



Topic Brief: Treatment of Suicidality in Young People

Date: 2/10/2023

Nomination Number: 1037

Purpose: This document summarizes the information addressing a nomination submitted on November 18, 2022, through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue: In late 2021, the American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry and Children’s Hospital Association declared a national emergency in child and adolescent mental health for suicide, the second leading cause of death in children and young adults. The American Psychological Association plans to use a systematic review to develop clinical practice guidelines for management of suicidal thoughts and behaviors in children and young adults.

[Link to nomination](#)

Findings: The EPC Program will develop a new systematic review based on this nomination. The scope of this topic will be further developed in the refinement phase. When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to <https://effectivehealthcare.ahrq.gov/email-updates>.

Background

Suicide is the second leading cause of death among high school-aged youths. In 2019, 18.8% of high school students reported having seriously considered suicide, and higher risk groups included females and lesbian, gay, or bisexual youths.¹ Other risk factors may include mental and substance disorders, childhood trauma, bullying, and dysregulated sleep. Protective factors include resilience, problem-solving skills, access to health care, positive peer relationships, cultural or religious beliefs that discourage suicide, interpersonal and community connectedness, safe environment, and positive adult relationships.²

Suicidal ideation refers to thinking or planning suicide.² Over one third of adolescents who experience suicidal ideation attempt suicide at some point.³ Data from a large longitudinal study in the US from 2000 to 2010 indicated that about 38% of youth up to age 19 sought health services four weeks prior to dying by suicide, and about 17% sought mental health services.⁴ Treatment is usually conducted by a licensed mental health professional and occurs over multiple sessions.² The American Psychological Association plans to use a systematic review to develop clinical practice guidelines for management of suicidal thoughts and behaviors in children and young adults.

Scope

1. What is the effectiveness, comparative effectiveness, and harms of treatments for suicidal thoughts and behaviors?
 - a) What are the components of effective psychological treatments (e.g., frequency or intensity of therapy and/or aspects of the therapeutic modality)?
 - b) How do social determinants of health, racism and disparities affect outcomes?

Table 1. Questions and PICOS (population, intervention, comparator, outcome, and setting)

Questions	Treatment for suicidal thoughts and behaviors
Population	Ages 10-24 yrs who have engaged in suicidal ideation (thinking about or planning suicide) with or without self-injurious behaviors (i.e., suicide attempt, self-injurious behavior including self-directed deliberate injury or potential for injury), or have made suicide attempts in the absence of know suicidal ideation Consider socioeconomic status, race, gender
Interventions	Psychological, pharmacological, complementary, integrative health (e.g., light therapy, supplements), combination therapies
Comparators	Other psychological, pharmacological, complementary, integrative health, combination therapies; treatment as usual
Outcomes	Measures of psychological functioning (e.g., suicidality/ideation, depression, anxiety) both as reported by child and caregiver, suicidal behaviors (e.g., suicidal attempts, self-harm), quality of life, school outcomes (e.g., functioning in school). Any harms
Setting	All/any (e.g., outpatient, inpatient, emergency department)

Assessment Methods

See Appendix A.

Summary of Literature Findings

We did not find an adequate systematic review or combination of systematic reviews to cover the scope of the topic nomination, but we did find primary studies addressing the key question.

We found a total of 18 primary studies from a sample of 200 out of 764 addressing the key question. The majority (16)⁵⁻²⁰ of the studies used psychological interventions of various types. Additionally, there was one study of a pharmacological intervention,²¹ and one study of transcranial magnetic stimulation.²²

Table 2. Literature identified for each Question

Question	Systematic reviews (1/2020-1/2023)	Primary studies (1/2018-1/2023)
Question 1: Treatment for suicidal thought and behaviors	Total: 0	Total: 18 <ul style="list-style-type: none"> • RCT: 12^{6, 9-14, 16-18, 20, 21} • Non-RCT: 3^{5, 19, 22} • Observational: 2^{8, 15} • Qualitative (to address harms): 1⁷

Abbreviations: RCT=randomized controlled trial.

See Appendix B for detailed assessments of all EPC selection criteria.

Summary of Selection Criteria Assessment

In late 2021, the American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry and Children’s Hospital Association declared a national emergency in child and adolescent mental health for suicide, the second leading cause of death in children and young

adults. The American Psychological Association plans to use a systematic review to develop clinical practice guidelines for management of suicidal thoughts and behaviors in children and young adults. We did not find any adequate systematic reviews addressing the scope of the topic. Out of a sample of 200 studies from a 764 total, we found 18 primary studies, almost all of which used psychological interventions of various types and estimate that the size of new systematic review would be medium.

