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Intimate Partner Violence: Prevalence Among U.S. Military Veterans and Active Duty Servicemembers and a Review of Intervention Approaches

EXECUTIVE SUMMARY

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PREFACE

Quality Enhancement Research Initiative's (QUERI's) Evidence-based Synthesis Program (ESP) was established to provide timely and accurate syntheses of targeted healthcare topics of particular importance to Veterans Affairs (VA) managers and policymakers, as they work to improve the health and healthcare of Veterans. The ESP disseminates these reports throughout VA.

QUERI provides funding for four ESP Centers and each Center has an active VA affiliation. The ESP Centers generate evidence syntheses on important clinical practice topics, and these reports help:

- develop clinical policies informed by evidence,
- guide the implementation of effective services to improve patient outcomes and to support VA clinical practice guidelines and performance measures, and
- set the direction for future research to address gaps in clinical knowledge.

In 2009, the ESP Coordinating Center was created to expand the capacity of QUERI Central Office and the four ESP sites by developing and maintaining program processes. In addition, the Center established a Steering Committee comprised of QUERI field-based investigators, VA Patient Care Services, Office of Quality and Performance, and Veterans Integrated Service Networks (VISN) Clinical Management Officers. The Steering Committee provides program oversight, guides strategic planning, coordinates dissemination activities, and develops collaborations with VA leadership to identify new ESP topics of importance to Veterans and the VA healthcare system.

Comments on this evidence report are welcome and can be sent to Nicole Floyd, ESP Coordinating Center Program Manager, at nicole.floyd@va.gov.

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EXECUTIVE SUMMARY

BACKGROUND

In the United States, intimate partner violence (IPV) poses a significant public health burden that affects both men and women. Over a third (35.6%) of women and a fourth (28.5%) of men in the United States have experienced rape, physical violence, or stalking by an intimate partner in their lifetime. Outcomes associated with IPV include a wide range of social, physical, and mental issues such as family dissolution, adverse pregnancy outcomes, mental health issues (depression, posttraumatic stress disorder [PTSD], anxiety), incarceration, and death. IPV affects many facets of society including medical, mental health, social services, and criminal justice systems. Moreover, productivity losses and costs attributable to IPV are significant.

Military service has unique psychological, social, and environmental factors that may contribute to elevated risk of IPV among active duty servicemembers and Veterans. Multiple deployments, family separation and reintegration, demanding workloads at home and while on duty, histories of head trauma, mental illness, and substance abuse can contribute to partner conflict and elevated risk of IPV among active duty servicemembers, Veterans, and their intimate partners.

Currently the VA does not have a comprehensive national program to address IPV. Thus, the VA convened the Domestic Violence Task Force to define the scope of, and design a plan for evaluating domestic violence among Veterans. In order to support the goals and mission of this task force, the Durham VA Evidence-based Synthesis Program conducted a systemic review of the literature to synthesize the evidence on the prevalence of IPV among active duty servicemembers and Veterans and to conduct an evidence synthesis of the systematic review (SR) literature on intervention strategies to address IPV.

Key Question 1. What is the prevalence of intimate partner violence among Veterans and active duty servicemembers, and does the prevalence vary by cohort (e.g., Vietnam era, OEF/OIF/OND era), gender, or race?

Key Question 2. For persons who are at risk for, experience, or commit intimate partner violence, what interventions are associated with decreased exposure to intimate partner violence and its associated physical harms, mental harms, or mortality?

METHODS

This review was commissioned by the VA's Evidence-based Synthesis Program. The topic was nominated after a topic refinement process that included a preliminary review of published peer-reviewed literature, consultation with internal partners and investigators, and consultation with key stakeholders. We further developed and refined the key questions (KQs) based on a preliminary review of published peer-reviewed literature in consultation with VA and non-VA experts.

We used different literature search strategies for KQ 1 and KQ 2. Prevalence of IPV (KQ 1) was approached using primary research articles so that we could compare populations and trends over time. Treatment interventions (KQ 2) were approached through a synthesis of SRs because

there were numerous potential intervention strategies and several current, high-quality SRs available on this topic. For prevalence, we searched MEDLINE® (via PubMed®), CINAHL®, PsycINFO®, and Social Sciences Citation Index (a subset of Web of Science) from inception through December 2012 for peer-reviewed publications providing prevalence rates for IPV. We then updated our PubMed, CINAHL, PsycINFO searches in June 2013. (We did not update the Social Sciences Citation Index in June 2013 because this database did not yield any relevant citations not identified in the other databases during the initial search.) For treatment intervention strategies, we searched PubMed, EMBASE®, CINAHL, PsycINFO, and the Cochrane Database of Systematic Reviews for peer-reviewed SRs from January 2007 through December 2012. We used the National Library of Medicine's Medical Subject Headings (MeSH) keyword nomenclature and text words for populations of interest, types of intimate partner abuse, intervention strategies, and validated search terms for both prevalence statistics and SRs.

