure 2). The author acknowledges that "there is very little evidence of the effectiveness of primary prevention interventions in this area or the relative importance of the suggested interventions."[16] She also notes that because of the inter-dependencies of risk factors, isolated improvement of one risk factor could have unknown effects including the worsening of overall risk to women.

In a 2004 report from the National Center for Injury Prevention and Control of the U.S. Centers for Disease Control and Prevention (CDC), the authors outline the CDC's strategic plan for violence prevention and specific research priorities for IPV. They note that the violence against women field "lacks research or program models that are truly both primary prevention in nature and comprehensive." In addition, "the challenge of applying evidence-based strategies, which are currently in short supply, to all aspects of violence against women prevention is probably the most difficult task for the next decade. The lack of empirically tested strategies reinforces the importance of ensuring that newly developed strategies are driven by sound science and theory…[and] the importance of evaluation."[30]

The recently published textbook on violence prevention written predominantly by CDC staff notes that "Unfortunately, systematic and rigorous outcome evaluations of IPV interventions have not been made."[1] The book's descriptions of interventions are limited to community based interventions for battered women (e.g. shelter programs); those targeted towards assailants; and coordinating councils. Similarly, a CDC funded initiative to train practitioners to use evidence-based approaches to the primary prevention of violence has been found "challenging as a result of the dearth of well-evaluated intervention programs and the lack of familiarity of some practitioners in drawing critically on existing literature."[31]

A discussion paper by Leonard reviews the evidence of an association between alcohol intake and domestic violence.[32] The author argues that while alcohol is neither a necessary or sufficient cause, it is a contributing cause to domestic violence. He states that the vast majority of research has been focussed on whether or not there is a relationship versus the prevention and policy issues in this area. While Leonard is of the opinion that there is a causal relationship that will have prevention implications in the future, a SR published in 2006 casts some doubt. Gil-Gonzalez et al. conducted an extensive literature search identifying 22 studies that assessed alcohol intake and physical violence against female partners.[33] While the pooled odds ratio suggested a more than four-fold increase in risk of violence with alcohol consumption, the underlying quality of the studies was problematic. For example, the majority of the studies were cross-sectional designs, which cannot be used to assess causality, but can be used to generate hypotheses. The authors concluded that there is not enough empirical evidence to support preventive policies based on male alcohol consumption as a risk factor for IPV.

PRIMARY STUDIES

A total of 5 primary studies were retrieved that met this review's inclusion criteria. Appendix D provides a summary of the findings from these studies. The following narrative discussion of studies has been grouped by type of intervention.

Media

Gadomski et al. report on a rural domestic violence prevention campaign.[34] The intent of the campaign was to modify societal attitudes and norms regarding the acceptability of IPV. The investigators utilized a social marketing approach with gender-neutral messages that included 4,000 30-second paid radio ads. In addition, they used 12 weeks of still-image PSAs on local cable TV, 10 newspaper articles, 36 print ads, 15 speaking engagements, 105 bulletin board posters, mailings to community organizations, health facility postings in public areas and women's bathrooms, "palm cards", and T-shirt art. Main messages were recognition of domestic violence, the verbal to physical continuum of abuse, effects on health and on children, promotion of public disapproval and what actions to take. Messages were linked to a previous state-wide campaign & preceding training of health care staff on identification, management and referral of patients experiencing domestic violence.

Pre- and post-intervention surveys were conducted in both counties assessing multiple attitudinal and behavioural intention items. Unfortunately, a perinatal network in the comparison county launched a radio PSA campaign at the same time. Appendix D lists the results for multiple outcome measures showing that changes in the intervention county were small for most items and typically not different from the comparison county. One of the few items that showed a change was that respondents stated that they would talk to the victim if they thought their next door neighbour was being abused with an increase from 5% to 13% in the intervention county compared to an increase of 12% to 15% in the comparison county. Considering that the authors presented results for 17 different items, one would expect that one or two would show a significant difference due to chance alone.

In a study by Ryan et al., the authors attempted to alter the manner in which the media portrayed domestic violence murders.[35] The group was concerned that reports suggested that victims were at least partially responsible for their fates, sensationalized the murder, avoided the social dimension of domestic violence, and focused on the perpetrator's motives. Developing a handbook on domestic violence specifically for journalists, the investigators conducted content analysis of the print media prior to and after the release of the handbook. The study reports changes in domestic violence language, a change in key sources quoted in articles, and greater use of domestic violence advocates in news stories. In the absence of a control group, it is uncertain whether patterns of news reporting may have been changing as part of broader social trends. It is also uncertain to what extent this change in reporting practices impacted the public.