Please see Appendix B for detailed assessments of individual EPC Program selection criteria.

References

1. Suicidal Ideation and Behaviors Among High School Students. Centers for Disease Control and Prevention. doi: <https://www.cdc.gov/mmwr/volumes/69/su/su6901a6.htm>.
2. Treatment for Suicidal Ideation, Self-Harm, and Suicide Attempts Among Youth. SAMSHA. doi: https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-06-01-002.pdf
3. Daniel SS, Goldston DB. Interventions for suicidal youth: a review of the literature and developmental considerations. *Suicide Life Threat Behav.* 2009 Jun;39(3):252-68. doi: <https://doi.org/10.1521/suli.2009.39.3.252>. PMID: 19606918.
4. Ahmedani BK, Simon GE, Stewart C, et al. Health care contacts in the year before suicide death. *J Gen Intern Med.* 2014 Jun;29(6):870-7. doi: <https://doi.org/10.1007/s11606-014-2767-3>. PMID: 24567199.
5. Hashemi-Aliabadi S, Jalali A, Rahmati M, et al. Group reminiscence for hope and resilience in care-seekers who have attempted suicide. *Ann Gen Psychiatry.* 2020;19:4. doi: <https://doi.org/10.1186/s12991-020-0257-z>. PMID: 31969928.
6. Haruvi Catalan L, Levis Frenk M, Adini Spigelman E, et al. Ultra-Brief Crisis IPT-A Based Intervention for Suicidal Children and Adolescents (IPT-A-SCI) Pilot Study Results. *Front Psychiatry.* 2020;11:553422. doi: <https://doi.org/10.3389/fpsy.2020.553422>. PMID: 33362595.
7. Bailey E, Robinson J, Alvarez-Jimenez M, et al. Moderated Online Social Therapy for Young People With Active Suicidal Ideation: Qualitative Study. *Journal of Medical Internet Research.* 2021 04 05;23(4):e24260. doi: <https://dx.doi.org/10.2196/24260>. PMID: 33818392.
8. Barzilay S, Apter A, Snir A, et al. A longitudinal examination of the interpersonal theory of suicide and effects of school-based suicide prevention interventions in a multinational study of adolescents. *Journal of Child Psychology & Psychiatry & Allied Disciplines.* 2019 10;60(10):1104-11. doi: <https://dx.doi.org/10.1111/jcpp.13119>. PMID: 31512239.
9. Calcar AL, Banfield M, Batterham PJ, et al. Silence is deadly: a cluster-randomised controlled trial of a mental health help-seeking intervention for young men. *BMC Public Health.* 2017 Oct 23;17(1):834. doi: <https://dx.doi.org/10.1186/s12889-017-4845-z>. PMID: 29061168.
10. Hurtado-Santiago S, Guzman-Parra J, Bersabe RM, et al. Effectiveness of iconic therapy for the reduction of borderline personality disorder symptoms among suicidal youth: study protocol for a randomised controlled trial. *BMC Psychiatry.* 2018 09 03;18(1):277. doi: <https://dx.doi.org/10.1186/s12888-018-1857-x>. PMID: 30176878.
11. McGillivray L, Gan DZQ, Wong Q, et al. Three-arm randomised controlled trial of an m-health app and digital engagement strategy for improving treatment adherence and reducing suicidal ideation in young people: study protocol. *BMJ Open.* 2022 05 30;12(5):e058584. doi: <https://dx.doi.org/10.1136/bmjopen-2021-058584>. PMID: 35636787.
12. Miklowitz DJ, Merranko JA, Weintraub MJ, et al. Effects of family-focused therapy on suicidal ideation and behavior in youth at high risk for bipolar disorder. *Journal of Affective Disorders.* 2020 10 01;275:14-22. doi: <https://dx.doi.org/10.1016/j.jad.2020.06.015>. PMID: 32658817.

