APPENDIX A. SEARCH STRATEGIES

IPV Prevalence Studies (KQ 1)

Table A-1. Search strategy for PubMed (6/29/2012, updated 7/5/2012, full report 12/11/2012, updated 6/12/2013)

Set #	Terms	Results
1	"Spouse Abuse"[Mesh] OR "Domestic Violence"[Mesh:noexp] OR intimate partner violence[tiab] OR domestic violence[tiab] OR dating violence[tiab] OR partner violence[tiab] OR domestic abuse[tiab] OR partner abuse[tiab]	11674
2	(("Battered Women"[Mesh] OR "Rape"[Mesh] OR "Violence"[Mesh] OR violence[tiab]) OR ((psychological[tiab] OR emotional[tiab] OR /psychology OR physical[tiab]) AND abuse[tiab]) AND ("Spouses"[Mesh] OR sexual partners[mesh] OR marriage[mesh] OR partner[tiab] OR husband[tiab] OR wife[tiab]))	6369
3	#1 OR #2	13186
4	prevalence[Mesh] or prevalence[tiab] or incidence[tiab] OR /statistics and numerical data OR / epidemiology OR statistics[tiab] OR rate[tiab] OR rates[tiab] OR population[tiab]	4090541
5	#3 AND #4	7216
6	"Veterans"[Mesh] OR veteran[tiab] OR veterans[tiab] OR "Veterans Health"[Mesh] OR "Hospitals, Veterans"[Mesh] OR "Military Personnel"[Mesh] OR armed forces[tiab] OR military[tiab] OR army[tiab] OR navy[tiab] OR marines[tiab] OR marine[tiab] OR air force[tiab] OR active duty[tiab]	119652
7	#5 AND #6	134

IPV Systematic Reviews (KQ 2)

Table A-2. Search strategy for PubMed (6/29/2012, updated 7/6/2012, full report 12/11/2012)

Set #	Terms	Results
1	"Spouse Abuse"[Mesh] OR "Domestic Violence"[Mesh:noexp] OR intimate partner violence[tiab] OR domestic violence[tiab] OR dating violence[tiab] OR partner violence[tiab] OR domestic abuse[tiab] OR partner abuse[tiab]	**10789**
2	(("therapy"[Subheading])) OR (therapy OR treatment OR intervention OR rehabilitation[tiab] OR prevention OR prevent[tiab] OR mass screening[mesh] OR screening[tiab] OR "Counseling"[Mesh] OR "Psychotherapy"[Mesh] OR "Mental Health Services"[Mesh] OR "Behavior Control"[Mesh])	**7977561**
3	#1 AND #2 Filters: Systematic Reviews, English	**1404**

APPENDIX B. INCLUDED STUDIES

IPV Prevalence Studies (KQ 1)

Table B-1 presents a key to the primary and companion articles included in the IPV prevalence studies for KQ 1, organized alphabetically by first author.

Table B-1. Primary and companion articles for KQ 1

Primary Article	Companion Article(s)
Bohannon, 1995[1]	None
Campbell, 2003[2]	O'Campo, 2006[3]
Campbell, 2005[4]	Campbell, 2008[5]
Caralis, 1997[6]	None
Coyle, 1996[7]	None
Dichter, 2011[8]	None
Dobie, 2004[9]	None
Dutra, 2012[10]	None
Fonseca, 2006[11]	Schmaling, 2011[12]
Forgey, 2006[13]	Forgey, 2010[14]
Heyman, 1999[15]	Newby, 2003[16] McCarroll, 2000[17] McCarroll, 2010[18]
Luterek, 2011[19]	None
Lutgendorf, 2009[20]	None
Lutgendorf, 2012[21]	None
McCarroll, 2003[22]	None
Merrill, 1998[23]	None
Merrill, 2005[24]	Crouch, 2009[25] Stander, 2011[26]
Newby, 2005[27]	None
O'Donnell, 2006[28]	None
Rosen, 2002[29]	Rosen, 2002[30] Rosen, 2002[31] Rosen, 2003[32]
Sadler, 2003[33]	None
Sayers, 2009[34]	None
Slep, 2010[35]	Foran, 2011[36]
Taft, 2009[37]	None
Teten, 2009[38]	Sherman, 2006[39]

References Cited in Table B-1

1. Bohannon JR, Dosser DA, Jr., Lindley SE. Using couple data to determine domestic violence rates: an attempt to replicate previous work. Violence Vict. 1995;10(2):133-41.
2. Campbell JC, Garza MA, Gielen AC, et al. Intimate Partner Violence and Abuse among Active Duty Military Women. Violence Against Women. 2003;9(9):1072-1092.

