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Evidence Brief: Suicide Prevention in Veterans

Supplemental Materials

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Prepared for:
Department of Veterans Affairs
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VA HEALTH CARE Defining EXCELLENCE in the 21st Century

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SEARCH STRATEGIES

1. Database Search (limited to 2015 forward) **Date Searched: 5/29/18**	
Sources:	**Evidence:**
MEDLINE via PubMed	Database: PubMed Search Strategy: --- 1 (("Suicide"[Mesh]) OR "Suicidal Ideation"[Mesh]) OR "Suicide, Attempted"[Mesh] OR (suicide[Title/Abstract] OR suicidal[Title/Abstract] OR suicidality[Title/Abstract] OR parasuicide[Title/Abstract] OR self-harm[Title/Abstract] OR "self-directed violence"[Title/Abstract] OR parasuicidal[Title/Abstract]) NOT "non-suicidal self injury"[Title/Abstract]) (84351) 2 ("prevention and control" [Subheading] OR "Tertiary Prevention"[Mesh] OR "Secondary Prevention"[Mesh] OR "Primary Prevention"[Mesh] OR (prevent*[Title/Abstract] OR control[Title/Abstract])) (4088706) 3 ((((("Risk"[Mesh]) OR "Risk Reduction Behavior"[Mesh]) OR "Risk Assessment"[Mesh]) OR "Risk Factors"[Mesh]) OR "Mass Screening"[Mesh]) OR "Validation Studies" [Publication Type] OR (risk[Title] OR screening[Title] OR screen[Title] OR assessment[Title] OR assessments[Title] OR questionnaire[Title] OR questionnaires[Title] OR instrument[Title] OR instruments[Title] OR tool[Title] OR tools[Title] OR scale[Title] OR scales[Title] OR measure[Title] OR measures[Title] OR correlate*[Title] OR “risk-stratification”[Title] OR predict[Title] OR predicts[Title] OR predictor[Title] OR predictors[Title]) OR (((((((ReACT Self Harm Rule[Title/Abstract]) OR Suicidal Ideation Attributes Scale[Title/Abstract]) OR Suicide Trigger Scale[Title/Abstract]) OR Cultural Assessment of Risk for suicide[Title/Abstract]) OR Affective Intensity Rating Scale[Title/Abstract]) OR Columbia Suicide Severity Rating Scale[Title/Abstract]) OR Edinburgh Risk of Repetition Scale[Title/Abstract]) OR Manchester Self Harm tool[Title/Abstract]) (2002667) 4 ((((("Letter" [Publication Type]) OR "Editorial" [Publication Type]) OR "Comment" [Publication Type]) (1630455) 5 1 AND 2 AND 3 NOT 4 (7504) 6 Filters: Publication date from 2015/09/11 to 2018/12/31; Humans; English; Adult: 19+ years (645) **********
PsycINFO	Database: PsycINFO <1806 to May Week 3 2018> Search Strategy: --- 1 suicide/ or attempted suicide/ or suicidal ideation/ (35165) 2 (suicide or suicidal or suicidality or parasuicide or self-harm or "self-directed violence" or parasuicidal).mp. (61684) 3 1 or 2 (61684) 4 exp Suicide Prevention/ or prevention.mp. or exp Suicide Prevention Centers/ (124488) 5 exp Risk Assessment/ or risk.mp. or exp Risk Factors/ (330836) 6 (risk or screening or screen or assessment or assessments or questionnaire or questionnaires or instrument or instruments or tool or tools or scale or scales or measure or measures or correlate* or "risk stratification" or predict or predicts or predictor or predictors).mp. (1734831) 7 ReACT Self Harm Rule.mp. (5) 8 Suicidal Ideation Attributes Scale.mp. (6) 9 Suicide Trigger Scale.mp. (9) 10 Cultural Assessment of Risk for suicide.mp. (9)

	11 Affective Intensity Rating Scale.mp. (3) 12 Columbia Suicide Severity Rating Scale.mp. (511) 13 Edinburgh Risk of Repetition Scale.mp. (2) 14 Manchester Self Harm tool.mp. (0) 15 or/5-14 (1734831) 16 4 or 15 (1783173) 17 3 and 16 (39797) 18 limit 17 to (peer reviewed journal and human and english language and treatment & prevention and adulthood <18+ years> and yr="2015 -Current") (1425) **********
CCRCT: Cochrane Central Registrar of Controlled Trials	Database: EBM Reviews - Cochrane Central Register of Controlled Trials <April 2018> Search Strategy: --- 1 suicide/ or attempted suicide/ or suicidal ideation/ (730) 2 (suicide or suicidal or suicidality or parasuicide or self-harm or "self-directed violence" or parasuicidal).mp. (3266) 3 1 or 2 (3266) 4 exp Suicide Prevention/ or prevention.mp. or exp Suicide Prevention Centers/ (68915) 5 exp Risk Assessment/ or risk.mp. or exp Risk Factors/ (148353) 6 (risk or screening or screen or assessment or assessments or questionnaire or questionnaires or instrument or instruments or tool or tools or scale or scales or measure or measures or correlate* or "risk stratification" or predict or predicts or predictor or predictors).mp. (454558) 7 ReACT Self Harm Rule.mp. (0) 8 Suicidal Ideation Attributes Scale.mp. (0) 9 Suicide Trigger Scale.mp. (0) 10 Cultural Assessment of Risk for suicide.mp. (0) 11 Affective Intensity Rating Scale.mp. (0) 12 Columbia Suicide Severity Rating Scale.mp. (100) 13 Edinburgh Risk of Repetition Scale.mp. (0) 14 Manchester Self Harm tool.mp. (0) 15 or/5-14 (454558) 16 4 or 15 (484495) 17 3 and 16 (2673) 18 limit 17 to (yr="2015 -Current" and english language) (1001) **********
SocINDEX	Database: SocINDEX with Full Text Search Strategy: --- S1 TI suicide OR suicidal OR suicidality OR parasuicide OR self-harm OR "self directed violence" OR parasuicidal (7607) S2 DE "HEALTH risk assessment" OR DE "SUICIDAL behavior -- Risk factors" (2009) S3 DE "SUICIDE" OR DE "SUICIDAL behavior" (3799) S4 DE "SUICIDE prevention" OR DE "PREVENTIVE medicine" (1878) S5 TI prevent* OR control OR risk OR screen OR screen OR assessment OR assessments OR questionnaire OR questionnaires OR instrument OR instruments OR tool OR tools OR scale OR scales OR measure OR measures OR correlate* OR "risk-stratification" OR predict OR predicts OR predictor OR predictors (536895) S6 S1 OR S3 (8273) S7 S2 OR S4 OR S5 (537472)

	S8 S6 AND S7 (4375) S9 Limiters - Date of Publication: 20150101-20181231 (713) **********