A potentially interesting study by Wray et al. describes the development of a theory-based set of radio commercials in the form of a dramatic radio serial.[36] The conceptual framework addressed beliefs about becoming involved and taking action with regard to domestic violence. The assumption was that raising the level of social interaction about domestic violence would make its occurrence less likely. Involvement of the target population, researchers, writers experienced with writing dramatic material, and a major marketing communications agency occurred, as well as pilot testing with members of the target audience. Unfortunately, despite making a special effort to encourage local stations to broadcast the series and receiving their commitment to do so, the radio stations did not in fact play the commercials. The evaluation showed that less than 1% of the target audience remembered hearing even half of the radio spots. The key conclusion was that one could not rely on non-paid, voluntary airing of PSAs.

Early Childhood Home Visiting

A study of early childhood home visiting conducted in New Zealand was published following the USTFCPS' systematic review that was previously described.[37] Consistent with the SR, at 36 months of follow-up, no difference was detected between the intervention and control groups for the proportion of mothers having been assaulted by her partner in the preceding 12 months (8.7%, 7.3%; p=0.60).

Family Education and Skills Development

In a study by Kramer et al., couples going through divorce attended a mandatory 3-hour education session to learn skills for communicating and interacting with their ex-spouse to reduce conflict that their child would be exposed to.[38] A control group was selected from another state without such sessions. IPV was assessed at the time of the intervention and three months later with no difference detected between the intervention and control groups. Prevalence of IPV was relatively low at baseline and improved in both groups over time.

Selected Excluded Primary Studies

The CTFPHC SR reported on a New York-based study comprised of both primary and secondary prevention interventions.[39] The investigators used a combination of public education (leaflets, posters and presentations at community and tenant association meetings) and home visits by a police officer and social worker following an earlier domestic violence response call by police. The study was excluded because reported events of IPV were grouped with elder abuse and sibling violence. The authors reported that households receiving education and home visits were more likely to report new violence compared to non-intervention households. Outcome measures were limited to surveys of victims and cases of violence reported to police versus actual rates of violence. The data analysis was problematic because individual-level outcomes were analyzed even

though the level of intervention for the primary prevention component was housing projects. Such an error is more likely to result in any observed differences being found to be statistically significant.

A USAF publication primarily focussed on suicide prevention also published data on the occurrence of mild, moderate and severe family violence following the introduction of a comprehensive suicide prevention program.[40] Exclusion of the study was due to the inclusion of IPV and child abuse within the same outcome measure. Interventions included increasing the preventive functions of mental health personnel and establishment of integrated delivery system for human services. As stated in the article, part of the strategy was to encourage greater referral to and utilization of the Family Advocacy Program and other services. Table 3 is reproduced from the publication.

Table 3: Pre-Post Comparison following program implementation for selected outcomes

Outcome	Relative Risk (95% Confidence Interval)	Risk Reduction	Excess Risk
Suicide	0.67 (0.57, 0.80)	33%	-
Homicide	0.48 (0.33, 0.74)	51%	-
Accidental death	0.82 (0.73, 0.93)	18%	-
Severe family violence	0.46 (0.43, 0.51)	54%	-
Moderate family violence	0.70 (0.67, 0.73)	30%	-
Mild family violence	1.18 (1.16, 1.20)	-	18%

Source: Knox et al. BMJ 2003; 327: 1376.[40]

What is striking is that all of the measures, with the exception of mild family violence, had statistically significant reductions. Less clear is how the interventions could have achieved these diverse sets of outcomes ranging from family violence to suicide to homicide and accidental death. Because this is a time series design, the fundamental challenge is determining whether the interventions actually had anything to do with the observed changes. Later data points showed that the suicide rates rebounded in subsequent years despite the continued intervention.[41] It is possible that the intervention, which focused heavily on educational training sessions, was fortuitously timed to mirror a cyclical downward trend in rates of multiple types of violent behaviour.

DISCUSSION

The purpose of this report has been to assess the state of the scientific literature supporting effective interventions for the primary prevention of IPV. Despite a comprehensive search of multiple health and social science databases, few studies were retrieved that addressed this question. Those that were retrieved provide little in the way of evidence with interventions either showing little or no effect and of generally weak quality. Considering the comprehensiveness of the search and the consistency of the finding with the content of recent commentaries and discussion papers, the lack of evidence appears to be an accurate reflection of the state of current knowledge.