3. O'Campo P, Kub J, Woods A, et al. Depression, PTSD, and Comorbidity Related to Intimate Partner Violence in Civilian and Military Women. Brief Treatment and Crisis Intervention. 2006;6(2):99-110.
4. Campbell R, Raja S. The sexual assault and secondary victimization of female veterans: Help-seeking experiences with military and civilian social systems. Psychol Women Q. 2005;29(1):97-106.
5. Campbell R, Greeson MR, Bybee D, et al. The co-occurrence of childhood sexual abuse, adult sexual assault, intimate partner violence, and sexual harassment: a mediational model of posttraumatic stress disorder and physical health outcomes. J Consult Clin Psychol. 2008;76(2):194-207.
6. Caralis PV, Musialowski R. Women's experiences with domestic violence and their attitudes and expectations regarding medical care of abuse victims. South Med J. 1997;90(11):1075-1080.
7. Coyle BS, Wolan DL, Van Horn AS. The prevalence of physical and sexual abuse in women veterans seeking care at a Veterans Affairs Medical Center. Mil Med. 1996;161(10):588-93.
8. Dichter ME, Cerulli C, Bossarte RM. Intimate partner violence victimization among women veterans and associated heart health risks. Womens Health Issues. 2011;21(4 Suppl):S190-4.
9. Dobie DJ, Kivlahan DR, Maynard C, et al. Posttraumatic stress disorder in female veterans: association with self-reported health problems and functional impairment. Arch Intern Med. 2004;164(4):394-400.
10. Dutra L, de Blank G, Scheiderer E, et al. Correlates of Female Veterans' Perpetration of Relationship Aggression. Psychol Trauma. 2012;4(3):323-329.
11. Fonseca CA, Schmaling KB, Stoever C, et al. Variables associated with intimate partner violence in a deploying military sample. Mil Med. 2006;171(7):627-31.
12. Schmaling KB, Blume AW, Russell ML. Intimate Partner Violence and Relationship Dissolution Among Reserve Soldiers. Mil Psychol. 2011;23(6):685-699.
13. Forgey M, Badger L. Patterns of Intimate Partner Violence Among Married Women in the Military: Type, Level, Directionality and Consequences. J Fam Violence. 2006;21(6):369-380.
14. Forgey MA, Badger L. Patterns of intimate partner violence and associated risk factors among married enlisted female soldiers. Violence Vict. 2010;25(1):45-61.
15. Heyman RE, Neidig PH. A comparison of spousal aggression prevalence rates in U.S. Army and civilian representative samples. J Consult Clin Psychol. 1999;67(2):239-42.
16. Newby JH, Ursano RJ, McCarroll JE, et al. Spousal aggression by U.S. Army female soldiers toward employed and unemployed civilian husbands. Am J Orthopsychiatry. 2003;73(3):288-93.
17. McCarroll JE, Ursano RJ, Liu X, et al. Deployment and the probability of spousal aggression by U.S. Army soldiers. Mil Med. 2000;165(1):41-4.
18. McCarroll JE, Ursano RJ, Liu X, et al. Deployment and the Probability of Spousal Aggression by US Army Soldiers. Mil Med. 2010;175(5):352-356.
19. Luterek JA, Bittinger JN, Simpson TL. Posttraumatic Sequelae Associated with Military Sexual Trauma in Female Veterans Enrolled in VA Outpatient Mental Health Clinics. J Trauma Dissociation. 2011;12(3):261-274.
20. Lutgendorf MA, Busch JM, Doherty DA, et al. Prevalence of domestic violence in a pregnant military population. Obstet Gynecol. 2009;113(4):866-72.
21. Lutgendorf MA, Thagard A, Rockswold PD, et al. Domestic violence screening of obstetric triage patients in a military population. J Perinatol. 2012.
22. McCarroll JE, Ursano RJ, Newby JH, et al. Domestic violence and deployment in US Army soldiers. J Nerv Ment Dis. 2003;191(1):3-9.
23. Merrill LL, Hervig LK, Milner JS, et al. Premilitary intimate partner conflict resolution in a navy basic trainee sample. Mil Psychol. 1998;10(1):1-15.
24. Merrill LL, Crouch JL, Thomsen CJ, et al. Perpetration of severe intimate partner violence: premilitary and second year of service rates. Mil Med. 2005;170(8):705-9.
25. Crouch JL, Thomsen CJ, Milner JS, et al. Heterosexual intimate partner violence among Navy personnel: gender differences in incidence and consequences. Mil Psychol. 2009;21:S1-s15.
26. Stander VA, Thomsen CJ, Merrill LL, et al. Gender and Military Contextual Risk Factors for Intimate Partner Aggression. Mil Psychol. 2011;23(6):639-658.

27. Newby JH, Ursano RJ, McCarroll JE, et al. Postdeployment domestic violence by U.S. Army soldiers. Mil Med. 2005;170(8):643-7.

28. O'Donnell C, Cook JM, Thompson R, et al. Verbal and physical aggression in World War II former prisoners of war: role of posttraumatic stress disorder and depression. J Trauma Stress. 2006;19(6):859-66.

29. Rosen LN, Knudson KH, Fancher P. Intimate partner violence among U.S. Army soldiers in Alaska: a comparison of reported rates and survey results. Mil Med. 2002;167(11):ii-iii.

30. Rosen LN, Parmley AM, Knudson KH, et al. Gender differences in the experience of intimate partner violence among active duty U.S. Army soldiers. Mil Med. 2002;167(12):959-63.

31. Rosen LN, Parmley AM, Knudson KH, et al. Intimate partner violence among married male U.S. Army soldiers: ethnicity as a factor in self-reported perpetration and victimization. Violence Vict. 2002;17(5):607-22.

32. Rosen LN, Kaminski RJ, Parmley AM, et al. The effects of peer group climate on intimate partner violence among married male U.S. Army soldiers. Violence Against Women. 2003;9(9):1045-1071.

33. Sadler AG, Booth BM, Cook BL, et al. Factors associated with women's risk of rape in the military environment. Am J Ind Med. 2003;43(3):262-273.

34. Sayers SL, Farrow VA, Ross J, et al. Family problems among recently returned military veterans referred for a mental health evaluation. J Clin Psychiatry. 2009;70(2):163-70.

35. Slep AM, Foran HM, Heyman RE, et al. Unique risk and protective factors for partner aggression in a large scale air force survey. J Community Health. 2010;35(4):375-83.

36. Foran HM, Slep AM, Heyman RE, et al. Prevalences of intimate partner violence in a representative U.S. Air Force sample. J Consult Clin Psychol. 2011;79(3):391-7.

37. Taft CT, Weatherill RP, Woodward HE, et al. Intimate partner and general aggression perpetration among combat veterans presenting to a posttraumatic stress disorder clinic. Am J Orthopsychiatry. 2009;79(4):461-8.

38. Teten AL, Sherman MD, Han X. Violence between therapy-seeking veterans and their partners: prevalence and characteristics of nonviolent, mutually violent, and one-sided violent couples. J Interpers Violence. 2009;24(1):111-27.

39. Sherman MD, Sautter F, Jackson MH, et al. Domestic violence in veterans with posttraumatic stress disorder who seek couples therapy. J Marital Fam Ther. 2006;32(4):479-90.

IPV Systematic Reviews (KQ 2)

1. Choo EK, Ranney ML, Aggarwal N, et al. A systematic review of emergency department technology-based behavioral health interventions. Acad Emerg Med. 2012;19(3):318-28.

2. Nelson HD, Bougatsos C, Blazina I. Screening women for intimate partner violence: a systematic review to update the U.S. Preventive Services Task Force recommendation. Ann Intern Med. 2012;156(11):796-808, W-279, W-280, W-281, W-282.

3. O'Campo P, Kirst M, Tsamis C, et al. Implementing successful intimate partner violence screening programs in health care settings: evidence generated from a realist-informed systematic review. Soc Sci Med. 2011;72(6):855-66.