2. Grey Literature Search (limited to 2015 forward) **Date Searched: 6/14/18**	
Source:	**Evidence:**
Conferences and Organizations:	
American Association of Suicidology	http://www.suicidology.org/
DOD VA Suicide Prevention Conference	http://www.suicideoutreach.org
International Suicide Summit	http://www.suicide-research.org/
American Foundation of Suicide Prevention	https://www.afsp.org/
Military Suicide Research Consortium	https://msrc.fsu.edu/
The Mental Illness Research, Education and Clinical Centers (MIRECC)	http://www.mirecc.va.gov/
Study To Assess Risk & Resilience In Servicemembers — Longitudinal Study (STARRS-LS)	http://starrs-ls.org/#/list/publications
Other Sources:	
ClinicalTrials.gov	http://clinicaltrials.gov
NIH RePORTER	http://projectreporter.nih.gov/reporter.cfm
Journals Searched Individually:	
Depression and Anxiety	http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291520-6394
JAMA Psychiatry	http://archpsyc.jamanetwork.com/Solr/advancedSearch.aspx
Injury Prevention	http://injuryprevention.bmj.com/search
Suicide and Life-threatening Behavior	http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291943-278X
Journal of Affective Disorders	http://www.jad-journal.com/search/advanced?seriesIssn=0165-0327&searchType=advanced&journalCode=jad

Psychiatry: Interpersonal and Biological Processes	http://www.tandfonline.com/loi/upsy20#.VTEnqpPVr0w

3. Update Search for MOMRP and MSRC Studies Date Searched: 8/29/18	
Sources:	**Evidence:**
MEDLINE via PubMed	Database: PubMed Search Strategy: ---------- 1 ("Military Operational Medicine Research Program") OR ("Military Suicide Research Consortium") (115) **********
Military Operational Medicine Research Program	https://momrp.amedd.army.mil/
Military Suicide Research Consortium	https://msrc.fsu.edu/

LIST OF EXCLUDED STUDIES

Exclude reasons: B= Background, 1=Ineligible population (*eg*, not Veteran/DoD), 2=Ineligible intervention (*eg*, not specifically targeting suicide), 3=Ineligible comparator, 4=Ineligible outcome, 5=Ineligible setting, 6=Ineligible study design (*eg*, case report), 7=Ineligible publication type (*eg*, editorial, narrative review) 8=Outdated or ineligible systematic review, 10=Included in previous ESP review

#	Citation	Exclude reason
1.	Barnes SM, Bahraini NH, Forster JE, et al. Moving beyond self-report: Implicit associations about death/life prospectively predict suicidal behavior among veterans. Suicide Life Threat Behav. 2017;47(1):67-77.	E4
2.	Barnes SM, Monteith LL, Gerard GR, Hoffberg AS, Homaifar BY, Brenner LA. Problem-solving therapy for suicide prevention in veterans with moderate-to-severe traumatic brain injury. Rehabilitation Psychology. 2017;62(4):600-608.	E4
3.	Bernecker SL, Rosellini AJ, Nock MK, et al. Improving risk prediction accuracy for new soldiers in the U.S. Army by adding self-report survey data to administrative data. BMC Psychiatry. 2018;18(1):87.	E4
4.	Baucom BRW, Georgiou P, Bryan CJ, et al. The Promise and the Challenge of Technology-Facilitated Methods for Assessing Behavioral and Cognitive Markers of Risk for Suicide among U.S. Army National Guard Personnel. Int J Environ Res Public Health. 2017;14(4):. Epub 2017 Mar 2031 doi:2010.3390/ijerph14040361.	E4
5.	Blount T, Fredman SJ, Pukay-Martin ND, Macdonald A, Monson CM. Cognitive-behavioral conjoint therapy for PTSD: application to an Operation Enduring Freedom veteran. Cognitive and Behavioral Practice. 2015;22(4):458-467.	E6
6.	Brenner L, Barnes S, Monteith L, et al. Evaluating the acceptability and feasibility of problem-solving therapy for suicide prevention among veterans with moderate-to-severe TBI. Brain Injury. 2016; 30(5-6):718-719.	E4
7.	Brenner L, Simpson G. Two promising evidence-based interventions for suicide prevention among veterans with moderate-to-severe TBI. Brain Injury. 2017;31(6-7):805.	E4
8.	Britton PC, Bohnert KM, Ilgen MA, Kane C, Stephens B, Pigeon WR. Suicide mortality among male veterans discharged from Veterans Health Administration acute psychiatric units from 2005 to 2010. Soc Psychiatry Psychiatr Epidemiol. 2017;52(9):1081-1087.	E4
9.	Brown GK, Karlin BE, Trockel M, Gordienko M, Yesavage J, Taylor C. Effectiveness of cognitive behavioral therapy for veterans with depression and suicidal ideation. *Archives of Suicide Research.* 2016;20(4):677-682.	E4
10.	Brown GR, Jones KT. Mental health and medical health disparities in 5135 transgender veterans receiving healthcare in the Veterans' Health Administration: A case-control study. LGBT Health. 2016;3(2):122-131.	E2
11.	Bryan CJ, Rudd MD, Wertenberger E. Individual and environmental contingencies associated with multiple suicide attempts among U.S. Military personnel. Psychiatry Res. 2016;242:88-93.	E4
12.	Bucy RA, Hanisko KA, Kamphuis LA, Nallamothu BK, Iwashyna TJ, Pfeiffer PN. Suicide risk management protocol in post-cardiac arrest survivors: development, feasibility, and outcomes. Ann Am Thorac Soc. 2017;14(3):363-367.	E1
13.	Bush NE, Dobscha SK, Crumpton R, et al. A virtual hope box smartphone app as an accessory to therapy: proof-of-concept in a clinical sample of veterans. Suicide Life Threat Behav. 2015;45(1):1-9.	E4
14.	Bush NE, Smolenski DJ, Denneson LM, Williams HB, Thomas EK, Dobscha SK. A virtual hope box: randomized controlled trial of a smartphone app for emotional regulation and coping with distress. Psychiatr Serv. 2017;68(4):330-336.	E4