A common theme in the literature is the relative infancy of research in the area of IPV with other areas of violence prevention such as child abuse having had a much longer track record of investigation and intervention. This was reflected in the literature search with many citations for child abuse retrieved for every one focussed on IPV. For those addressing IPV, most of the current literature is focussed on descriptive epidemiology, risk factors, and secondary and tertiary prevention. It is indicative of the state of the literature and the challenges posed by IPV that screening has not been shown to be clearly effective even though screening and management appear more straight forward than primary prevention.

Designing potentially effective primary prevention interventions requires a clear understanding of causal pathways. However, information on IPV risk factors is still emerging. What is available provides cautionary information regarding expectations for primary prevention. Most, if not all, of the risk factors typically identified for IPV are not easily modifiable, are rooted in the values and attitudes of the overall community from which military members are recruited, and are typically initiated in childhood. As such, many of the existing commentaries and reviews encourage focussing primary prevention efforts on children in order to impact developing attitudes towards relationships and the appropriateness of violence. As noted in the *Toolkit to End Violence Against Women,* "ideas and opinions about violence against girls and women are formed at a young age. Communities can focus some outreach efforts on young girls and boys to influence the development of attitudes and behaviours that may last a lifetime."[17]

Part of the challenge for primary prevention is that there is not a clear, explanatory model to guide interventions and their evaluation. Many of the primary studies reviewed grouped different types of family-related violence together making it impossible to assess impacts on IPV. Even those studies included in this review are not purely primary prevention type interventions, but appear to be encouraging early detection and/or responsiveness to existing violent relationships.

While home visiting programs have shown benefits for reducing child maltreatment, this has not been the case for IPV. The typical model focuses on supporting parenting and child nurturing particularly by the child's mother, so beyond early detection of IPV, it is not actually clear how this intervention would be expected to primarily prevent violence committed against her by her male partner. Regardless, in the absence of demonstrated

effectiveness, home visiting programs cannot be recommended as a means to prevent IPV at this time.

The use of media to increase awareness and encourage action against IPV has been pursued for several years. The U.S.' Ad Council conducted a series of PSAs over a decade ago reporting some improvement in one attitude (public's business when an individual physically abuses an intimate partner during an argument in the home),[42] but not in multiple other areas.[34] The well designed attempt to use serial radio ads ultimately failed when despite commitments, the radio stations did not actually play the PSAs.[36] Gadomski et al. avoided this major drawback by using paid advertisements and linking them to a comprehensive set of other media interventions, as well as training of health care providers.[34] Despite the extensiveness of the interventions, results in the intervention county were small and generally not larger than the comparison county, although the latter was contaminated by another media intervention.

If levels of prevention are strictly applied, then most media campaigns, including those encountered in this review, fall more readily into secondary and tertiary prevention than primary prevention. For the most part, they are trying to change the attitudes and responses of bystanders, those being abused, and/or perpetrators. There is some potential spill over effect that might reduce violence from occurring in the first place, but that is not their primary intent. The literature searches identified some primary prevention education interventions, but these were targeted at grade and high school students. The current Ad Council Campaign is focussing on early attitudes by targeting fathers to teach sons what not to hit using a sports context (e.g. you teach him how to hit a ball, hit a receiver, etc., but have you taught him what not to hit?). Evaluation will be required to assess whether this approach is effective.

Designing a campaign to address IPV faces a number of challenges:

- Defining the target group: is it the victim, abuser or bystander?
- What is the desired outcome: changing individual behaviour or social norms?
- Designing messages that will not further harm women who are in a violent situation.[34]

The latter is an important concern. Impacts of public education for IPV are not always neutral or positive. This is why Gadomski et al. made a specific attempt at being gender neutral in their messages. Previous studies have noted that attitude backlash could occur among males with some types of messaging. A 1999 review published on the Woman Abuse Prevention website notes that even in school-based educational programs, attitude backlash could be observed among some male participants in some studies such that there were as many changes for males in the undesired as the desired direction.[43] In general the notion that exposing persons to the threat of punishment has an educational effect is not supported. For male participants, "a perpetrator-focused message was associated with male students evaluating macho behaviour towards girls more positively, believing more strongly in the myths about sexual intimidation and were more accepting of coercive sex

under some conditions." In some ways, these findings are reminiscent of studies assessing suicide prevention curricula that found that while the programs increase suicide-related knowledge, they may have harmful effects including increasing the proportion of young men who view suicide as a reasonable solution to problems.[41]

Based on the existing evidence, it is difficult to recommend an IPV primary prevention media campaign to be pursued by the CF. Conceptually, the CF population appears to be the wrong age group for primary prevention, and media interventions of fairly substantial magnitude have had limited impact. What then should the CF do to prevent IPV?