4. O'Reilly R, Beale B, Gillies D. Screening and intervention for domestic violence during pregnancy care: a systematic review. Trauma Violence Abuse. 2010;11(4):190-201.

5. Ramsay J, Carter Y, Davidson L, et al. Advocacy interventions to reduce or eliminate violence and promote the physical and psychosocial well-being of women who experience intimate partner abuse. Cochrane Database Syst Rev. 2009(3):CD005043.

6. Smedslund G, Dalsbo TK, Steiro AK, et al. Cognitive behavioural therapy for men who physically abuse their female partner. . Cochrane Database of Systematic Reviews 2011, Issue 2. Art. No.: CD006048. DOI: 10.1002/14651858. CD006048.pub2. Cochrane Database Syst Rev. 2007(3):CD006048

APPENDIX C. CRITERIA USED IN QUALITY ASSESSMENT

QUALITY ASSESSMENT FOR IPV PREVALENCE STUDIES (KQ 1)

This tool is intended to evaluate the quality of studies that examined the outcomes of prevalence of IPV. Use this risk of bias tool for the following study designs: prospective/retrospective cohort studies, case-control studies, and cross-sectional studies.

General Instructions: Rate each question below using the response categories listed. Focus on study design and conduct, not quality of reporting. Then, after answering each item, rate the study overall as "low risk of bias" (good quality), "moderate risk of bias" (fair quality) or "high risk of bias" (poor quality) based on the following definitions:

- Low Risk of Bias is a good-quality study and has the least bias, and results are considered valid. These studies will meet the majority of items in each domain.
- Moderate Risk of Bias is a fair-quality study and is susceptible to some bias but probably not enough to invalidate the results. The study may be missing information, making it difficult to assess limitations and potential problems. As the fair-quality category is broad, studies with this rating vary in their strengths and weaknesses. The results of some fair-quality studies are possibly valid, while others are probably valid. These studies will meet the majority of items in most but not all domains.
- High Risk of Bias is a poor-quality study with significant bias that may invalidate the results. These studies have serious errors in design, analysis, or reporting; have large amounts of missing information; or have discrepancies in reporting. The results of a poor-quality study are at least as likely to reflect flaws in the study design as to indicate true differences between the compared interventions.

1. Was the study target population a close representation of the national population in relation to relevant variables (e.g., age, sex)? Focus mainly on eligibility criteria and actual sample assembled. The target population refers to the group of people or entities to which the results of the study will be generalized. Active duty military or Veterans enrolled in VA health services is the target population.

__Yes (LOW RISK): The study target population was a close representation of the national population.

__No (HIGH RISK): The study target population was clearly NOT representative of the national population.

Comments:

2. Was some form of random selection used to select the sample?

__Yes (LOW RISK): Some form of random selection was used to select the sample (e.g., simple random sampling, stratified random sampling, cluster sampling, systematic sampling).

__No (HIGH RISK): Some form of random selection was NOT used to select the sample.

Comments:

3. Was the likelihood of nonresponse bias minimal?

__Yes (LOW RISK): The response rate for the study was ≥70% or an analysis was performed that showed no important difference in relevant demographic characteristics or risk factors for IPV between responders and nonresponders.

__No (HIGH RISK): The response rate was <70%, and if any analysis comparing responders and nonresponders was done, it showed a significant difference in relevant demographic characteristics or risk factors for IPV between responders and nonresponders.

Comments:

4. Was an acceptable case definition used in the study?

__Yes (LOW RISK): An acceptable case definition of IPV was used. An acceptable case definition clearly specifies study definition of IPV such as including type, severity, frequency, and timing.

__No (HIGH RISK): An acceptable case definition of IPV was NOT used. Case definition of IPV lacked details to clearly define type, severity, frequency, and timing of IPV.

Comments:

5. Was the study instrument that measured the parameter of interest (i.e., prevalence of IPV) shown to be valid and reliable?

__Yes (LOW RISK): The study instrument was shown to have reliability and validity (e.g. test-retest, piloting, validation in a previous study). Examples of instruments with these properties include Conflict Tactics Scale, Abuse Assessment Screen.

__No (HIGH RISK): The study instrument was NOT shown to have reliability or validity (e.g., authors developed their own untested tool).

Comments:

6. Was the same mode (e.g., interview, self-administered questionnaire) of data collection used for all subjects?

__Yes (LOW RISK): The same mode of data collection was used for all subjects.

__No (HIGH RISK): The same mode of data collection was NOT used for all subjects.

Comments:

7. Was the length of the shortest prevalence period for the parameter of interest appropriate? (Keep in mind that the longer the prevalence period, the greater the likelihood of the subject forgetting if they experienced the outcome interest.)

__Yes (LOW RISK): The shortest prevalence period for the parameter of interest was appropriate (e.g., one-week prevalence, one-year prevalence).

__No (HIGH RISK): The shortest prevalence period for the parameter of interest was not

appropriate (e.g., lifetime prevalence).

Comments:

8. Were the numerator(s) and denominator(s) for the parameter of interest appropriate?

__Yes (LOW RISK): There were no errors in the reporting of the numerator AND denominator(s). The paper presented appropriate numerator(s) AND denominator(s) for the parameter of interest.

__No (HIGH RISK): There were errors in the reporting of the numerator AND denominator(s). The paper did present numerator(s) AND denominator(s) for the parameter of interest but one or more of these were inappropriate.

__Can't tell. (Use this option when only percentages are given.)

Comments:

9. Were the 95% CIs for the prevalence estimates precise?

__Yes (LOW RISK): Precise estimate (for this outcome, ± 3% is precise; e.g., corresponding to point prevalence of 15% and 12–18 as CI; ± 5% as moderately precise).

__No (HIGH RISK): Imprecise estimate (Greater than ± 5%)

Comments:

Additional Comments:

Table C-1 shows the quality ratings for the IPV prevalence studies (listed alphabetically by primary article's author) included in this evidence report.