15.	Christofferson DE, Hamlett-Berry K, Augustson E. Suicide prevention referrals in a mobile health smoking cessation intervention. American Journal of Public Health. 2015;105(8):e7-e9.	E4
16.	Chu C, Podlogar M, Hagan CR, et al. The Interactive Effects of the Capability for Suicide and Major Depressive Episodes on Suicidal Behavior in a Military Sample. Cognit Ther Res. 2016;40(1):22-30. Epub 2015 Sep 2029 doi:2010.1007/s10608-10015-19727-z.	E4
17.	Copeland LA, Finley EP, Bollinger MJ, Amuan ME, Pugh MJ. Comorbidity correlates of death among new veterans of Iraq and Afghanistan deployment. Med Care. 2016;54(12):1078-1081.	E2
18.	Cox KS, Mouilso ER, Venners MR, et al. Reducing suicidal ideation through evidence-based treatment for posttraumatic stress disorder. Journal of Psychiatric Res. 2016;80:59-63.	E2
19.	Currier GW, Brown GK, Brenner LA, et al. Rationale and study protocol for a two-part intervention: safety planning and structured follow-up among veterans at risk for suicide and discharged from the emergency department. Contemporary Clinical Trials. 2015;43:179-184.	E7
20.	Deutsch AM, Lande RG. The reasons for living scale-military version: assessing protective factors against suicide in a military sample. Mil Med. 2017;182(7):e1681-e1686.	E4
21.	Finley EP, Bollinger M, Noël PH, et al. A national cohort study of the association between the polytrauma clinical triad and suicide-related behavior among US veterans who served in Iraq and Afghanistan. American Journal of Public Health. 2015;105(2):380-387.	E4
22.	Gallegos AM, Streltzov NA, Stecker T. Improving treatment engagement for returning Operation Enduring Freedom and Operation Iraqi Freedom veterans with posttraumatic stress disorder, depression, and suicidal ideation. Journal of Nervous and Mental Disease. 2016;204(5):339-343.	E4
23.	Galynker I, Yaseen ZS, Briggs J, Hayashi F. Attitudes of acceptability and lack of condemnation toward suicide may be predictive of post-discharge suicide attempts. *BMC Psychiatry Vol 15 2015, ArtID 87.* 2015;15.	E1
24.	Harmon LM, Cooper RL, Nugent WR, Butcher JJ. A review of the effectiveness of military suicide prevention programs in reducing rates of military suicides. *Journal of Human Behavior in the Social Environment.* 2016;26(1):15-24.	E8
25.	Jones N, Fear N, Wessely S, Thandi G, Greenberg N. Forward psychiatry-early intervention for mental health problems among UK armed forces in Afghanistan. Eur. Psychiatry. 2017;39:66-72.	E4
26.	Karras E, Lu N, Elder H, et al. Promoting help seeking to veterans: a comparison of public messaging strategies to enhance the use of the veteran's crisis line. Crisis: The Journal of Crisis Intervention and Suicide Prevention. 2017;38(1):53-62.	E4
27.	Kasckow J, Zickmund S, Gurklis J, et al. Using telehealth to augment an intensive case monitoring program in veterans with schizophrenia and suicidal ideation: a pilot trial. Psychiatry Res. 2016;239:111-116.	E1
28.	Kline A, Chesin M, Latorre M, et al. Rationale and study design of a trial of mindfulness-based cognitive therapy for preventing suicidal behavior (MBCT-S) in military veterans. Contemporary Clinical Trials. 2016;50:245-252.	E7
29.	Lehavot K, Simpson TL, Shipherd JC. Factors associated with suicidality among a national sample of transgender veterans. Suicide Life Threat Behav. 2016;46(5):507-524.	E4
30.	Logan J, Bohnert A, Spies E, Jannausch M. Suicidal ideation among young Afghanistan/Iraq war veterans and civilians: individual, social, and environmental risk factors and perception of unmet mental healthcare needs, United States, 2013. Psychiatry Res. 2016;245:398-405.	E4
31.	Lopez-Castroman J, Jaussent I, Gorwood P, Courtet P. Suicidal depressed patients respond less well to antidepressants in the short term. Depression and Anxiety. 2016;33(6):483-494.	E1

32.	Marriott BP, Hibbeln JR, Killeen TK, et al. Design and methods for the better resiliency among veterans and non-veterans with omega-3's (BRAVO) study: a double blind, placebo-controlled trial of omega-3 fatty acid supplementation among adult individuals at risk of suicide. Contemporary Clinical Trials. 2016;47:325-333.	E2
33.	Matarazzo BB, Farro SA, Billera M, Forster JE, Kemp JE, Brenner LA. Connecting veterans at risk for suicide to care through the home program. Suicide Life Threat Behav. 2017;47(6):709-717.	E4
34.	McCarthy JF, Bossarte RM, Katz IR, et al. Predictive modeling and concentration of the risk of suicide: implications for preventive interventions in the US Department of Veterans Affairs. *American Journal of Public Health.* 2015;105(9):1935-1942.	E10
35.	Mezuk B, Lohman M, Leslie M, Powell V. Suicide risk in nursing homes and assisted living facilities: 2003-2011. American Journal of Public Health. 2015;105(7):1495-1502.	E1
36.	Monteith LL, Bahraini NH, Matarazzo BB, Soberay KA, Smith CP. Perceptions of institutional betrayal predict suicidal self-directed violence among veterans exposed to military sexual trauma. J Clin Psychol. 2016;72(7):743-755.	E4
37.	Naifeh JA, Nock MK, Ursano RJ, et al. Neurocognitive function and suicide in U.S. Army soldiers. Suicide Life Threatening Behav. 2017;47(5):589-602.	E4
38.	Helson H, Denneson L, Low A, Bauer B, O'Neil M, Kansagara D, Teo A. Systematic Review of Suicide Prevention in Veterans. VA ESP Project #05-225; 2015.	B
39.	Pease JL, Billera M, Gerard G. Military culture and the transition to civilian life: suicide risk and other considerations. Social Work. 2016;61(1):83-86.	E7
40.	Pigeon WR, Funderburk J, Bishop T, Crean H, Titus C. Results of a pilot RCT comparing brief CBT-I to treatment as usual in primary care patients endorsing suicidal ideation. Sleep Conference: 30th Annual Meeting of the Associated Professional Sleep Societies, LLC, SLEEP. 2016;39.	E7
41.	Pittman JO, Floto E, Lindamer L, Baker DG, Lohr JB, Afari N. VA Escreening program: technology to improve care for post-9/11 veterans. Psychological Services. 2017;14(1):23-33.	E4
42.	Possemato K, Bergen-Cico D, Treatman S, Allen C, Wade M, Pigeon W. A randomized clinical trial of primary care brief mindfulness training for veterans with PTSD. J Clin Psychol. 2016;72(3):179-193.	E4
43.	Predmore Z, Ramchand R, Ayer L, et al. Expanding suicide crisis services to text and chat: responders' perspectives of the differences between communication modalities. Crisis: The Journal of Crisis Intervention and Suicide Prevention. 2017;38(4):255-260.	E1
44.	Resick PA, Wachen JS, Dondanville KA, et al. Effect of group vs individual cognitive processing therapy in active-duty military seeking treatment for posttraumatic stress disorder: a randomized clinical trial. JAMA Psychiatry. 2017;74(1):28-36.	E2
45.	Riblet N, Shiner B, Mills P, Rusch B, Hemphill R, Watts BV. Systematic and organizational issues implicated in post-hospitalization suicides of medically hospitalized patients: A study of root-cause analysis reports. General hospital psychiatry. 2017;46:68-73.	E4
46.	Rosellini AJ, Street AE, Ursano RJ, et al. Sexual assault victimization and mental health treatment, suicide attempts, and career outcomes among women in the US Army. American Journal of Public Health. 2017;107(5):732-739.	E4
47.	Rudd M, Bryan CJ, Wertenberger EG, et al. Brief cognitive-behavioral therapy effects on post-treatment suicide attempts in a military sample results of a randomized clinical trial with 2-year follow-up. *Am J Psychiatry.* 2015;172(5):441-449.	E10
48.	Schuman DL, Schuman DL. A value-critical choice analysis of a policy to prevent suicide in veterans and service members. Soc Work Public Health. 2016;31(6):537-548.	E6