Decision making regarding interventions is challenging when faced with research that is underdeveloped, inadequate or incomplete. In such circumstances, discussion of "best practices" often occurs and has been described as the "process of planning for most appropriate interventions for the setting and population". [44] Based on expert consensus, the Council on Violence Against Women's *Toolkit* provides a number of best practice recommendations for IPV prevention in military settings (see box). None are particularly revolutionary, and are reflected in current CF policy.

Existing Best Practice Recommendations for IPV Preventive Efforts in Military Environments

- Expanding efforts to ensure that trainers and commanders respond to disparaging and derogatory comments, chants and cadences to race, gender or sexuality in a way that reinforces that such behaviour is unacceptable
- Continue to conduct training on violence against women in consultation with experts from the military and civilian communities for all levels of military personnel.
- Design training programs to increase service members' understanding of the incidence, prevalence, and impact of violence against women. Include information about services and advocacy available to victims, intervention programs available to perpetrators, and all policies and procedures that ensure victim safety and well-being and offender accountability, including procedures for reporting incidents and sanctions for violations.
- Provide joint training to unit commanders, military police, prosecutors and military attorneys, and investigators on the impact of sexual assault, domestic violence, and stalking on women and their children.
- Evaluate the feasibility of collaborative military and civilian research teams to study violence against women in the military.

Source: National Advisory Council on Violence Against Women and the Violence Against Women Office. Toolkit to end violence against women.

CDC publications identify that a comprehensive public health approach to IPV prevention is a step-wise approach that includes:

1. Definition and measurement
2. Identification of risk and protection factors and development of interventions based on these factors
3. Evaluation of public health interventions to determine their impact
4. Dissemination of promising strategies to ensure their widespread adoption.[30]

The focus of this review has been on assessing the state of steps 3 and 4 with little in the way of evaluation of public health interventions. However, the critically important preceding steps have not been done. For the Canadian military population, basic

descriptive epidemiology on the incidence and prevalence of IPV in the CF is unknown. Similarly, the extent of modifiable risk factors for IPV in this population has not been assessed. Some of this work has begun in the US forces but it is not clear whether American data is entirely relevant for the CF. In addition, even if effective intervention data became available from other community or military populations, appropriate tailoring of those interventions will need to occur that takes into consideration the social and psychological CF context. Greater descriptive information on the nature and context of IPV in Canadian military families is needed to inform the development and evaluate of IPV interventions. Collecting this information as part of the planned Relationship Study is therefore a positive step. Due to the state of the current literature, any primary prevention interventions for IPV should be viewed as research initiatives and therefore be thoroughly documented, evaluated and their findings published.

It is therefore recommended that:

1. In the absence of evidence for effective primary prevention interventions for IPV, that interventions focus on secondary and tertiary prevention. Evaluations of these interventions should be conducted to maximize their impact.
2. Information on the occurrence of IPV in the CF population and risk and protection factors associated with IPV be collected.
3. Based on the findings from 2 above and in collaboration with civilian researchers, that theory and evidence based interventions for the primary prevention of IPV be developed, implemented and thoroughly evaluated.

APPENDIX A – OTHER MILITARIES' VIOLENCE PREVENTION PROGRAMS

AUSTRALIAN DEFENCE FORCE

(http://www.defence.gov.au/dco/wellbeing.htm#5)

The Australian Defence Force has a Defence Community Organisation to help to build the resilience and wellbeing of ADF members and their families. Its website provides information on:

- Types of domestic violence
- The cycle of violence
    - Quick tips
- Effects on children
- What you can do if you become abusive
    - Quick tips
- What you can do if you are being abused
    - Quick tips
- Support services and contact details
- Emergency service numbers

USAF FAMILY ADVOCACY PROGRAM – PRIMARY PREVENTION PROGRAM

(https://www.airforcefap.org/user/sdd/sdd_user_display.asp?action=display_standards&SectionID=40&objectid=2)

P.8.1 The FAP team will collaborate with key partners, including MTF services, the IDS, unit leadership and community helping agencies to develop and provide primary prevention activities that promote healthy family and community functioning reduce family maltreatment and enhance mission readiness. (see standard P-3) The FAOM is the prevention team facilitator and key community liaison for FAP.

P.8.2 Primary prevention services and community organization initiatives will target all members of the community and will be offered on a voluntary basis. Emphasis in primary prevention training should especially focus on leadership, active duty, school age youths, and adult family members.

P.8.3 The FAP team has collective responsibility for contribution and participation in prevention/outreach collaborations and activities. The FAOM will be the team coordinator for primary prevention services.