Table C-1. Quality assessment for included IPV prevalence studies[a]

Study	Overall Quality Rating	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
Bohannon, 1995	Fair	Yes	No	No	Yes	Yes	Yes	Yes	Can't tell	NR
Campbell, 2003	Fair	Yes	Yes	No	Yes	Yes	Yes	No	Can't tell	NR
Campbell, 2005	Fair	No	Yes	Yes	No	Yes	Yes	No	Yes	NR
Caralis, 1997	Fair	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
Coyle, 1996	Poor	Yes	No	No	Yes	No	Yes	No	Yes	NR
Dichter, 2011	Poor	No	Yes	No	No	No	Yes	No	Yes	NR
Dobie, 2004	Fair	Yes	No	No	No	No	Yes	No	Yes	NR
Dutra, 2012	Fair	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No
Fonseca, 2006	Good	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Forgey, 2006	Fair	Yes	No	No	Yes	Yes	Yes	Yes	Yes	NR
Heyman, 1999	Good	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Luterek, 2011	Fair	Yes	Yes	No	No	Yes	Yes	No	Yes	NR
Lutgendorf, 2009	Fair	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Lutgendorf, 2012	Fair	No	No	Yes	No	Yes	Yes	Yes	Yes	NR
McCarroll, 2003	Good	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	NR
Merrill, 1998	Fair	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Merrill, 2005	Fair	Yes	No	No	Yes	Yes	Yes	Yes	Can't tell	NR
Newby, 2005	Fair	Yes	No	No	Yes	Yes	Yes	Yes	Yes	NR
O'Donnell, 2006	Poor	No	No	No	No	Yes	Yes	No	Can't tell	NR
Rosen, 2002	Good	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	NR
Sadler, 2003	Fair	Yes	Yes	No	No	No	Yes	No	Can't tell	NR
Sayers, 2009	Poor	No	No	Yes	No	No	Yes	Yes	No	No
Slep, 2010	Good	Yes	Yes	No	Yes	Yes	Yes	Yes	Can't tell	NR
Taft, 2009	Fair	No	No	No	Yes	Yes	Yes	Yes	Yes	No
Teten, 2009	Fair	Yes	No	No	Yes	Yes	Yes	Yes	No	NR

[a]Q1=population; Q2=random selection; Q3=nonresponse bias; Q4=case definition; Q5=validity of instrument; Q6=mode of administration; Q7=time period assessed; Q8=numerator and denominator; Q9=95% confidence interval

QUALITY ASSESSMENT FOR IPV SYSTEMATIC REVIEWS (KQ 2)

First determine whether study is a systematic review. To be a systematic review, it must include a methods section that describes (1) a search strategy and (2) an a priori approach to synthesizing the data. For reviews determined to meet the systematic review criteria, assess methodological quality.*

General instructions: The purpose of this rating tool is to evaluate the scientific quality of systematic reviews. It is not intended to measure the literary quality, importance, relevance, originality, or other attributes of systematic reviews.

Step 1: Grade each criterion listed below as "Yes," "No," "Can't tell" or "Not Applicable." Factors to consider when making an assessment are listed under each criterion. Where appropriate (particularly when assigning a "No," or "Can't tell" score), please provide a brief rationale for your decision (in parentheses).

1. **Is a focused clinical question clearly stated?**

   At a minimum, the question should be developed a priori and should clearly identify population and outcomes. The study question does not have to be in PICO format (Population, Intervention, Comparisons, Outcomes).

   [] Yes [] No [] Can't tell [] N/A

2. **Are the search methods used to identify relevant studies clearly described?**

   Search methods should be described in enough detail to permit replication. The report must include search date, databases used, and search terms. (Key words and/or MESH terms must be stated and, where feasible, the search strategy should be provided.)

   [] Yes [] No [] Can't tell [] N/A

3. **Was a comprehensive literature search performed?**

   At least 2 electronic sources should be searched, and electronic searches should be supplemented by consulting reference lists from prior reviews, textbooks, or included studies; specialized registries (e.g., Cochrane registries); or queries to experts in the field.

   [] Yes [] No [] Can't tell [] N/A

4. **Was selection bias avoided?**

   Study should report the number of studies identified through searches, the numbers excluded, and give appropriate reasons for excluding based on explicit inclusion/exclusion criteria. (Look outside of the text. The number of studies excluded, etc., may be provided as a flow diagram or table.)

   [] Yes [] No [] Can't tell [] N/A

5. **Was there duplicate study selection and data extraction?**

   Did two or more raters make inclusion/exclusion decisions, abstract data, and assess study quality—either independently or with one rater overreading the first rater's result? Was an appropriate method used to resolve disagreements (e.g., a consensus procedure)? (If unable to make a definite decision, please mark Can't tell.)

   [] Yes [] No [] Can't tell [] N/A

6. **Were the characteristics of the included studies provided?**

   In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions, and outcomes. The ranges of characteristics in all the studies analyzed (e.g., age, race, sex, relevant socioeconomic data, disease status, duration, severity or other diseases) should be reported. For IPV interventions, the minimum characteristics should include study ID, setting, sex (if not all one sex), intervention strategy description (or if IPV screening, screening tool and reference standard), and list of outcomes or summary of results.

   [] Yes [] No [] Can't tell [] N/A

7. **Was the scientific quality of the included studies assessed and documented?**

   A priori methods of assessment should be provided, and criteria used to assess study quality specified in enough detail to permit replication. It is acceptable if a review references a published scoring method (e.g., Jadad score or AHRQ).

   [] Yes [] No [] Can't tell [] N/A

8. **Were the methods used to combine the findings of studies appropriate?**

   For pooled results, an accepted quantitative method of pooling should be used (i.e., more than simple addition, such as a random-effects or fixed-effect model). For pooled results, a qualitative and quantitative assessment of homogeneity (Cochran's Q and/or I^2) should be performed. If only qualitative analyses are completed, the study should describe the reasons that quantitative analyses were not completed (e.g., heterogeneity in strategies, assessment of outcomes).

   [] Yes [] No [] Can't tell [] N/A

9. **Was the scientific quality of the included studies used appropriately in formulating conclusions?**

   The results of the methodological rigor and scientific quality should be considered in the analysis (e.g., subgroup analyses) and the conclusions of the review, and explicitly stated in formulating recommendations.

   [] Yes [] No [] Can't tell [] N/A

10. **Was publication bias assessed?**

    Publication bias should be tested using a funnel plot, test statistic (e.g., Egger's regression test), or examination of ongoing registries (e.g., clinicaltrials.gov) to search for unpublished studies. If none is specified, mark Can't tell.

    [] Yes [] No [] Can't tell [] N/A

11. **Was the conflict of interest stated?**
    Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.