49.	Shelef L, Tatsa-Laur L, Derazne E, Mann JJ, Fruchter E. An effective suicide prevention program in the Israeli Defense Forces: a cohort study. Eur Psychiatry. 2016;31:37-43.	E1
50.	Stanley B, Brown GK, Currier GW, Lyons C, Chesin M, Knox KL. Brief intervention and follow-up for suicidal patients with repeat emergency department visits enhances treatment engagement. American Journal of Public Health. 2015;105(8):1570-1572.	E4
51.	Stanley B, Chaudhury SR, Chesin M, et al. An emergency department intervention and follow-up to reduce suicide risk in the VA: acceptability and effectiveness. Psychiatr Serv. 2016;67(6):680-683.	E4
52.	Stein MB, Ware EB, Mitchell C, et al. Genomewide association studies of suicide attempts in US soldiers. Am J Med Genet. 2017;174(8):786-797.	E4
53.	Tolliver B, Marriott B, Hibbeln J, et al. Comparison of the implicit association test with established clinical rating scales in suicide risk assessment: baseline data from the better resiliency among veterans and non-veterans with omega-3 s (bravo) study. Neuropsychopharmacology Conference: 55th Annual Meeting of the American College of Neuropsychopharmacology, ACNP. 2016;41:S487-S488.	E1
54.	Tripp JC, McDevitt-Murphy ME. Trauma-related guilt mediates the relationship between posttraumatic stress disorder and suicidal ideation in OEF/OIF/OND veterans. Suicide Life Threat Behav. 2017;47(1):78-85.	E4
55.	Ursano RJ, Kessler RC, Stein MB, et al. Medically documented suicide ideation among U.S. Army soldiers. Suicide Life Threat Behav. 2017;47(5):612-628.	E4
56.	Villatte JL, O'Connor SS, Leitner R, Kerbrat AH, Johnson LL, Gutierrez PM. Suicide Attempt Characteristics Among Veterans and Active-Duty Service Members Receiving Mental Health Services: A Pooled Data Analysis. Mil Behav Health. 2015;3(4):316-327. Epub 2015 Sep 2018 doi:2010.1080/21635781.21632015.21093981.	E4
57.	Wolfe-Clark AL, Bryan CJ. Integrating two theoretical models to understand and prevent military and veteran suicide. Armed Forces & Society. 2017;43(3):478-499.	E6
58.	Zimmerman L, Villatte JL, Kerbrat AH, Atkins DC, Flaster A, Comtois KA. Current Suicidal Ideation among Treatment-Engaged Active Duty Soldiers and Marines. *Mil Behav Health.* 2015;3(4):296-305. Epub 2015 Sep 2016 doi:2010.1080/21635781.21632015.21093980.	E4

EVIDENCE TABLES

QUALITY ASSESSMENT OF INCLUDED DIAGNOSTIC/SCREENING ACCURACY STUDIES

Author, Year	Adequate description of population?	Non-biased selection?	Adequate sample size for study design?	Low loss to follow-up/ missing data?	Standard-ized method of risk factor assessment and scoring clearly described or referenced?	Unbiased risk factor assessment by independ-ent assessors?	Adequate outcome Measure-ment?	Unbiased outcome measureme nt by independ-ent assessors?	Adequate accounting for potential confounders ?	Overall assessment of potential for bias (Low/ Unclear/ High)
Recently Published Studies										
Nock, 2018[2]	Yes Demo-graphics and inclusion criteria described	Yes Representat-ive of all active duty soldiers	Yes N=3,916; 803 with suicide attempts	Unclear Not reported	Yes Assessments were described and referenced	Unclear Not reported	Yes Suicide attempt assessed by Columbia Suicidal Severity Rating scale	Unclear Not reported	Yes Adjusted for socio-demographic and Army history factors	Unclear
Kessler, 2017[3]	Yes Demograph-ics previously described; inclusion criteria described	Yes Representat-ive of all active duty soldiers	Yes N= 975,057; 1,070 with suicide deaths	Yes Missing values and inconsistenc-ies were resolved using rational imputation.	Yes Assessments were described and referenced	Yes, data from existing medical records.	Yes ICD-9-CM treatment codes, previously described	Yes DoD Suicide Event Reporting system, previously described	Yes Adjusted for prior psychiatric hospitalizat-ion, gender and deployment status	Low

Rosellini, 2017[4]	Unclear Subset of a group in which demographics previously described; inclusion criteria described	Yes Representative of new Army soldiers prior to beginning Basic Combat Training	Yes N=21,832; unreported number of suicide attempts	Unclear Not reported	Yes Assessments were described and referenced	Unclear Not reported	Yes Suicide attempt was defined based on ICD-9-CM treatment codes	Yes Suicide attempt was defined based on the DoD Suicide Event Reporting system	Yes Adjusted for sociodemographic factors, lifetime history of mental disorder, and lifetime suicidality/ non-suicidal self-injury	Unclear
*Studies Included in Previous ESP Reviews (*Nelson, 2015 & Haney,2012)										
Kessler, 2015[5]	No, population characteristics not described.	Yes, included all patients with psychiatric hospitalizations within the study period.	Yes, N= 40,820; 68 suicides.	Yes, 12-month follow-up not available for all patients due to termination of military service; imputation used for missing data.	Yes, risk prediction model described, although list of predictors used for each model was not provided.	Yes, data from existing medical records.	Unclear, suicide data were extracted from administrative databases, but did not explicitly report how suicide deaths were determined.	Not applicable.†	Not applicable.‡	Low
McCarthy, 2015[6]	Yes	Yes, included all cases of suicide and a random 1% sample of the rest of the population as controls.	Yes, N=5.9 million; 2,138 suicides.	Unclear, not reported.	Yes, risk prediction model described.	Yes, data from existing medical records.	Yes, suicide death according to the National Death Index.	Not applicable.†	Not applicable.‡	Low

Breshears, 2010[7]	Yes	Unclear, not reported.	No, N=154; 11 with suicide behavior.	Unclear, included only patients with medical record information to confirm traumatic brain injury and assess injury severity.	Unclear, all risk factors were assessed by chart review; scoring of the Personality Assessment Inventory was likely standardized.	Unclear, not reported.	No, chart review was used as the reference standard for suicidal behavior.	Unclear, not reported.	Not applicable.‡	High
Hendin, 2010[8]	Yes	Unclear, not reported.	No, N=283; 40 with suicidal behavior.	Yes, 240/283 patients completed both assessments.	Yes, assessments were described and referenced.	Yes, research assistant assessors were independent.	Yes, procedures were described; all patients were assessed at follow-up.	Unclear, not reported.	Not applicable.‡	Unclear
Tiet, 2006[9]	Yes	Unclear, recruitment time frame not described.	Yes, N=5,671; 1,163 with attempts within 30 days.	Yes, 2% missing data (95/5671).	Yes, assessments were described and referenced.	Unclear, not reported.	Yes, assessed during face-to-face interview with Addiction Severity Index.	Unclear, not reported.	Not applicable.‡	Unclear
Hartl, 2005[1]	Yes	Yes, consecutive admissions.	No, N=630; 7 with attempts 4 months prior to intake.	Unclear, missing data not reported.	Unclear, intake question-naires were not described.	Unclear, not reported.	Unclear, suicide attempt items were reportedly added to the Northeast Program Evaluation Center survey and are not standard.	Unclear, not reported.	Not applicable.‡	High

Abbreviations: ICD-9-CM= International Classification of Diseases, Ninth Revision, Clinical Modification
* Risk of Bias tool modified from Hayden, 2006 and Harris, 2001
† Deaths confirmed by reliable external sources (eg, death certificate).
‡ Not relevant to this study.
§ "Undetermined cause" was combined with "suicide" in this study consistent with customary practice in the United Kingdom (UK).