P.8.4 Primary prevention activities will promote community awareness campaigns during Child Abuse Prevention Month and Domestic Violence Prevention Month.

P.8.5 Family and individual skill building, and community education programs unique to the FAP mission will be coordinated through the IDS to avoid duplication.

P.8.6 In collaboration with the NPSP Team, and the IDS, the FAOM will develop or identify a program(s) or activities that address community prevention with families of children prenatal-3 and that supports the NPSP and Logic Model. Primary prevention services to families with children prenatal-3 will focus on education, advocacy and skill development. These community prevention services will cover education skills in parenting, family adaptation, couples communication and problem solving (see NPSP Manual) and upon request or need, will provide training in how to develop community advocacy and supports. The FAOM will ensure that these low needs families are assisted with resource finding and service linking. All FAP staff will participate in community prevention services to this population. Education and skill development conducted specific to the families of prenatal to (listed in OPAL as families of 0-5) will be identified in the Assets-Based Skill Support category in the OPAL.

P.8.7 The FAOM supports the FMCMT/CCS as a FAP consultant on prevention and systems resources and provides training to the team IAW the standards as appropriate and as needed. The FAOM attends the FMCMT/CCS as dictated by the FAO. They can function as a subject matter consultant on prevention and community resource finding and service linking. When attending the FMCMT/CCS the FAOM will not provide individual or personal assessment of individuals or family members. The FAOM will provide an assessment of the communities ability to support the needs of clients as they are identified by the case manager or other clinical support staff, and/or make recommendations about ways to manage situational prevention intervention issues. The FAOM will request consultation/information from clinical intervention staff on base trends in family violence to inform planning and implementation of outreach and prevention services.

P.8.8 The FAOM will dialogue with the FAN and FATM to discuss information and observations regarding home-based services. The FAOM will attend the NPS staffing as a subject matter consultant on prevention and resource finding and service linking. The FAOM will be the principle liaison to the IDS and will assist in identifying community resource needs and in referring specific needs of the families of prenatal to 3 year old children and other needs identified through FAP to the IDS. The FAOM carries out the role of identifying and marketing FAP NPSP services to the community through the IDS. The FAOM will not participate in home visitations.

CONSIDERATIONS:

The FAOM signature on the Case Staffing Attendance Form will represent attendance and participation at the secondary prevention staffing and this is acceptable. The Attendance Form will be placed in the record; however, this will not represent any individual assessment of clients by the FAOM. The purpose of attending the staffing will be:

• To provide information on the ability of the community to support NPSP client identified needs.
• To provide resource finding and service linking services. Where no resource exists on base or locally, the FAOM, in collaboration with home visitation staff and/or IDS agency(s), develop options for addressing the need.
• To offer recommendations on the kind of prevention interventions that may be useful in addressing identified issues i.e. prevention knowledge and skills for dads; prevention interventions for pregnant teens (male and female), substance abuse issues; Functioning as a technical advisor in the development of learning, activity or support groups for moms, dads, or youth (identifying a group leader/facilitator and teaching that individual, where necessary, techniques for group leadership and offering support as requested). The FAOM provides recommendations for the interest/issues of populations rather than individuals.
• Discussing issues appropriate for carrying to the IDS and the strategy for doing so.
• Learning from the home visitation staff what observations and trends are notable and have implications for Outreach, IDS, or local community services (proactive and need driven).
• To discuss and plan marketing campaigns or actions that facilitate information awareness and/or support for families of children prenatal to age 5 and low needs and for NPSP client activities.

The FAOM may facilitate and coordinate programs or activities through the IDS, local professionals, or community agencies. The FAOM may conduct prevention education, skill
building and advocacy activities alone or in collaboration with FAP staff or appropriate others. The role of the FAOM is to ensure that resources are in place for the low needs families with prenatal-3 population and that such services are accessible to families. (See NPSP manual for other information on prenatal-3 families.)

Media development and special theme events promote healthy family functioning through community awareness activities. Pamphlets, brochures, news articles, and handouts can augment special events such as Parent University and Military Family Appreciation Month.

Community education may include briefings, training, and seminars on a wide variety of individual and family wellness topics.

Family and individual skill development programs teach skills across the life span. These programs promote life skills necessary for the healthy development and enhancement of individual, family, and community readiness.

Family and individual skill development programs may include couple's communication, parenting skills training and anger management. These programs or services should be conducted and facilitated through/by the IDS. When IDS community support is not available and there are gaps in services, the FAOM should first identify local professionals and/or resources that can support active duty and families with these needs.