Using prespecified inclusion and exclusion criteria, two reviewers assessed titles and abstracts for relevance to the KQs. Full-text systematic reviews identified by either reviewer as potentially relevant were retrieved for further review. Select data from published reports were then abstracted into the final abstraction form by a trained reviewer. All data abstractions were confirmed by a second reviewer. We also abstracted data necessary for assessing study quality. For prevalence studies, we adapted a previously published tool developed to assess the quality of prevalence studies, and for systematic reviews we used a tool adapted from the AMSTAR criteria. Based on these criteria, studies were categorized as good, fair, or poor quality.

DATA SYNTHESIS

To assess prevalence, we critically analyzed the included primary studies to compare their characteristics, methods, and findings. We then determined the feasibility of completing a quantitative synthesis (i.e., meta-analysis) by exploring the volume of relevant literature, the completeness of the results reporting, and the conceptual homogeneity of the studies (or inconsistency across the studies). When a meta-analysis was appropriate, we used random-effects models to quantitatively synthesize the available evidence for prevalence rates. For meta-analysis, we excluded studies that were conducted in special populations, such as cohorts recruited from prenatal clinics and mental health clinics. When studies gave results only by subgroup (males, females), we combined subgroups only when the combined group represented the total study population. We anticipated heterogeneity of effects; thus, we conducted subgroup analyses by key variables hypothesized to influence prevalence estimates (i.e., gender, race, IPV severity, era of service) and pooled subgroup estimates using mixed-effects models where appropriate. We tested for statistical heterogeneity using graphical displays and test statistics (I^2 statistics). We also conducted an influence analysis to assess the individual effects of each included study in the meta-analyses. In an influence analysis, each study is systematically removed one at a time, and a new pooled estimate is calculated to provide an estimate of the pooled prevalence without the study. When quantitative synthesis was not possible (less than three studies), we summarize findings qualitatively. All quantitative analyses were conducted using OpenMeta[Analyst] software (http://www.cebm.brown.edu/open_meta).

For SRs, quantitative analysis was not possible due to the limited number (n=6) and diversity of the included studies and outcomes. Instead, we grouped reviews by intervention strategy

and then summarized the key characteristics, methods, and findings. If findings or conclusions differed importantly across reviews, we analyzed potential reasons for discrepancies such as review inclusion/exclusion criteria, the primary studies included, differences in outcome definition, analytic approach, and conflict of interest. When synthesizing results, we gave more qualitative weight to recent reviews of higher overall quality (e.g., good vs. fair) and to reviews that included higher quality study deigns (e.g., RCTs vs. retrospective observational studies).

RATING THE BODY OF EVIDENCE

In addition to rating the quality of individual studies, we evaluated the overall quality of the evidence for KQ 2. In brief, this approach requires assessment of four domains: risk of bias, consistency, directness, and precision. For risk of bias, we considered study design using the quality assessments of the primary literature reported in the systematic reviews. We used results from meta-analyses when evaluating consistency, precision, strength of association, and whether publication bias was detected.

PEER REVIEW

A draft version of the report was reviewed by technical experts and clinical leadership. A transcript of their comments can be found in the appendix, which elucidates how each comment was considered in the final report.

RESULTS

For prevalence (KQ 1), our search of MEDLINE via PubMed, CINAHL, PsycINFO, and Social Sciences Citation Index, as well as a manual search of relevant review articles, yielded a total of 669 unique citations. After applying inclusion and exclusion criteria at the title-and-abstract and full-text review levels level, we identified 39 articles, representing 25 unique primary studies and 14 companion articles, for data abstraction.

For intervention strategies (KQ 2), our search of MEDLINE via PubMed, EMBASE, CINAHL, PsycINFO, and the Cochrane Database of Systematic Reviews yielded 2486 unique articles. After applying inclusion and exclusion criteria at the title-and-abstract and full-text review levels, we identified 6 SRs of fair or good quality.

Key Question 1. What is the prevalence of intimate partner violence among Veterans and active duty servicemembers, and does the prevalence vary by cohort (e.g., Vietnam era, OEF/OIF/OND era), gender, or race?