QUALITY ASSESSMENT OF INCLUDED RANDOMIZED CONTROLLED TRIALS (COCHRANE RCT TOOL)

Author, Year	Sequence Generation: Was the allocation sequence adequately generated?	Allocation concealment: Was allocation adequately concealed?	Blinding: Was knowledge of the allocated intervention adequately prevented during the study?	Incomplete outcome data: Were incomplete outcome data adequately addressed?	Selective outcome reporting: Are reports of the study free of suggestion of selective outcome reporting?	Other sources of bias: Was the study apparently free of other problems that could put it at a high risk of bias?	Overall assessment of potential for bias: Low/ Unclear/High
Recently Published Studies							
Bryan, 2017[10]	Yes Computerized randomization	Yes Color coding of intervention groups	Yes Participant, therapist, and outcome assessor blinding	Yes No differences between groups in attrition (22-28%). ITT analysis used with censoring of missing data. Model analysis found missing data did not impact results.	Yes All outcomes reported. Focused reporting on favorable unadjusted results in abstract when adjusted results were not significant, but did report adjusted results in text.	Yes None noted	Good
Goodman, 2016[11]	Yes Computerized randomization	Unclear Not described	No No discussion of blinding of patients, clinicians, or outcome assessors	Unclear 40-60% attrition. Used general linear mixed models using all available data.	Yes Reported all primary and secondary outcomes	Yes None noted	Unclear
Jobes, 2017[12]	Unclear "minimization" matching strategy	Unclear Not described	Unclear Single "blind" assessment but no	Yes No differences between groups (13% missing	Yes Reported all primary and	Yes None noted	Unclear

Author, Year	Sequence Generation: Was the allocation sequence adequately generated?	Allocation concealment: Was allocation adequately concealed?	Blinding: Was knowledge of the allocated intervention adequately prevented during the study?	Incomplete outcome data: Were incomplete outcome data adequately addressed?	Selective outcome reporting: Are reports of the study free of suggestion of selective outcome reporting?	Other sources of bias: Was the study apparently free of other problems that could put it at a high risk of bias?	Overall assessment of potential for bias: Low/ Unclear/High
Recently Published Studies							
			other discussion of blinding	overall). ITT analysis and analysis of missing data	secondary outcomes		
Studies Included in Previous ESP Reviews (Nelson 2015, O'Neil 2012)							
Rudd, 2015[13]	Yes, computerized randomization program.	Unclear, computer program was used for randomization, but unclear if allocation was concealed until enrollment complete.	Assessors: Yes. Participants and providers: Unclear.	Yes, analysis of missing data patterns indicated that self-report data were missing completely at random for both treatment conditions; missing data handled with maximum likelihood estimation and multiple imputation of 10 data sets.	Unclear, only self-report data from baseline to the 18-month follow-up assessment were used in analyses because of higher than planned attrition rate during later follow-up assessments.	Yes, none noted.	Unclear

QUALITY ASSESSMENT OF INCLUDED OBSERVATIONAL STUDIES (COCHRANE NRSI TOOL)

Author, Year	Risk of selection bias? (yes, no unclear)	Risk of performance bias? (yes/no/unclear)	Risk of detection bias? (yes, no, unclear)	Risk of bias due to confounding? (yes, no, unclear)	Risk of Attrition bias? (yes, no, unclear)	Risk of reporting bias? (yes, no, unclear)	Overall Quality (Good/Fair/Poor)
Recently Published Studies							
Smith-Osborne, 2017[14]	Unclear Selection across different time periods.	Yes ASIST training ongoing during time period and categorization of "high/low" training only at baseline	No Validated scales	Yes No adjustment, baseline differences in age and gender	Unclear Levels of missing data unclear, imputed missing data	No	Poor
Studies Included in Previous ESP Reviews (Nelson 2015, O'Neil 2012)							
None							

STRENGTH OF EVIDENCE FOR INCLUDED STUDIES

Strength of Evidence for Studies of the Efficacy/Effectiveness of Population-level Healthcare Service Interventions for Suicide Prevention

Outcome	Study Design/ Number of Studies (N)	Study Limitations	Directness	Consistency	Precision	Reporting Bias	Overall Effect	Strength of Evidence/GRADE*
Recently Published Studies								
Applied Suicide Intervention Skills Training (High Training vs Low Training)								
Suicide attempt	1 prospective cohort[14] (N=131)	High	Direct	Unknown	Imprecise	Undetected	Decrease	Insufficient
Suicide	1 prospective cohort[14] (N=131)	High	Direct	Unknown	Imprecise	Undetected	None	Insufficient
VA Mental Health Environment of Care Checklist								
Suicide	1 before-after study[15] (N=77,893)	High	Direct	Unknown	Precise	Undetected	Decrease	Insufficient
Studies Included in Previous ESP Reviews								
Multicomponent Leadership and Community Initiative								
Suicide	1 before-after study[16] observational (N>5 million)	High	Direct	Unknown	Precise	Undetected	Decrease	Insufficient
Multicomponent Deployment Intervention								
Suicide	1 post intervention series[17] (N=40,283)	High	Direct	Unknown	Precise	Undetected	Decrease	Insufficient

Strength of Evidence for Studies of the Efficacy/Effectiveness of Individual-level Healthcare Service Interventions for Suicide Prevention

Outcome	Study Design/ Number of Studies (N)	Study Limitations	Directness	Consistency	Precision	Reporting Bias	Overall Effect	Strength of Evidence/GRADE*
Recently Published Studies								
Crisis Response Plan vs Enhanced Crisis Response Plan vs Contract for Safety								
Suicide attempt	1 RCT[10] (N=97)	Low	Direct	Unknown	Imprecise	Undetected	None	Low
Dialectical Behavioral Therapy vs Usual Care								
Suicide Attempt	1 RCT[11] (N=91)	Moderate	Direct	Unknown	Imprecise	Undetected	None	Low
Collaborative Assessment and Management of Suicidality vs Usual Care								
Suicide Attempt	1 RCT[12] (N=148)	Moderate	Direct	Unknown	Imprecise	Undetected	None	Low
Studies Included in Previous ESP Review								
Cognitive Behavioral Therapy vs Usual Care								
Suicide Attempt	1 RCT[13] (N=152)	Moderate	Direct	Unknown	Imprecise	Undetected	Decrease	Low