When the FAOM provides such services it is important to seek out others as collaboratives. When such activities are carried out in collaboration, remember to enter in the OPAL in the Collaboration category and to enter activities conducted by the FAOM in the Assets-Bases Skill support category of the OPAL.

APPENDIX B – PRIMARY LITERATURE SEARCH STRATEGY

Based on the systematic review conducted by the PHRED program, the following search terms were utilized:

Population	Abuse	Interventions	Study Type
Spouse Wife/Wives Partner Woman/Women Domestic	Abuse Violence	Advocacy Awareness Campaign Counseling Education Legislation Media Policy Prevention Program Support	Case-control Clinical trials Randomized * Cohort study Comparison Control Evaluation Random allocation Time series

The initial search of three databases retrieved over 6,400 citations. The strategy was adjusted to reduce the volume of citations to a more manageable level. The search parameters were narrowed to exclude keywords such as "woman" and "support" which generated many more kits than other keywords. Greater focus was also applied to key words. This resulted in a substantial reduction of citations to *. As a supplement, "spouse abuse" or "domestic violence" AND "primary prevention" were used and this generated an additional 300 citations.

After retrieving potentially relevant publications, the paucity of systematic reviews or primary studies meeting the inclusion criteria led to a loosening of the search parameters which retrieved an additional 1097 citations, none of which were potentially relevant for inclusion.

For the PsycInfo, Sociological Abstracts, and ASSIA databases, the search strategy was adapted for these databases as follows:

> DE=("domestic violence" OR "battered females" OR "partner abuse") AND KW=(Advocacy OR Awareness OR Campaign OR Education OR Legislation OR Media OR Policy OR Prevention OR Program) AND (Case control OR Clinical trials OR Random* OR Cohort stud* OR Comparison OR Control OR Evaluation OR Time series)

This search retrieved 1270 citations.

Additional searches were made of indexed databases for domestic/partner abuse/violence prevention in military populations. Internet searches were also conducted on U.S. and Australian military websites to identify non-published reports and programmatic descriptions.

APPENDIX C - QUALITY ASSESSMENT OF NON-RANDOMIZED STUDY DESIGNS

Quality assessment of systematic reviews and non-randomized study designs is primarily qualitative. The CRD provides recommended lists of items to review for each type of publication.[20]

SYSTEMATIC REVIEWS

What is the review's objective
(population/participants; interventions, outcomes and study designs)

What sources were searched to identify primary studies
(databases searches, any restrictions by date, language and type of publication; other strategies used?)

What were the inclusion criteria and how were they applied?

What criteria were used to assess the quality of primary studies and how were they applied?

How were the data extracted from the primary studies?

How were the data synthesized?
(how were differences between studies investigated; how were the data combined; was it reasonable to combine the studies; what were the summary results of the review; do the conclusions flow from the evidence reviewed)

EFFECTIVE PUBLIC HEALTH PRACTICE PROJECT (PHRED) - QUALITY ASSESSMENT TOOL FOR QUANTITATIVE STUDIES

INTRODUCTION

The purpose of this tool is to assess the methodological quality of relevant studies since lesser quality studies may be biased and could over-estimate the effect of an intervention. Each of two raters will independently assess the quality of each study and complete this form. When each rater is finished, the individual ratings will be compared. A consensus must be reached on each item. In cases of disagreement even after discussion, a third person will be asked to assess the study.

When appraising a study, it is helpful to first look at the design then assess other study methods. It is important to read the methods section since the abstract (if present) may not be accurate. At the end of the assessment process, each rater should assess the overall quality of a study. Descriptions of items and the scoring process are located in the dictionary that accompanies this tool.

The scoring process for each component is located on the last page of the dictionary.

NOTE: Studies with a global rating of 'weak' are not usually assessed further other than reported in the excluded studies table together with the reason(s) for exclusion. In situations where only weak studies exist, review groups should discuss how to report the results.

INSTRUCTIONS FOR COMPLETION

Circle the appropriate response in each component section (A-H). Component sections (A-F) are each rated using the roadmap on the last page of the dictionary. Lastly, the study is given a global rating on page 6. After each individual rater has completed the form, both reviewers must compare their ratings and arrive at a consensus.

The dictionary is intended to be a guide and includes explanations of terms.

Ref ID: _____

Author: _____

Year: 200_

Reviewer: _____

QUALITY ASSESSMENT TOOL for QUANTITATIVE STUDIES

COMPONENT RATINGS

A) SELECTION BIAS

(Q1) Are the individuals (groups, institutions) selected to participate in the study likely to be representative of the target population?

1 Very likely
2 Somewhat likely
3 Not likely
4 Can't tell

(Q2) What percentage of selected individuals (groups, institutions) agreed to participate?