13. Santamarina-Perez P, Mendez I, Singh MK, et al. Adapted Dialectical Behavior Therapy for Adolescents with a High Risk of Suicide in a Community Clinic: a Pragmatic Randomized Controlled Trial. *Suicide & life-threatening behavior*. 2020;50(3):652. doi: <https://doi.org/10.1111/sltb.12612>.
14. Sinyor M, Williams M, Mitchell R, et al. Cognitive behavioral therapy for suicide prevention in youth admitted to hospital following an episode of self-harm: A pilot randomized controlled trial. *Journal of Affective Disorders*. 2020 04 01;266:686-94. doi: <https://dx.doi.org/10.1016/j.jad.2020.01.178>. PMID: 32056945.
15. Tebbett-Mock AA, Saito E, McGee M, et al. Efficacy of Dialectical Behavior Therapy Versus Treatment as Usual for Acute-Care Inpatient Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2020 01;59(1):149-56. doi: <https://dx.doi.org/10.1016/j.jaac.2019.01.020>. PMID: 30946973.
16. Torok M, Han J, McGillivray L, et al. The effect of a therapeutic smartphone application on suicidal ideation in young adults: Findings from a randomized controlled trial in Australia. *PLoS Medicine / Public Library of Science*. 2022 05;19(5):e1003978. doi: <https://dx.doi.org/10.1371/journal.pmed.1003978>. PMID: 35639672.
17. Wu Q, Zhang J, Walsh L, et al. Family network satisfaction moderates treatment effects among homeless youth experiencing suicidal ideation. *Behaviour research and therapy*. 2020;125. doi: <https://doi.org/10.1016/j.brat.2019.103548>.
18. Wu Q, Zhang J, Walsh L, et al. Illicit Drug Use, Cognitive Distortions, and Suicidal Ideation Among Homeless Youth: Results From a Randomized Controlled Trial. *Behavior Therapy*. 2022 01;53(1):92-104. doi: <https://dx.doi.org/10.1016/j.beth.2021.06.004>. PMID: 35027161.
19. Wu S, Adamsk K. Intervention effect of cognitive behaviour therapy under suicidology on psychological stress and emotional depression of college students. *Work (Reading, Mass.)*. 2021;69(2):697. doi: <https://doi.org/10.3233/WOR-213510>.
20. Yen S, Ranney ML, Krek M, et al. Skills to Enhance Positivity in Suicidal Adolescents: Results from a Pilot Randomized Clinical Trial. *The Journal of Positive Psychology*. 2020;15(3):348-61. doi: <https://dx.doi.org/10.1080/17439760.2019.1615105>. PMID: 32884576.
21. Ketamine Versus Midazolam for Recurrence of Suicidality in Adolescents. Double-Blind Randomized Controlled Trial of Acute-Course of Ketamine Versus Midazolam for Recurrence of Suicidality in Adolescents. 2020. doi: <https://clinicaltrials.gov/ct2/show/NCT04592809>.
22. Zhang T, Zhu J, Wang J, et al. An Open-label Trial of Adjuvant High-frequency Left Prefrontal Repetitive Transcranial Magnetic Stimulation for Treating Suicidal Ideation in Adolescents and Adults With Depression. *Journal of ECT*. 2021 Jun 01;37(2):140-6. doi: <https://dx.doi.org/10.1097/YCT.0000000000000739>. PMID: 33337649.
23. Peterson C, Miller GF, Barnett SBL, et al. Economic Cost of Injury - United States, 2019. *MMWR Morb Mortal Wkly Rep*. 2021 Dec 3;70(48):1655-9. doi: <https://doi.org/10.15585/mmwr.mm7048a1>. PMID: 34855726.

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Appendix A: Methods

We assessed nomination for priority for a systematic review or other AHRQ Effective Health Care report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one. See Appendix B for detailed description of the criteria.

Appropriateness and Importance

We assessed the nomination for appropriateness and importance.

Desirability of New Review/Absence of Duplication

We searched for high-quality, completed or in-process evidence reviews published in the last three years January 24, 2020 - January 24, 2023 on the questions of the nomination from these sources:

- AHRQ: Evidence reports and technology assessments
 - AHRQ Evidence Reports <https://www.ahrq.gov/research/findings/evidence-based-reports/index.html>
 - EHC Program <https://effectivehealthcare.ahrq.gov/>
 - US Preventive Services Task Force <https://www.uspreventiveservicestaskforce.org/>
 - AHRQ Technology Assessment Program <https://www.ahrq.gov/research/findings/ta/index.html>
- US Department of Veterans Affairs Products publications
 - Evidence Synthesis Program <https://www.hsrd.research.va.gov/publications/esp/>
 - VA/Department of Defense Evidence-Based Clinical Practice Guideline Program <https://www.healthquality.va.gov/>
- Cochrane Systematic Reviews <https://www.cochranelibrary.com/>
- University of York Centre for Reviews and Dissemination database <https://www.crd.york.ac.uk/CRDWeb/>
- PROSPERO Database (international prospective register of systematic reviews and protocols) <http://www.crd.york.ac.uk/prospero/>
- PubMed <https://www.ncbi.nlm.nih.gov/pubmed/>
- PCORI <https://www.pcori.org/>
- Joanna Briggs Institute <http://joannabriggs.org/>