PEER REVIEW

Comment #	Reviewer #	Comment	*Author Response*
Are the objectives, scope, and methods for this review clearly described?			
1	1	Yes	*None*
2	2	Yes	*None*
3	3	Yes	*None*
4	4	Yes	*None*
5	5	Yes	*None*
6	6	Yes	*None*
Is there any indication of bias in our synthesis of the evidence?			
7	1	No	*None*
8	2	No	*None*
9	3	No	*None*
10	4	No	*None*
11	5	No	*None*
12	6	No	*None*
Are there any published or unpublished studies that we may have overlooked?			
13	1	No	*None*
14	2	Yes - I didn't see Peter Britton's recently completed study of MI among veterans post-psychiatric discharge. I believe the outcome for that study was suicidal self-directed violence. Also, if ongoing/recently completed intervention studies that use suicidal ideation as the outcome are eligible (as it appears in Table 5), then there are two studies Lauren Denneson recently completed that might be included. These examined health coaching among transitioning (Post-9/11) veterans at varying levels of suicide risk.	*Thank you. No additional public information is yet available about Dr. Britton's motivational interviewing study. But, we did add details to KQ3 about Lauren Denneson's 2 recently completed pilot studies of health coaching with findings currently under review, one of which focuses on reducing suicidal ideation in Post-9/11 Veterans with recent suicidal ideation, and the other that focuses on feasibility and acceptability of implementation as an upstream suicide prevention approach in at-risk Post-9/11 Veterans without current suicide ideation. We also noted that some participants in Dr. Denneson's studies may be considered transitioning as no restrictions were placed on time since military separation.*
15	3	Yes - I've included information on these studies and papers in my review below.	*Thank you. We address individual studies and papers in the comments below.*
16	4	No	*None*
17	5	No	*None*

18	6	Were studies from MSRC or MOMRP (DoD) included?	*Yes. From our original searching we included Bryan 2017, Nock 2018, and Jobes 2018 from MSRC and MOMRP. We did further searching of these studies and did not find any additional studies to include.*
Additional suggestions or comments can be provided below. If applicable, please indicate the page and line numbers from the draft report.			
19	1	It would be helpful to clarify the definition of "veteran" for purposes of this review. Specifically, is the review intended to consider people who are veterans receiving (or not receiving) care in any healthcare setting or system? Or does it intend to consider care provided by VHA? Or care paid for by VHA? It would be helpful for descriptions of individual study to clarify individual veteran status as well as care setting.	*We added clarification to the eligibility criteria that we would include studies of any Veteran groups, regardless of payer or setting.*
20	1	The mention of possible adverse effects of risk identification could use some clarification. It is possible that completion of a self-report assessment or participation in a clinician assessment could have adverse effects. But it does not seem possible that computation of a records-based risk score would have direct adverse effects. Of course, an outreach program or some other intervention triggered by a computed risk score could have adverse effects. But it is really important to distinguish between direct adverse effects of assessment and adverse effects of subsequent interventions.	*Agreed. Added this clarification to page 11 in Harms eligibility criteria: Any including direct adverse effects of an assessment or intervention or those of subsequent interventions*
21	1	The discussion about safety planning (top of page 23) seems inaccurate to me. While there are many flavors of safety plans or crisis plans, most (if not all) of them include a significant focus on "what to do" (coping strategies, sources of support, etc.). The authors may be conflating safety plans with "contracts for safety".	*This description was taken directly from the Bryan 2017 RCT, which is why we put the "outlines what to do" and "outlines what not do to" in quotes. These descriptions are meant to relate to focus of the specific interventions used in that Bryan 2017 RCT as they were described, not in reference to safety planning in general: crisis response plan=outlines what to do and safety planning=outlines what not to do. But, to avoid misinterpretation, we took these phrases out and listed the specific components of the interventions.*
22	1	The discussion of future priorities might mention the expected arrival of glutamate receptor modulator drugs (esketamine and others to follow). It is likely that these drugs will be approved based on evidence for reducing depressive symptoms and reducing suicidal ideation. But we will likely lack (and desperately need) data regarding effects of these drugs on actual suicidal behavior.	*Thank you for this comment. However, because this review focused on population-directed healthcare services (eg, hotlines, outreach programs) and/or individual-directed healthcare services (eg, case management, follow-up) and not interventions that primarily treat co-existing conditions, including pharmacotherapy, mentioning the expected arrival of glutamate receptor modulator drugs is outside of our scope.*

23	2	One minor thing is that page 2, lines 19-27, this paragraph is unclear as written. I'm not sure what previous study is being referred to in line 21 and the last sentence is unclear.	*On line 21, we added clarification that the previous CBT study we were referring to is the Rudd 2017 study. In the last sentence, consistent with comment 21 below, we removed reference to "suicide pathway" and simplified the sentence to increase its clarity: Studies are still needed that (1) evaluate eligibility and training requirements of peer support specialists, (2) target known risk factors in Veterans before acute suicide crisis, and (3) focus on service members transitioning to civilian life and those with a history of repeat attempts.*
24	2	The eligibility criteria outlined no pages 6-7 state that eligible outcomes for interventions are suicidal self-directed violence, but it appears that the outcome for some of the ongoing studies included in table 5 is suicidal ideation (e.g., Barnes, et al; Brenner et al; Holloway, et al).	*Thank you for noting this discrepancy. You are correct that the eligible outcomes for this review are suicidal self-directed violence behavior and that that ideation outcomes are outside of our scope. We have replaced listings of ideation outcomes for the ongoing studies to entries of "None" to indicate that the protocols did not list any suicidal behavior outcomes.*
25	2	It would be helpful on page 21, lines 36-42, if the interventions referred to in this section were identified (instead of the count) in parentheses.	*We have added citations instead of counts to clarify which studies are discussed.*
26	3	Not all active duty service members are soldiers. Recommend calling them service members when discussing in general to include all branches of service and only using soldiers when discussing studies with Army participants (which is a majority of them). In addition, service member is not consistently capitalized (or not) throughout the document. I believe it is Service member (as you have it on p. 4, line 59)	*We have changed "soldier" to "service member" except in instances when we discuss studies specific to the Army. Per VA style guidelines, we have capitalized "Solider" and not capitalized "service member".* http://vaww.va.gov/webcom/style.asp
27	3	I'm not sure what the phrase "suicide pathway" refers to and worry that it is stigmatizing. Is there another phrase that can be used to describe using a public health approach that targets individuals before they are in acute crisis? Identifying the public health approach as one that VA has adopted may be helpful as well.	*Removed "suicide pathway" in 3 locations and replaced with "in individuals before they are in acute suicide crisis"*
28	3	The phrase Veterans Health Administration does not have an apostrophe in Veterans. Need to fix on p. 4, line 23.	*Changed.*
29	3	Word missing on p. 5, line 12. Looks like it should be primary care, but care is missing.	*Added.*
30	3	The use of the phrase "completed suicide" is discouraged. Recommend death by suicide, suicide death, or suicide. This phrase is used a number of times (see p. 15 – line 15, line 34, line 55).	*Changed to either "suicide death" or "death by suicide".*