Key Points

- The overall prevalence of 12-month IPV perpetration among active duty servicemembers was 22 percent, and victimization was 30 percent. Both estimates had high heterogeneity.
- Among active duty populations, moderator analysis by era of service, IPV severity, and gender all showed group differences, but each pooled subgroup estimate also had high

heterogeneity. Thus, the variability in prevalence is likely due to a combination of factors.

- Of the 12 studies that assessed IPV among Veterans, only 5 assessed IPV perpetration. Populations and outcomes were too heterogeneous to meta-analyze. The prevalence of IPV perpetration within the last year ranged considerably (15% to 60%). However, samples consisted of specialized populations (e.g., Veterans seeking relationship help, newly retuning OEF/OIF Veterans referred to behavioral health) with a high mental health burden, or were gender-specific samples.
- Only eight studies assessed IPV victimization among Veterans. None of these studies provided estimates for male Veterans, and only two provided an estimate of 12-month prevalence; estimates ranged from 7 percent to 12 percent. Among women Veterans, the prevalence of lifetime IPV victimization was 35% percent. The estimate had high heterogeneity, but limited data precluded moderator analysis to query for subgroup differences.

Description of Included Studies

Our evidence synthesis identified 39 articles encompassing 25 unique studies of IPV prevalence among U.S. active duty and Veteran populations. Of the 25 studies, 13 (25 articles) evaluated prevalence among active duty servicemembers and 12 (14 articles) among Veterans. Most of the military studies were assembled from surveys conducted on bases and consisted of broad populations of soldiers and, in some instances, their spousal dependents. The majority of participants in the active duty studies were male and white, with a median age of 28. In contrast, the majority of Veteran studies were conducted among populations exclusively comprising VA users (i.e., clinical samples). Moreover, many Veteran studies were conducted in specialized populations; four were conducted through mental health clinics, one study focused on IPV among World War II prisoners of war, and seven were conducted among gender-specific populations. The majority of participants in the Veteran studies were women and white, with a median age of 46. Most of the 25 studies were rated fair quality; however, a quarter of the Veteran studies were rated poor quality compared with none of the active duty studies. Estimating the pooled prevalence rates of IPV was challenging due to variations in definitions of IPV, measurement instruments used to detect IPV, timing of IPV reports (e.g., 12-month, lifetime), and limitations in available population data across studies. These factors likely contributed to the underlying heterogeneity we found across studies as well as in our summary estimates.

IPV Among Active Duty Servicemembers

We identified 13 studies that assessed IPV prevalence among U.S. active duty populations. Of these, 10 assessed perpetration outcomes and 10 assessed victimization outcomes. The most common metric of IPV across studies was prior exposure to physical violence in last year; thus, we used this outcome to summarize prevalence estimates.

We were able to pool six studies of IPV perpetration in the last year. Pooled estimates yielded a weighted estimated mean prevalence rate of 22 percent (95% confidence interval [CI], 17% to 27%) with significant heterogeneity (I^2>90%). Influence analysis yielded a range of 18 percent to 23 percent for IPV perpetration among active duty servicemembers.

We identified four studies that assessed victimization by physical IPV among active duty servicemembers and that met criteria for a meta-analysis. The 12-month weighted estimated mean prevalence rate of physical IPV victimization of active duty servicemembers yielded a point estimate of 30 percent (95% CI, 17% to 43%) significant heterogeneity (I^2>90%). Influence analysis yielded a range of 25 percent to 33 percent of exposure to IPV victimization of active duty servicemembers.

We conducted subgroup analyses by (1) era of cohort recruitment (pre-2001 versus post-2001), (2) IPV severity, and (3) gender to probe for group differences. All analyses showed group differences, but each pooled subgroup estimate also had high heterogeneity. Variability in prevalence is likely due to a combination of factors, including the small number of pooled studies.

IPV Among Veterans

We identified 12 studies that assessed IPV prevalence among Veterans. In total, five studies assessed perpetration and eight studies assessed victimization. Populations and outcomes were too heterogeneous to meta-analyze across the perpetration studies. Samples comprised specialized populations (e.g., Veterans seeking relationship help, newly returning OEF/OIF Veterans referred to behavioral health) with a high mental health burden, or were gender-specific samples. Moreover, IPV perpetration was defined inconsistently across studies, ranging from physical abuse as measured on the CTS to any form of domestic abuse. Thus, the prevalence of IPV perpetration within the last year ranged considerably (15% to 60%) across these five studies.