    [] Yes [] No [] Can't tell [] N/A

12. **Are the stated conclusions supported by the data presented?**
    Were the conclusions made by the author(s) supported by the data and/or analyses reported in the systematic review?

    [] Yes [] No [] Can't tell [] N/A

Step 2: Rate the overall quality of the SR as "Good," "Fair," or "Poor" using the guidance below.

Good = After considering items 1-12, item 12 is rated "Yes" with no important limitations. This means that few of the items 1-12 are rated "No," and none of the limitations are thought to decrease the validity of the conclusions. If items 3, 4, 7, or 8 are rated "no," then the review is likely to have major flaws.

Fair = After considering items 1-12, item 12 is rated "Yes," but with at least some important limitations. This means that enough of the items 1-12 are rated "No" to introduce some uncertainty about the validity of the conclusions.

Poor = After considering items 1-12, item 12 is rated "No." This means that several of items 1-12 are rated "No," introducing serious uncertainty about the validity of the conclusions.

*Adapted from:

1. Shea BJ, Grimshaw JM, Wells GA, et al. Development of AMSTAR: a measurement tool to assess the methodological quality of systematic reviews. BMC Med Res Methodol. 2007;7:10.

2. Moher D, Cook DJ, Eastwood S, et al. Improving the quality of reports of meta-analyses of randomised controlled trials: the QUOROM statement. Quality of Reporting of Meta-analyses. Lancet. 1999;354(9193):1896-900.

3. Marinopoulos SS, Dorman T, Ratanawongsa N, et al. Effectiveness of continuing medical education. Evid Rep Technol Assess (Full Rep). 2007(149):1-69.

Table C-2 shows the quality ratings for the systematic reviews included in this evidence report.

Table C-2. Quality assessment for included systematic reviews

Criteria for grading the quality of a systematic review	Ramsay, 2009	O'Reilly, 2010	O'Campo, 2011	Smedslund, 2011	Choo, 2012	Nelson, 2012
Q1. Is a focused clinical question clearly stated?	Yes	No	Yes	Yes	Yes	Yes
Q2. Are the search methods used to identify relevant studies clearly described?	Yes	Yes	Yes	Yes	Yes	Yes
Q3. Was a comprehensive literature search performed?	Yes	Yes	Yes	Yes	Yes	Yes
Q4. Was selection bias avoided?	Can't tell	Yes	Yes	Yes	Yes	Yes
Q5. Was there duplicate study selection and data extraction?	Yes	Yes	Yes	Yes	Yes	Yes
Q6. Were the characteristics of the included studies provided?	Yes	Yes	No	Yes	Yes	Yes
Q7. Was the scientific quality of the included studies assessed and documented?	Yes	No	Yes	Yes	Yes	Yes
Q8. Were the methods used to combine the findings of studies appropriate?	Yes	Yes	Yes	Yes	Yes	NA
Q9. Was the scientific quality of the included studies used appropriately in making conclusions?	Yes	Yes	Yes	Yes	Yes	Yes
Q10. Was publication bias assessed?	NA	Can't tell	No	Yes	Yes	No
Q11. Was the conflict of interest stated?	Yes	Yes	Can't tell	Yes	Yes	Yes
Q12. Are the stated conclusions supported by the data presented?	Yes	Yes	Can't tell	Yes	Yes	Yes
Overall quality	Good	Fair	Fair	Good	Good	Good

APPENDIX D. PEER REVIEW COMMENTS

Reviewer	Comment	Response
Question 1: Are the objectives, scope, and methods for this review clearly described?		
1	Yes, I think the goals were clear. Framework and two questions were very clear.	Thank you.
2	Yes. This review is timely and important, especially as VHA considers how to best implement screening and treatment interventions to address this common health issue. In particular, this review highlights significant gaps in our understanding of the prevalence, impact, identification, and treatment of IPV among male and female service members and Veterans, particularly those treated in VHA. The review of the evidence for IPV screening interventions to detect IPV victimization suggests that the implementation of a systematic and comprehensive IPV screening, response and treatment programming is a critical "next step" for VHA care. The literature regarding use of aggression is less clear with respect to implications for screening and treatment within VHA, but this review certainly suggests the significant need for additional research addressing these issues in the VHA context to inform the development and implementation of these services.	Thank you.
3	Yes. The authors have done an excellent job of searching the literature, abstracting relevant publications, reviewing the relevant publications, and presenting the summarized findings.	Thank you.
Question 2: Is there any indication of bias in our synthesis of the evidence?		
1	No, and no comments from reviewer 1.	Acknowledged
2	No, The review does not appear biased, but I do have concerns about its comprehensiveness. For KQ2, it is unclear why the authors chose to only evaluate systematic reviews. This seems like a very limited approach as the use of systematic reviews may not capture intervention work published in recent years. Moreover, there are promising psychosocial treatments for victims and perpetrators that are supported by preliminary data that are not reflected in this review. This is a shame because VHA already has some of these treatments readily available or are in a good position to do more with these treatments (e.g., DBT skills based groups for victims, Strength at Home for perpetrators). For example, cognitive processing therapy (CPT) is effective in reducing depression and PTSD among IPV survivors and reduces risk for future IPV victimization. There is also preliminary data published by Taft et al. (2013) presenting preliminary findings on a new intervention designed specifically to reduce IPV among active duty military members and Veterans. Although this work has a small sample size, it is important to note that such evidence is being established. Similarly, the systematic reviews that evaluate screening and treatment interventions do not include a focus on empirically supported treatments for the mental health symptoms and conditions that are commonly associated with IPV victimization (e.g., PTSD).	For KQ 2, we chose to search only systematic reviews because we had identified several high quality reviews. We developed the synthesis of systematic reviews approach in collaboration with our key stakeholders, the VA Domestic Violence Taskforce. They were interested in the state of the evidence on IPV interventions across a wide area of strategies. Thus, we conducted a synthesis of recent good- or fair-quality systematic reviews in support of the VA Domestic Violence Taskforce matched to the capacity of our resources. A review of the primary intervention literature is beyond the scope of this report and the stated needs of our primary stakeholder.