31	3	Executive summary 1. First paragraph. You may want to include a statement regarding how many Veterans of the 20 who die each day are not users of VHA care. This may limit the effectiveness of VA suicide prevention efforts as well.	*We have added a statement of how many of these have recently used VHA services to the background section.*
32	3	In the table (p. 2), it would be helpful to include all abbreviations at the bottom. KQ and SOE are missing.	*Added.*
33	3	There is an existing publication that describes the model used in REACH VET that would be more appropriate to cite than personal communication (p. 5, line 31). It is McCarthy et al. 2015 https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2015.302737	*Thank you we added this here.*
34	3	I would discourage describing REACH VET as providing lists of Veterans. The REACH VET program utilizes a dashboard that provides REACH VET Coordinators with the names of Veterans who have been identified as being in the highest tier of risk (0.1%) at their facility	*We have modified this section as suggested.*
35	3	The model is re-run once monthly (not twice, as listed on p. 5).	*Changed.*
36	3	Recommend removing polypharmacy and falls as adverse events that REACH VET predictive model predicts, as I don't think this is not accurate.	*Removed.*
37	3	There have been a number of public presentations on both the initial impact of REACH VET on patient outcomes and the plan to evaluate implementation that could be cited if needed. I believe Dr. Bridget Matarazzo presented one of these at AAS in April and Dr. Sara Landes presented on at Academy Health in June.	*Thank you. Based on Dr. Landes' public presentation at the June Academy Health Annual Research Meeting, we added the following to page 24 of our report: "Early data from the first year of implementation has already found that REACH VET has had positive impacts on 6-month patient outcomes, including greater completion of suicide prevention safety plans and less all-cause mortality. A full report on REACH VET's first year of implement is expected later in 2018."*
38	3	Caring Contacts are discussed throughout the document as caring emails or caring letters. I'd recommend calling them all Caring Contacts and then identifying the mode of contact (emails, letter). For example, I'd change p. 5, line 50 to Caring Contacts.	*Changed.*
39	3	Dr. Mark Reger at the Seattle VA led a review of Caring Contact methods to inform VA work to implement Caring Contacts. May want to conclude: Reger, M. A., Luxton, D. D., Tucker, R., Comtois, K. A., Katz, I. R., Keen, A. D., Landes, S. J., Matarazzo, B. B., & Thompson, C. (2017). Implementation methods for the caring contacts suicide prevention	*Thank you for all the information about all the ongoing Caring Contact work. To address comments 39-43, we have added the following:* *Regarding interventions designed to bolster protective factors such as psychological resilience, meaningful life, grit, gratitude, and social support[18-22] that are negatively associated with suicidal ideation, we identified quite a bit*

		intervention. Professional Psychology: Research and Practice, 48, 369-377.	*of recent Caring Contacts work. Caring contacts "traditionally entails the routine sending of brief nondemanding messages that express caring concern to patients following discharge from treatment" to promote a feeling of caring connection using various contact modalities (i.e., mailed letters, postcards, greeting cards, emails, and text messages).[Reger 2017].[23] Recent work includes a review that provides "recommendations for the implementation of the Caring Contacts intervention across diverse settings,"[Reger 2017] a preliminary study of the acceptability of Caring Contacts with Veterans,[cite Portland VA presentation] a pilot implementation of centralized Caring Contacts for Veterans identified by REACH VET,[personal communication by Dr. Sara Landes] ongoing evaluation of how to implement Caring Contacts in the emergency department at VA,[personal communication by Dr. Sara Landes] and a completed study with preliminary unpublished data[24] which found that caring contacts sent via text message reduced the risk of suicide attempts and suicidal ideation over 1 year follow-up in 657 active duty service members*
40	3	Dr. Reger has also conducted preliminary studies on the acceptability of Caring Contacts with Veterans. I don't believe these are in press yet. May want to contact him.	*Added reference to this work. See response to comment #39.*
41	3	Dr. Reger and Dr. Landes are conducting a pilot implementation of centralized Caring Contacts for Veterans identified by REACH VET. This is being funded by OMHSP.	*Added reference to this work. See response to comment #39.*
42	3	Dr. Landes is evaluating how to implement Caring Contacts in the emergency department at VA with VISN funding and has a grant under review to continue this.	*Added reference to this work. See response to comment #39.*
43	3	You mention the Comtois Caring Contact study as ongoing on p. 22. That study is now complete. They presented their initial findings at AAS in April 2018, but no paper is currently available. Here is information from that presentation: Kerbrat, A. H., Comtois, K. A., & DeCou, C. R. (2018, April). Caring contacts via text message: Results of a randomized controlled trial with active duty military personnel. Paper presented at the annual conference of the American Association for Suicidology, Washington, DC.	*Changed our reference to this study as completed and cited these preliminary findings. See response to comment #39.*

		- Active duty personnel recruited from Army and Marine Corps (N=657) - Caring Contacts reduced the risk of suicidal ideation and suicide attempt throughout 12-month follow-up: § 45% less likely to have experienced any suicidal ideation (OR = 0.55 [0.32 – 0.94]) § 45% less likely to have made a suicide attempt (OR = 0.55 [0.31 – 0.99]) - Caring Contacts were effective: § Via text message § With a predominately male, active duty military sample § Across the spectrum of very low to very high suicidality - Recommend contacting Dr. Comtois if it is better to cite personal communication than a presentation (comtois@uw.edu)	
44	3	The most recent study of DBT with Veterans is described first on p. 16. It might be helpful to point out that most DBT studies include treatment for 1 year and this was 6 months (although a previous RCT with Veterans with positive results was only 6 months of treatment – Koons et al.).	*Added clarification of this different in follow-up.*
45	3	I wonder if it would be helpful to include any other information here, as the outcome of this study was surprising? For example, there are 2 papers that describe the challenges of implementing DBT in the VA system (Landes et al. 2016, 2017).	*Yes, added this statement as additional context around why DBT had a surprising finding in Veterans: Other authors have more recently identified inadequate time to support full implementation of all of DBT's multiple and complex treatment modes (i.e., phone coaching outside of business hours) and other challenges as potential key barriers to successful implementation of DBT in the VA.[Landes 2016, Landes 2017]*
46	3	There have been other papers on DBT with Veterans that were not RCTs, but that might help provide better context and support of this evidence-based psychotherapy. For example, Meyers et al. showed that DBT was helpful to male and female Veterans and reduced service utilization in VA and cost. There have been other presentations of program evaluations of DBT in VA as well. The DBT SharePoint has these and research papers mentioned if needed: vaww.portal.va.gov/sites/OMHS/dbt	*Added Meyers 2014 as context that DBT has shown some service utilization and cost benefits in Veterans.*
47	3	While not with Veterans, there is a new meta-analysis on DBT that may also provide useful context – DeCou, Comtois, & Landes 2018.	*Thank you. We added this as additional support to our existing statement that DBT has been shown to reduce suicide risk primarily in civilians with borderline personality disorder.*