Of the eight victimization studies, two reported on sexual violence only and none provided estimates for male Veterans. The most common estimate of exposure to IPV was lifetime abuse; thus, we used lifetime estimates as the main outcome to syntheses theses data. Four of the eight studies were amenable to meta-analysis. The pooled lifetime weighted estimated mean prevalence rate of physical IPV victimization among women Veterans yielded a point estimate of 35 percent (95% CI, 25% to 47%). Influence analysis yielded a range of 30 percent to 41 percent victimization of women Veterans. The overall prevalence estimate had high heterogeneity, but limited data precluded moderation analysis to query for subgroup differences. Two studies reported on also reported on the on the prevalence of IPV victimization in the last year among women Veterans. Prevalence estimates in these two studies ranged from 7 percent to 12 percent.

KEY QUESTION 2. For persons who are at risk for, experience, or commit intimate partner violence, what interventions are associated with decreased exposure to intimate partner violence and its associated physical harms, mental harms, or mortality?

Key Points

- We did not identify any SRs that evaluated primary prevention strategies for IPV.
- Most secondary interventions focused on reducing victimization. Only one SR focused on perpetration and synthesized the evidence for the use of cognitive behavioral therapy (CBT) with male perpetrators of IPV; this study identified one weakly favorable study and otherwise had inconclusive results.

- Standardized IPV screening interventions in health care settings increased the identification of victims of IPV when compared with nonstandard or nonuniversal screening. Screening interventions may decrease recurrence of IPV, though the effect is not sustained over time.
- Multicomponent screening interventions that included institutional support, effective screening protocols, initial and ongoing training of providers, and immediate access to referral services increased rates of IPV screening, disclosure, and identification. Using multicomponent screening interventions also has the potential to increase provider self-efficacy to perform IPV screening.
- Other interventions (counseling and advocacy) showed decreases in IPV victimization; however, the evidence is weak and often inconsistent.
- Secondary intervention research is largely inconclusive and faces many limitations, for several reasons, including high heterogeneity of samples, attrition, short followup periods, weak intervention effects, and small sample sizes.

We identified four good-quality and two fair-quality SRs that evaluated interventions aimed at decreasing exposure to IPV and its associated harms. No primary prevention interventions were identified. All six SRs evaluated studies that were secondary or tertiary interventions focused on populations with prior exposure to IPV. Four SRs compared screening interventions with usual care. Two SRs compared behavioral interventions for female victims with usual care or control groups; one SR examined CBT for male perpetrators of IPV against their female partners. One SR assessed brief, intensive advocacy interventions for female victims versus usual care or control condition. Below we summarize the results of these SRs and the strength of the evidence for these interventions.

Screening for IPV Victimization

Screening women can accurately identify those who have been exposed to IPV, can increase disclosure of IPV victimization, and incurs few adverse effects. Specific results, however, vary by screening tool, populations, and setting. Repeated screenings during pregnancy increase identification of IPV victimization. Screening interventions that included institutional support, ongoing training, and immediate access to referral services significantly increase rates of IPV screening, disclosure, and identification compared with screening interventions using a less comprehensive approach. In an emergency room environment, computerized IPV screening had high feasibility and acceptability. Screening interventions may decrease recurrence of IPV and physical and mental harms associated with IPV, but the evidence is limited. Overall based on multiple studies, there is high strength of evidence that IPV screening can detect women exposed to IPV. There is insufficient to low strength of evidence that IPV screening alone influences all other outcomes (i.e., rates of IPV, IPV-related physical or mental harms, referrals and treatment for IPV, mortality).

Behavioral Interventions

We identified three SRs evaluated behavioral interventions. Two of these synthesized the evidence on behavioral interventions among women exposed to IPV, and one focused on male

perpetrators of IPV. The SR that focused on perpetration synthesized the evidence on CBT for men who abuse their female partners. Compared with nonintervention controls, CBT for men who physically abuse their female partners reduced rates of IPV but did not demonstrate a statistically significant improvement across four RCTs (RR 0.86; 95% CI, 0.54 to 1.38). Overall, the evidence around interventions focusing on reducing and treating perpetration is limited; the strength of evidence is low due to imprecise estimates (wide confidence internals) and inconsistent results across the four included studies.