Reviewer	Comment	Response
2	Additional information about the justification for methods used to estimate prevalence would be helpful. I am not an epidemiologist, but my understanding of prevalence is that it is a characteristic of a population that cannot be computed from smaller specific (i.e., clinical) samples. I am also aware that there is a dearth of nationally representative studies examining estimates of IPV in samples of Veterans, which makes it difficult to be able to answer KQ1. I would encourage the authors to provide more detail/discussion with regards to the limitations of their approach and justification regarding why they believe their prevalence estimates represent the prevalence in the full population of Veterans. It would also be helpful to include a discussion regarding the extent to which findings are generalizable to VHA patients vs. general population of Veterans.	In order to decrease heterogeneity across studies included in meta-analyses, we excluded from the quantitative analysis studies conducted in specialized populations (e.g., PTSD clinic populations, Veterans seeking family therapy counseling, gender-specific samples). This is an accepted practice in evidence syntheses. Also, we rated the risk of bias as it pertains to prevalence for each included study. The risk of bias includes questions about representativeness of the sample; studies were downgrade if they were not conducted in representative samples. However, we agree with the reviewer that there are few nationally representative studies of IPV among Veterans. Unfortunately, we did not have sufficient studies to assess subgroup differences by VHA users versus Veterans not recruited through VHA. Of the 12 studies we identified among Veteran populations, only 3 were studies conducted in national samples. Of these three studies, one study assessed only sexual violence during service and could not be included in pooled estimates, and the other study was summarized qualitatively due to insufficient homogeneous studies of IPV perpetration among Veterans. Thus, only one study with a national sampling strategy was eligible for inclusion in the meta-analyses. We conducted an influence analysis to empirically test if that study influenced the overall pooled estimates. The pooled estimate for IPV victimization both with and without this study was 35%. However, we agree that adding details to the report as it pertains to VA users versus Veteran populations not selected from VA users. We have added the number of studies recruited from VA users to our results section and also state a lack of national studies as a research gap. We also now state that results are likely more applicable to VA users in the Applicability section.
3	No, and no comments from reviewer 3.	Acknowledged

Reviewer	Comment	Response
Question 3: Are there any <u>published</u> or <u>unpublished</u> studies that we may have overlooked?		
1	No. Were all of the studies from the National Vietnam Veterans' Readjustment Study included?	We looked for all published, peer-reviewed literature, including those conducted from the National Vietnam Veterans' Readjustment Study. At the reviewer's suggestion, we searched the NVVRS website and did not find any other eligible studies that were not previously included through the systematic review.
2	Yes. It was unclear from the methods why certain VHA clinic/facility based studies met criteria for inclusion in the review (e.g., Sayers et al., 2009) whereas others did not (e.g., Taft, Weatherill, Woodward, Pinto, Watkins, Miller, & Dekel, 2009 for IPV perpetration; Campbell, Greeson, Bybee, & Raja, 2008 as well as Murdoch & Nichol, 1995 for IPV victimization).	We conducted a comprehensive search of the literature and developed a search strategy in collaboration with a master's-level, trained medical librarian with extensive experience in systematic review research. Of the three articles you mention, our search strategy identified two of these (Campbell, Greeson, Bybee, & Raja, 2008; Murdoch & Nichol, 1995, for IPV victimization). Murdoch & Nichol, 1995, consisted of a mixed inpatient and outpatient population. Our protocol states that we would include studies conducted in community or outpatient setting. Thus, this study was excluded. Campbell, Greeson, Bybee, & Raja, 2008 is a companion paper to our included study by Campbell & Raja, 2005. We have now added Campbell, Greeson, Bybee, & Raja, 2008 to our list of included but linked companion articles (refer to Table 3 and Appendix B). Taft, Weatherill, Woodward, Pinto, Watkins, Miller, & Dekel, 2009, was not picked up on our search. We broadened our search so that it would capture this study. In doing so we also identified two other unique studies and have included these in the final report.

Reviewer	Comment	Response
2	Similarly, what is the rationale for combining general Veteran and VHA samples into the prevalence estimate analyses?	Only one study with a national sampling strategy was eligible for inclusion in the meta-analyses. We conducted an influence analysis to empirically test if the inclusion of that study influenced the overall pooled estimates. The pooled estimate for IPV victimization both with and without this study was 35%. However, we agree that adding details to the report as it pertains to VA users versus Veteran populations not selected from VA users. We have added the number of studies recruited from VA users to our results section and also state a lack of national studies as a research gap. We also now state that results are likely more applicable to VA users in the Applicability section.
2	Although the authors report prevalence estimates based on physical IPV, in their review of the Sayers et al. (2009) study the authors indicate that over 60% of the sample partnered, separated, or divorced Afghanistan and Iraq Veterans reported some domestic abuse in the last 6 months. (pg. 33). This study is not adequately interpreted because the 60% includes endorsement of pretty mild forms of psychological aggression (e.g., swearing at a partner), which may be an indicator of conflict as opposed to IPV.	We have added this level of detail to the results section.
2	The authors may also be interested in the DOD-funded report that sheds some light on this question of whether active duty military women are at greater risk for IPV than their civilian counterparts (see pg. 746): http://www.sapr.mil/media/pdf/reports/FY12_DoD_SAPRO_Annual_Report_on_Sexual_Assault-VOLUME_ONE.pdf	Thank you.
2	It was unclear why the authors indicate throughout the review that there were seven studies that assessed IPV victimization. This is misleading and implies more work has been done documenting IPV than actually exists. Three of the seven studies were excluded because they do not assess IPV. Why not just say throughout the review that there were four studies that assessed IPV?	We identified eight studies. All studies reported on some form of IPV; however, not all studies were eligible for inclusion in the meta-analysis due to heterogeneity of outcomes reported or populations surveyed. Two studies included only a highly selective form of IPV, sexual violence by an intimate partner, and were excluded from analysis. One was conducted with a population seeking VA mental health care and was considered a highly selective sample that was not amenable to meta-analysis with other broader populations.