48	3	On p. 23, safety planning is described as an approach that "outlines what not to do." I would disagree with this description. This does not match the VA template for safety planning, nor the VA manual for it (Stanley & Brown).	*This description was taken directly from the Bryan 2017 RCT, which is why we put the "outlines what to do" and "outlines what not do to" in quotes. These descriptions are meant to relate to focus of the specific interventions used in that Bryan 2017 RCT as they were described, not in reference to safety planning in general: crisis response plan=outlines what to do and safety planning=outlines what not to do. But, to avoid misinterpretation, we took these phrases out and listed the specific components of the interventions.*
49	3	Does the review include the SAFE VET trial, or was that included in the previous review?	*SAFE VET is included in our list of ongoing studies table, but we did not find any published results*
50	4	Is there any possibility of putting in the summary a bulleted list of gaps and recommendations? I think that would be helpful for decision makers to focus on	*Added.*
51	4	I think it would be helpful at the start to indicate that you will be referring to the 2015 ESP Report as Nelson (2015). The Nelson reference does not show until page 10, and I had to look around to figure that it was a actually the ESP report.	*Thank you. Added this in the Executive Summary and Purpose paragraph of the Introduction.*
52	4	there are a number of references to 'protective factors;' does that include resilience? Later on there are two mentions of 'psychological resilience,' but I know DoD looks at resilience as a key point to focus on. I am surprised there seems to be no study on that from the MSRC or MOMRP (DoD).	*Yes, we included resilience in the list of protective factors. We specifically searched for MSRC or MOMRP studies focusing on resilience, but did not find any.*
53	4	In Exec Summ Table, I assume SOE stand for Summary of Evidence? I am not sure what that refers to in the context of the table.	*A definition for this has been added to the footnotes*
54	4	Page 5, line 12: should it read "...made contact with primary care provider in the preceding year..."?	*Yes, this has been changed.*
55	4	page 7: By "Timing: Any", is that indicating there were no time (date of publication) restrictions on the selection of papers?	*This was meant to reflect that we did not impose any restrictions based on follow-up time frames and clarified this in the eligibility criteria.*
56	4	Page 9, Figure 1: Seems odd that the first number you report in the text (3,495; and this is the number that was in the Exec Summ) is not in the table...should it be matching with the 3459?	*Yes, these have been changed to match the figure "3,459"*
57	4	page 9/page 1: I probably missed this in the approach you detailed (my apologies), but I am not sure how to reconcile that on page 1, you write that there are "...3,495 new citations identified since our	*We added clarification to the executive summary of how many studies were included from the previous ESP review.*

		2015 review...." but quite a few studies and citations that are in the text and the tables are from well before that.	
58	4	pages 10-11: For me, the ROC AUC piece needs more explanation as to what it means and how it informs this report	*We added the following about the ROC AUC: "…is an analysis of how well a test separates groups with and without the risk factor. Values of 1 represent perfect accuracy; whereas 0.5 represents accuracy that is no better than flipping a coin."*
59	4	page 20: MVP is already supporting work on suicide; I recommend contacting the MVP Director, Dr. Muralidhar to see what she thinks is appropriate to put in the report. Similarly, STARRS has objective data to assess the utility of biomarkers for determining risk - the lead on this work for STARRS is Dr. Murray Stein, who is at the San Diego VA.	*Thank you for identifying these potential sources of ongoing work. We have already noted MVP and STARRS as potential resources for biomarker information. But, due to the short timeline of this rapid review, we were unable to obtain more detail to add to the report about work in progress. For our next update, we will be sure to seek out additional detail.*
60	4	page 22: You might want to note that Caring Letters is being used in conjunction with REACH-Vet; Dr. Sara Landes from Little Rock VA is leading an HSR&D study looking at the use of Caring Letters to facilitate the REACH-Vet process	*Thank you. Yes, we added this information per comment #41 above.*
61	4	Given HSRD's key focus right now on the 'transition period', would it be possible to have a paragraph devoted to this in the summary (maybe with a subheader)? It kind of gets minimal attention on page 30 - one paragraph that is actually just one long sentence. I note that it is mentioned throughout the report, but is there a way to bring more attention to that topic throughout the report?	*Yes – added new paragraphs – both with a subheading – both to the Executive Summary and the Discussion.*
62	5	An excellent review with rigorous methodology. I do not have anything to add to the current scope of the project. However, one often overlooked factor is that a large part of the suicide problem is not within the VA but without. 16 of the 20 suicides per day are by Veterans who have had no contact with the VA. That rate will not be reduced substantially until this problem is addressed. Once Veterans are seen within the VA, they by and large receive excellent care in the area of suicide prevention. I do agree with your point that the transition out of the military is a vulnerable time, especially if they do not engage with VA services. I think it is an important point to acknowledge the lack of contact with Veterans who do not receive care as a critical shortcoming in the fight against Veteran suicide. How can that be addressed?	*Agreed that this is an important issue worth addressing this report. We added a paragraph to the Discussion about this that focuses on the concept of community outreach, describing known gatekeeper training programs such as VA's S.A.V.E. and calling for more work in this area.*
63	6	Can a table of gaps and recommendations be included in the executive summary and in the summary/conclusion section?	*Yes, added.*

64	6	I wasn't quite sure what "adverse effects" meant in KQ1, KQ2? — Should adverse effects be replaced with "effectiveness"?	*We added clarification to our eligibility criteria that by adverse effects, we mean: "Any (eg, potential unintentional iatrogenic effects such as anxiety, distress, stigma), including direct adverse effects of an assessment or intervention or those of subsequent interventions"*
65	6	Given that the HSR&D suicide prevention roadmap and EO 13822 focus on "transitioning" veterans, can we include a brief summary upfront in the Executive Summary? Even though likely there may not be a lot in this area.	*Yes, added.*
66	6	on p. 9 the literature flow showed that some inconsistent numbers? Number of records after excluding duplicates is '3459' but later '3495' is the number presented that represents unique potentially relevant articles?	*This has been resolved.*
67	6	on pg. 30 (summary and discussion) can a table be developed to summarize what was found in the rapid brief?	*Summary table has been added to the summary and discussion.*
68	6	also on p. 32, (conclusion), I'm again not clear about what is meant by "adverse effects of suicide prevention efforts"? I think it might be good to replace "adverse effects with "effectiveness as the phrase implies that suicide prevention is not good as it has adverse effects.	*We added clarification in our eligibility criteria that by "adverse effects" we mean potential unintentional iatrogenic effects such as anxiety, distress, stigma, that could either be the direct effect of an assessment or intervention or those of subsequent interventions. This is not meant to imply that suicide prevention is not good, nor are we aware of conclusive evidence regarding potential iatrogenic effects. We are posing the question, though, in adherence to one of the guiding principles of comparative effective research – to evaluate the potential trade-offs of health care approaches, regardless of their likelihood.*

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