Of the two SRs that focused on women victims of IPV, one focused on pregnant women and identified four studies, and the other SR identified six RCTs, three of which were conducted in pregnant or postpartum women. Some studies were included in both SRs, thus there were only five unique studies among pregnant or postpartum women across the two SRs. The behavioral interventions tested in these studies were heterogonous and included home visitation, nurse management, unspecified counseling interventions plus resource card, or mentor support. Among pregnant and postpartum women, behavioral interventions that include counseling reduced IPV and improved birth outcomes. However, strength of evidence was graded as insufficient. Across these SRs, there were few studies identified, and the types of behavioral interventions were quite different from each other, which hampered drawing conclusions across this category of interventions.

Advocacy Interventions

We identified one SR that assessed 10 advocacy intervention studies. Again, intervention approaches were heterogeneous and included education and support to enhance provision of legal, housing, and financial advice; promote access and use of community shelters, emergency housing, and psychological interventions; and provide safety planning. Intensive advocacy interventions (>12 hours in duration) for women recruited in domestic violence shelters reduced physical abuse 12 to 24 months postintervention (odds ratio 0.43; 95% CI, 0.43 to 0.83) but not in the year immediately following intervention. Brief interventions (<12 hours) increased the use of safety behaviors. No significant effects were found for mental harm (e.g., PTSD, depression) or use of IPV-related services. There is low strength of evidence that intensive advocacy interventions reduced IPV; results were consistent, but confidence internals were wide.

CLINICAL AND POLICY IMPLICATIONS

Compared with population-based studies conducted in samples not selected for active duty or Veteran status, we report higher rates of 12-month IPV perpetration and victimization among active duty women servicemembers; considerably higher 12-month IPV victimization rates for active duty men; and comparable rates of both 12-month IPV perpetration among active duty men and lifetime IPV victimization among Veteran women. We also found that the 12-month victimization estimate is higher among active duty men than active duty women—a pattern that has also been observed in civilian studies. Some differences between civilian and active duty or Veteran populations can be attributed to dissimilar distribution of population characteristics between the two groups (e.g., age distribution, greater proportion of African Americans and Hispanics among active duty and Veteran populations). However, factors unique to military life such as military deployments that result in family separation and reintegration issues and combat-related health issues (e.g., PTSD, head injuries) likely contribute to relationship stress

and IPV among active duty servicemembers, Veterans, and their intimate partners.

Evidence from our synthesis of SRs assessing IPV interventions demonstrates that standardized IPV screening interventions in a health care setting increases identification of IPV victimization. Moreover, Nelson et al. found minimal adverse effects and low levels of harm related to IPV screening for women receiving health care services. Coupled with the prevalence of IPV we report here, these findings support the need to consider adopting standardized IPV screening for use in the VA. However, our review also highlights the need to take a comprehensive approach to implementing such screening programs in the VA.

Our meta-synthesis finds that multicomponent screening interventions that include institutional support, use effective screening protocols, thorough initial and ongoing training of providers, and immediate access to referral services increase provider use of screening, patient disclosure, and, ultimately, identification of IPV. This finding suggests that establishing a screening program without building provider self-efficacy to screen and establishing sufficient support for referral and treatment mechanism will undermine the effectiveness of IPV screening programs. Our synthesis of the SR literature found some evidence to support behavioral counseling and advocacy interventions for women who screen positive for IPV; however, the evidence was often inconsistent—likely due to the wide variability in strategy, content, and intensity.

While primary care physicians and mental health clinicians may be ideally positioned to implement screening, successful IPV screening programs must also consider educating and enlisting the services of the entire health care team, including other providers, nurses, and social workers, to create a seamless system from screening to timely referral to appropriate services. The development of resource toolkits for clinicians that include (1) appropriate community or Veteran resources, (2) information on local and state laws regarding IPV, and (3) availability of counseling, legal, and advocacy referrals could help overcome some of the provider and institutional barriers to providing IPV screening throughout the VA healthcare system. Due to the sensitive nature of IPV screening, cultural sensitivity and confidentiality concerns would also need to be considered in the development of any IPV screening program. The Institute of Medicine recommends that women be screened about current and past violence and abuse in a culturally sensitive and supportive manner, and assuring patient confidentiality and safety is paramount.

Another consideration when planning an IPV screening program is how often to make assessments. Most screening tools were designed to detect IPV in the previous year. Thus, an annual interval may be optimal. Any screening program will need to consider the optimal use of provider and staff resources in addition to the benefit from screening for IPV victimization obtained from repeated followup screenings.