1 80 - 100% agreement
2 60 – 79% agreement
3 less than 60% agreement
4 Not applicable
5 Can't tell

RATE THIS SECTION	STRONG	MODERATE	WEAK
See dictionary	1	2	3

B) STUDY DESIGN

Indicate the study design

1 Randomized controlled trial
2 Controlled clinical trial
3 Cohort analytic (two group pre + post)
4 Case-control
5 Cohort (one group pre + post (before and after))
6 Interrupted time series
7 Other specify _____
8 Can't tell

Was the study described as randomized?

No Yes

If NO, go to component C

If Yes, was the method of randomization described? (see dictionary)

No Yes

If Yes, was the method appropriate? (see dictionary)

No Yes

RATE THIS SECTION	STRONG	MODERATE	WEAK
See dictionary	1	2	3

C) CONFOUNDERS

(Q1) Were there important differences between groups prior to the intervention (or pre to post intervention)?

1 Yes
2 No
3 Can't tell

The following are examples of confounders:

1 Race
2 Sex
3 Marital status / family
4 Age
5 SES (income or class)
6 Education
7 Health status
8 Pre-intervention score on outcome measure

(Q2) Indicate the percentage of relevant confounders that were controlled (either in the design (e.g. stratification, matching) or analysis)?

1 80 – 100%
2 60 – 79%
3 Less than 60%
4 Can't Tell

D)

RATE THIS SECTION	STRONG	MODERATE	WEAK
See dictionary	1	2	3

BLINDING

(Q1) Was (were) the outcome assessor(s) aware of the intervention or exposure status of participants?

1 Yes
2 No
3 Can't tell

(Q2) Were the study participants aware of the research question?

1 Yes
2 No
3 Can't tell

RATE THIS SECTION	STRONG	MODERATE	WEAK
See dictionary	1	2	3

E) DATA COLLECTION METHODS

(Q1) Were data collection tools shown to be valid?

1 Yes
2 No
3 Can't tell

(Q2) Were data collection tools shown to be reliable?

1 Yes
2 No
3 Can't tell

RATE THIS SECTION	STRONG	MODERATE	WEAK
See dictionary	1	2	3

F) WITHDRAWALS AND DROP-OUTS

(Q1) Were withdrawals and drop-outs reported in terms of numbers and reasons per group?

1 Yes
2 No

3 Can't tell
4 Not applicable

(Q2) Indicate the percentage of participants completing the study. (If the percentage differs by groups, record the lowest. For surveys, use response rate on final data collection.)
1 80 -100 %
2 60 - 79 %
3 less than 60 %
5 Can't tell
6 Not applicable (score N/A if the denominator is unknown pre/post-intervention)

RATE THIS SECTION	STRONG	MODERATE	WEAK
See dictionary	1	2	3

G) INTERVENTION INTEGRITY

(Q1) What percentage of participants received the allocated intervention or exposure of interest?
1 80 -100 %
2 60 - 79 %
3 less than 60 %
4 Can't tell

(Q2) Was the consistency of the intervention measured?
1 Yes
2 No
3 Can't tell

(Q3) Is it likely that subjects received an unintended intervention (contamination or co-intervention) that may influence the results?
1 Yes
2 No
3 Can't tell

H) ANALYSES

(Q1) Indicate the unit of allocation (circle one)
community organization/institution practice/office
provider client

(Q2) Indicate the unit of analysis (circle one)

community organization/institution practice/office provider client

(Q3) Are the statistical methods appropriate for the study design?

1 Yes
2 No
3 Can't tell

(Q4) Is the analysis performed by intervention allocation status (i.e. intention to treat) rather than the actual intervention received?

1 Yes
2 No
3 Can't tell
4 Not applicable

The dictionary and further information on this tool is available on the Effective Public Health Practice Program website.{Public Health Research Education and Development Program, 2006 1671 /id}