Reviewer	Comment	Response
2	For KQ2, I was not sold on the justification for reviewing only systematic reviews on interventions. The limitations of this methodological limitation need to be fleshed out.	We have added limitation of this methodology to the Limitations section.
3	No. Not to my knowledge. That being said, the literature search strategy may not have detected key publications that were not in the peer reviewed literature, such as government reports, etc. So, you may wish to consult with your librarian about this.	Studies had to be a peer-reviewed publication to be eligible for this review.
Question 4: Please write additional suggestions or comments below. If applicable, please indicate the page and line numbers from the draft report.		
1	There appears to be a lot of redundancy in the report, this may be due to a set template, however the report would be more readable if redundancy were reduced (information repeated up to 3x in different sections. Several minor typos (see below), I am concerned about rating manuscripts not designed to estimate prevalence as good/fair/poor. The methodology around assessment of the SR was appropriate. P. 8 - Please check the 2013 Sourcebook on Women Veterans Healthcare – the current estimate of women using the VA is now 8%. Typos: pg 8 “repot” third paragraph; pg. 30 “as a likely was a source…” (bottom paragraph); pg. 48 “in the active duty” (should it be “on” or “during”) pg. 49 “repot”	We have reduced redundancy, when possible. We have corrected these typos. It is an established systematic review methodology to rate the methodological quality and risk of bias as it pertains to specific outcomes of interest. We used the data reported in the latest version of the Sourcebook on Women Veterans Healthcare dated October 2012 which states that 6% of Veterans using the VA in FY10 were women. However, the Sourcebook also states that the number of Veteran patients has grown by 1% each year to 8% in FY10. Thus, we now state that a range of 6% to 8% of VA users are women.
2	The benefits of classifying studies included in the prevalence estimates and qualitative review as “poor”, “fair”, or “good” are unclear since most of these studies, particularly the clinic-based studies (i.e., Sayers et al., 2009), were not intended to investigate IPV prevalence. In addition to the need for rigorous research to evaluate IPV screening and response interventions for use of IPV, it is critical to review the evidence for psychosocial treatments that address the mental health symptoms and conditions that are associated with IPV because such treatments have implications for reducing IPV risk. For example, there is a body of work highlighting promising approaches to treating women who have experienced IPV that demonstrates improvements in health and safety. VHA has rolled out many evidence-based treatments (i.e., CPT for PTSD and Behavioral Couples Therapy for Substance Use Disorders) that may be helpful in this regard. A review of this evidence was beyond the scope of the current review, which was limited to systematic reviews of treatment interventions specifically designed for “perpetrators” or “victims”. However, such information will be critical to informing VHA treatment planning for Veterans impacted by IPV.	It is an established systematic review methodology to rate the quality and risk of bias as it pertains to specific outcomes of interest. We agree with the reviewer that an evidence synthesis of the psychosocial treatments that address the mental health symptoms and conditions associated with IPV is needed and that such a review is beyond the scope of the current report.

Reviewer	Comment	Response
3	Page 12, Figure 1. You may wish to consider omitting the line from primary IPV prevention intervention to outcomes in that the primary prevention intervention could only affect the outcome via the prevalence (or occurrence) of IPV.	We agree and have deleted this line in the analytic framework.
	Page 17, Quality Assessment section. It appears that poor quality prevalence studies were included in your summary outcomes, but poor quality SRs were omitted. What is the justification for this?	Poor-quality systematic reviews have serious design flaws that make the findings suspect; further, fair- and good-quality reviews were available. Poor-quality primary studies were included because of limited good-quality primary studies, and the effects of these studies on summary estimates can be readily evaluated.
	Page 26, Table 4, I think you may wish to change the capital Ns to non-capital n's since you are dealing with samples rather than populations.	Thank you. We have made this change.
	Page 27, Figure 4, you may wish to retitle this graphic to clarify that it focuses on Physical IPV perpetration (same for Figures 5 and 6, etc.).	We have added text to clarify the figure titles.
	Page 29, Figure 6. You may wish to stratify this analysis based on the gender of the perpetrator. This would take into account past research which has often found that women may perpetrate IPV at higher rates than males, but males perpetrate higher rates of severe IPV (which results in greater injuries, etc.-a finding that you note on page 50). Thus, a stratified analysis may be helpful in untangling this and it could be more informative to health care providers than the current graphic on its own.	The analysis is stratified by gender of the perpetrator.
3	Page 51, Recommendations for Future Research. In this section you recommend that future reviewers of research might wish to use a similar approach as you did. However, you do not really comment on the need for more and better studies of IPV among service members and vets. You could add information on how you envision the "perfect" study given what you've found. What characteristics should it have? And make a case to potential funders why they should fund such a study.	We now have added that it is a research gap and more studies are needed in broad populations. It is beyond the scope of this review to discuss design issues as they pertain to future studies in this area.
Optional Dissemination and Implementation Questions		
Question 5: Are there any clinical performance measures, programs, quality improvement measures, patient care services, or conferences that will be directly affected by this report? If so, please provide detail.		
1	Yes, the report lends support to the recommendations of the VHA IPV Task Force and can inform DOD programs as well.	Thank you.
2	National VHA Domestic Violence Task Force (Co-Chairs: Carol Sheets and Megan Gerber)	Acknowledged
3	I do not know, but I would hope that many of them would use this information.	Acknowledged

Reviewer	Comment	Response
Question 6: Please provide any recommendations on how this report can be revised to more directly address or assist implementation needs.		
1	Again, I wonder if some of the redundancies can be removed? I think it is an outstanding report, the tables are excellent for quick reference and the methodology is very strong. I would consider using a different framework to rate studies reporting prevalence. I understand the concept of restricting estimates from studies that take place in specialized settings, such as mental health clinics, however this excludes many worthwhile VA studies. No VA data is comparable in methodology to general population based data, VA data will always be "clinical" data; estimates from ill populations are always higher than that of the general population. Directions for future research can be broader as well	We have removed redundancies, when possible. We used an established framework for rating the risk of bias for included studies. We also acknowledge that several studies were excluded from quantitative synthesis. When possible and meaningful to the report, we summarized these results qualitatively. We also agree that clinical population may have different estimates than nonclinical samples. In the one analysis that included both clinical and nonclinical study samples, an influence analysis did not reveal any prevalence estimate differences. However, we have added some caveats to the report stating that most of the studies summarized in the report were from clinical populations. Last, we have broadened the future research table.
2	See second point in comment #4.	Acknowledged
3	Circulating the report to health care providers and others providing services to service members and vets would be an important step to solicit such ideas.	Agreed
Question 7: Please provide us with contact details of any additional individuals/stakeholders who should be made aware of this report.		
1	Experts on male IPV – Casey Taft and April Gerlock. You may already have asked them. Several studies did include estimate of males' victimization by female intimate partners (ie Teten 2010).	Thank you.
2	Susan McCutcheon, National MH Director, Family Svc/Women's MH/MST, VHA (Susan.McCutcheon@va.gov) Rachel Latta, IPV Consultant, Mental Health Services, VHA (Rachel.Latta@va.gov) Casey Taft, IPV Content Expert, National Center for PTSD, VA Boston Healthcare System (Casey.Taft@va.gov)	Thank you.
3	The authors may wish to consider creating an abbreviated version of this report for publication in a peer-reviewed journal. Sometimes reports such as this one are overlooked in systematic reviews and this one certainly deserves attention.	Thank you. We plan to develop a manuscript derived from this report.