While the evidence we report here on effectiveness of screening for IPV was conducted among female populations, we also report considerable rates of IPV victimization among male populations. The U.S. armed services and the Veteran healthcare system currently remain largely male in population despite the growing number of female servicemembers and Veterans. The Veterans Health Administration (VHA) provides medical and mental health care for an estimated 8.6 million Veterans each year, and only an estimated 6 percent to 8 percent of the Veterans cared for are women. Indeed, our data suggest that the overall rates of IPV victimization among male active duty servicemembers are at least equal to if not higher than rates of overall IPV

victimization among female active duty servicemembers. However, women are more likely to be injured or murdered as a result of IPV. This fact raises the question of whether IPV screening programs in the VA should be extended to men as well. In constructing a comprehensive national program to address IPV, consideration should be given to the prevalence of IPV victimization and perpetration, the effectiveness of interventions to decrease exposure to IPV and decrease the associated mental and physical harms, the potential benefits and harms of screening, and if universal or women-only screening should be adopted. Currently, a number of organizations recommend some form of screening to detect IPV victimization. Our results broadly support these recommendations; however, our review highlights the need for developing an a priori detailed plan of action for treatment and followup of positive IPV screening results.

RECOMMENDATIONS FOR FUTURE RESEARCH

We used a recommended framework to identify gaps in evidence and classify why these gaps exist (Table 1). This approach considers PICOTS (population, intervention, comparator, outcomes, timing, and setting) to identify gaps and classifies them as due to (1) insufficient or imprecise information, (2) biased information, (3) inconsistency or unknown consistency, and (4) not the right information. VA and other healthcare systems should consider their clinical and policy needs when deciding whether to invest in research to address gaps in evidence. Specific research questions can be evaluated quantitatively, using value-of-information analysis, which uses Bayesian methods to estimate the potential benefits of gathering further information through research.

Table 1. Evidence gaps and future research

Evidence Gap	Reason	Type of Studies to Consider
Limited to no evidence for these populations and behaviors: • Male Veteran IPV perpetration • Male Veteran IPV victimization • Female Veteran IPV victimization in last year • Nationally representative samples of Veterans for both perpetration and victimization	Insufficient information	High-quality cross-sectional studies in broad populations
Studies that address primary prevention of IPV	Insufficient information	RCTs Observational comparative effectiveness studies
Effectiveness of screening techniques to identify males with exposure to IPV *victimization*	Insufficient information	Studies of diagnostic accuracy RCTs Observational comparative effectiveness studies
Effectiveness of screening techniques to identify perpetrators of current or past IPV	Insufficient information	Studies of diagnostic accuracy RCTs
Studies on interventions to reduce IPV in screen-detected populations	Insufficient information	RCTs Observational comparative effectiveness studies

CONCLUSION

Our review highlights that IPV victimization and perpetration are prevalent among active duty servicemembers and Veterans. Overall, IPV screening interventions for women in health care settings increase identification of victimization and appear to be feasible and acceptable. Screening programs are maximized when adequate support for clinicians and screen-detected women are provided. Other secondary prevention interventions provide insufficient evidence to demonstrate significant changes in IPV or IPV-related mental or physical harms. Our review points to gaps in the existing evidence. No identified studies reported on IPV victimization among male Veterans; however, we report high rates of victimization among male active duty servicemembers. Thus, it is likely that male Veterans would also have elevated rates of IPV victimization. Only three studies of IPV among Veterans were conducted among national samples. Many Veteran studies were conducted in specialty mental health clinics or highly selected populations. Future research on IPV should be conducted among nationally representative samples of Veterans. Moreover, we identified no SRs of primary IPV prevention strategies; all SRs summarized literature on secondary prevention strategies (e.g., IPV screening). These findings demonstrate gaps in the evidence; future studies are needed. However, current evidence suggests that screening women for IPV can identify women who have been exposed to IPV. In the absence of strong evidence to support any single strategy to reduce risks associated with IPV in screen-detected populations, behavioral and advocacy interventions should be considered as adjuncts to IPV screening programs because they have some partial impact on IPV-related mental or physical health outcomes and show limited evidence that they are associated with harms.

ABBREVIATIONS TABLE

AMSTAR	measurement tool to assess the methodological quality of systematic reviews
CI	confidence interval
IPV	intimate partner violence
KQ	key question
MeSH	medical subject heading
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OND	Operation New Dawn
PICOTS	population, intervention, comparator, outcome, timing, setting
PTSD	posttraumatic stress disorder
RCT	randomized controlled trial
RD	risk difference
RR	risk ratio
SR	systematic review
VA	Department of Veterans Affairs
VHA	Veterans Health Administration