APPENDIX D - SUMMARY OF INCLUDED IPV PREVENTION STUDIES

Authors	Study Type	Study Population	Intervention	Outcome Measures	Results	Comments	Quality rating
Gadomski et al, 2001	Pre-post with comparison group	Rural county in central New York. Comparison county demographically similar but relatively isolated from media sources.	Used radio and printed advertisements. 4,000 30-second radio ads. 12 weeks of still-image PSAs on local cable TV, 10 newspaper articles, 36 print ads, 15 speaking engagements, 105 bulletin board posters, mailings to community organizations, health facility postings in public areas, women's bathrooms, "palm cards", T-shirt art. Main messages were recognition of domestic violence, the verbal to physical continuum of abuse, effects on health and on	DA="domestic abuse" <u>Importance of issue</u> Feel DA very important issue. Very concerned or concerned about DA in our rural area Know anyone abused by their partner Aware of DA program in community <u>Behavioural intention - scenario</u> If thought next door neighbour was being abused by partner: Talk to abuser Call police Do nothing Talk to victim	Intervention: pre, post (%) Comparison: pre, post (%) p-value I: 78, 84; C: 76, 82; p=0.99 I: 80, 82; C: 76, 79; p=0.75 I: 62, 66; C: 61, 63; p=0.60 I: 45, 47; C: 42, 43; p=0.80 I: 6, 5; C: 9, 9; p=0.58 I: 14, 17; C: 15, 20; p=0.50 I: 46, 40; C: 40, 41; p=0.08	Substantial multiple component intervention. Linked to domestic violence awareness month. Comparison county received an unexpected radio PSA and poster campaign on domestic violence. Generally small or no effects. Breakdown by gender demonstrated greater impact in men than women for some items – authors query if could have been due to gender-neutral ads.	Moderate

Authors	Study Type	Study Population	Intervention	Outcome Measures	Results	Comments	Quality rating
			children, promotion of public disapproval and what actions to take. Messages linked to previous state-wide campaign & training of health care staff on identification, management and referral.	Consult friends Talk to MD/RN Seek advice from local DA agency <u>Behavioural intention</u> In DA, better to leave people alone Victims could leave if they wanted to Victims not responsible for abuse I would call somewhere for help I would personally intervene If I were abused, I would speak to MD	I: 5, 13; C: 12, 15; p=0.04 I: 26, 30; C: 32, 25; p=0.002 I: 3, 6; C: 7, 2; p=0.004 I: 5, 6; C: 9, 11; p=0.59 I: 22, 13; C: 33, 14; p<0.001 I: 57, 54; C: 63, 52; p=0.05 I: 63, 63; C: 63, 52; p=0.20 I: 93, 92; C: 91, 94; p=0.06 I: 46, 49; C: 49, 54; p=0.62 I: 76, 74; C: 82, 75; p=0.15		

Authors	Study Type	Study Population	Intervention	Outcome Measures	Results	Comments	Quality rating
Ryan et al, 2006	Pre-post without control group	Print media – reporters	Development of a domestic violence handbook for reporters. Networking with reporters.	Labelling murders as domestic violence. Change in lead and key sources.	Increase in "domestic violence" label: 51.5%; 87.2% Increase in advocates as lead source: 20%; 42% Decrease in use of victim's family, friends, neighbours: 24%; 11%	Reporting practices seem to have changed. In absence of control community, not clear if this is general trend or related to handbook. Authors note that they used handbook as a catalyst for dialogue with media versus relying simply on the book.	Weak
Fergusson et al, 2006	RCT	Families with new babies screened at higher risk for adverse child outcomes. N=220 intervention families and 223 control families. New Zealand	Home visiting by professional family support workers. Assessment of needs, development of partnership with family, collaborative problem solving, provision of support & mentoring, involvement in preschool years	Mother physically assaulted by partner in the preceding 12 months.	Intervention: 8.7% Control: 7.3% P=0.60	Despite positive child-specific outcomes, no apparent effect on IPV.	Moderate

Authors	Study Type	Study Population	Intervention	Outcome Measures	Results	Comments	Quality rating
Wray et al, 2004	Time series	African American community in U.S.	Dramatic radio serial – 12 90-second PSAs with theory-based educational messages for becoming involved and taking actions with regard to IPV	Series of questions regarding beliefs, attitudes, self-efficacy planned pre-series, during series, and post-series.	In none of the 4 cities did series get played as intended. Net result was little exposure of target population to content. In the one city that did receive some airplay, barely 1% of respondents recalled hearing even half of the PSAs	Appears to have been a well-planned, theory-based intervention tailored for specific target group with good evaluation plan. Failed by depending upon voluntary (non paid) air play Not a measure of effectiveness of because intervention did not actually get implemented.	Weak
Kramer et al, 1998	Cohort analytic	Divorcing couples – 2 court mandated education groups (Florida) vs. none (Alabama)	3-hour education session to learn skills for communicating and interacting with ex-spouse to reduce conflict that their child would be exposed to	Adapted Conflict Tactics Scale scored on a 5-25 scale	All groups decreased over time (3 month post session). No difference in extent of reduction among groups.	Measures of domestic violence relatively low at baseline (8.4-9.9 among groups). Follow-up was only 42% at 3 months in intervention groups.	Weak

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