APPENDIX E. GLOSSARY

Abstract screening

The stage in a systematic review during which titles and abstracts of articles identified in the literature search are screened for inclusion or exclusion based on established criteria. Articles that pass the abstract screening stage are promoted to the full-text review stage.

ClinicalTrials.gov

A registry and results database of federally and privately supported clinical trials conducted in the United States and around the world. ClinicalTrials.gov provides information about a trial's purpose, location, and participant characteristics among other details.

Cochrane Database of Systematic Reviews

A bibliographic database of peer-reviewed systematic reviews and protocols prepared by the Cochrane Review Groups in The Cochrane Collaboration.

Companion article

A publication from a trial that is not the article containing the main results of that trial. It may be a methods paper, a report of subgroup analyses, a report of combined analyses, or other auxiliary topic that adds information to the interpretation of the main publication.

Confidence interval (CI)

The range in which a particular result (such as a laboratory test) is likely to occur for everyone who has a disease. "Likely" usually means 95 percent of the time. Clinical research studies are conducted on only a certain number of people with a disease rather than all the people who have the disease. The study's results are true for the people who were in the study but not necessarily for everyone who has the disease. The CI is a statistical estimate of how much the study findings would vary if other different people participated in the study. A CI is defined by two numbers, one lower than the result found in the study and the other higher than the study's result. The size of the CI is the difference between these two numbers.

Data abstraction

The stage of a systematic review that involves a pair of trained researchers extracting reported findings specific to the research questions from the full-text articles that met the established inclusion criteria. These data form the basis of the evidence synthesis.

DistillerSR

An online application designed specifically for the screening and data extraction phases of a systematic review.

EMBASE

The Excerpta Medica database (EMBASE) produced by Elsevier, a major biomedical and pharmaceutical database indexing over 3500 international journals in the following fields: drug research, pharmacology, pharmaceutics, toxicology, clinical and experimental human

medicine, health policy and management, public health, occupational health, environmental health, drug dependence and abuse, psychiatry, forensic medicine, and biomedical engineering or instrumentation. There is selective coverage for nursing, dentistry, veterinary medicine, psychology, and alternative medicine.

Exclusion criteria

The criteria, or standards, set out before a study or review. Exclusion criteria are used to determine whether a person should participate in a research study or whether an individual study should be excluded in a systematic review. Exclusion criteria may include age, previous treatments, and other medical conditions.

Full-text review

The stage of a systematic review in which a pair of trained researches evaluates the full-text of study articles for potential inclusion in the review.

Heterogeneity

The variation in study outcomes between studies. The I^2 statistic describes the percentage of variation across studies that is due to heterogeneity rather than chance (Higgins and Thompson, 2002; Higgins et al., 2003). $I^2 = 100\% * (Q\text{-}df)/Q$. I^2 is an intuitive and simple expression of the inconsistency of studies' results. When I^2 is high, there is too much variability in study results to draw any firm conclusions.

Inclusion criteria

The criteria, or standards, set out before the systematic review. Inclusion criteria are used to determine whether an individual study can be included in a systematic review. Inclusion criteria may include population, study design, sex, age, type of disease being treated, previous treatments, and other medical conditions.

PRISMA

Preferred Reporting Items for Systematic Reviews and Meta-Analyses, an evidence-based minimum set of items for reporting in systematic reviews and meta-analyses.

Publication bias

The tendency of researchers to publish experimental findings that have a positive result, while not publishing the findings when the results are negative or inconclusive. The effect of publication bias is that published studies may be misleading. When information that differs from that of the published study is not known, people are able to draw conclusions using only information from the published studies.

PubMed®

A database of citations for biomedical literature from MEDLINE®, life science journals, and online books in the fields of medicine, nursing, dentistry, veterinary medicine, the healthcare system, and preclinical sciences.

Randomized controlled trial

A prospective, analytical, experimental study using primary data generated in the clinical environment. Individuals similar at the beginning of the trial are randomly allocated to two or more treatment groups and the outcomes the groups are compared after sufficient followup time. Properly executed, the RCT is the strongest evidence of the clinical efficacy of preventive and therapeutic procedures in the clinical setting.

Risk

A way of expressing the chance that something will happen. It is a measure of the association between exposure to something and what happens (the outcome). Risk is the same as probability, but it usually is used to describe the probability of an adverse event. It is the rate of events (such as breast cancer) in the total population of people who could have the event (such as women of a certain age).

Statistical significance

A mathematical technique to measure whether the results of a study are likely to be true. Statistical significance is calculated as the probability that an effect observed in a research study is occurring because of chance. Statistical significance is usually expressed as a P-value. The smaller the P-value, the less likely it is that the results are due to chance (and more likely that the results are true). Researchers generally believe the results are probably true if the statistical significance is a P-value less than 0.05 ($p<.05$).

Strength of evidence (SOE)

A measure of how confident reviewers are about decisions that may be made based on a body of evidence. SOE is evaluated using one of four grades: (1) *High* confidence that the evidence reflects the true effect; further research is very unlikely to change reviewer confidence in the estimate of effect; (2) *moderate* confidence that the evidence reflects the true effect; further research may change the confidence in the estimate of effect and may change the estimate; (3) *low* confidence that the evidence reflects the true effect; further research is likely to change the confidence in the estimate of effect and is likely to change the estimate; and (4) *insufficient*; the evidence either is unavailable or does not permit a conclusion.

Systematic review

A summary of the clinical literature. A systematic review is a critical assessment and evaluation of all research studies that address a particular clinical issue. The researchers use an organized method of locating, assembling, and evaluating a body of literature on a particular topic using a set of specific criteria. A systematic review typically includes a description of the findings of the collection of research studies. The systematic review may also include a quantitative pooling of data, called a meta-analysis.