Impact of a New Evidence Review

The impact of a new evidence review was qualitatively assessed by analyzing the current standard of care, the existence of potential knowledge gaps, and practice variation. We considered whether it was possible for this review to influence the current state of practice through various dissemination pathways (practice recommendation, clinical guidelines, etc.).

Feasibility of New Evidence Review

We conducted a limited literature search in PubMed and PsycInfo for the last five years January 24, 2018- January 24, 2023. Because a large number of articles were identified, we reviewed a random sample of 200 titles and abstracts for each question for inclusion. We classified identified studies by question and study design, to assess the size and scope of a potential evidence review. We then calculated the projected total number of included studies based on the proportion of studies included from the random sample.

Search strategy

Ovid MEDLINE ALL 1946 to January 20, 2023

Date searched: January 24, 2023

1 Suicidal Ideation/ or Suicide, Attempted/ (30299)

2 (suicidality or (suicid* adj3 (attempt* or behavior?r* or ideation or plan* or think* or thought\$1))).ti,kf. (20982)

3 or/1-2 (36642)

4 Therapeutics/ or th.fs. (2103522)

5 (intervention* or manag* or therap* or treat*).ti,kf. (3354027)

6 exp Psychotherapy/ (215671)

7 (psychiatri* or psychologist\$1 or psychotherap* or psychosocial or "social worker\$1" or therapist\$1).ti,kf. (160065)

8 Drug Therapy/ or Clomipramine/ or Duloxetine Hydrochloride/ or Escitalopram/ or Fluoxetine/ or Ketamine/ or Sertraline/ or "Serotonin and Noradrenaline Reuptake Inhibitors"/ or Selective Serotonin Reuptake Inhibitors/ (66785)

9 (drug\$1 or medication\$1 or pharmaco* or nonpharmaco* or pharmaceutical\$1 or antidepress* or anti-depress* or clomipramine or Anafranil or Duloxetine or Cymbalta or escitalopram or Lexapro or Fluoxetine or Prozac or Symbyax or Ketamine or Sertraline or Zoloft or SNRI\$1 or "Serotonin and Noradrenaline Reuptake Inhibitor*" or SSRI\$1 or "selective serotonin uptake inhibitor*").ti,kf. (1003325)

10 exp Complementary Therapies/ or Phototherapy/ (253703)

11 (alternative or CAM or complementary or phototherapy).ti,kf. (108177)

12 or/4-11 (5797035)

13 and/3,12 (10092)

14 limit 13 to ("child (6 to 12 years)" or "adolescent (13 to 18 years)" or "young adult (19 to 24 years)") (3873)

15 13 and (adolescen* or child* or college\$1 or juvenile\$1 or preadolescenc* or prepubescen* or preteen* or pubescen* or school\$3 or students or teen* or universit* or "young adult\$1" or "young adulthood" or "young men" or "young people" or "young women" or youth\$1).ti. (1701)

16 or/14-15 (4090)

17 16 not ((exp Animals/ not Humans/) or (animal model* or bitch\$2 or bovine or canine or capra or cat or cats or cattle or cow\$1 or dog\$1 or equine or ewe\$1 or feline or goat\$1 or hamster\$1 or horse\$1 or invertebrate\$1 or macaque\$1 or mare\$1 or mice or monkey\$1 or mouse or murine or nonhuman or non-human or ovine or pig or pigs or porcine or primate\$1 or rabbit\$1 or rat\$1 or rattus or rhesus or rodent* or sheep or simian or sow\$1 or vertebrate\$1 or zebrafish).ti.) (4084)

18 limit 17 to english language (3610)

19 limit 18 to yr="2019 -Current" (839)

20 (meta-analysis or systematic review).pt. or (meta-anal* or metaanal* or ((evidence or review or scoping or systematic or umbrella) adj3 (review or synthesis))).ti. (799180)

21 and/19-20 (54)

22 limit 18 to yr="2017 -Current" (1226)

23 (controlled clinical trial or randomized controlled trial).pt. or (control or controls or controlled or placebo\$1 or random* or trial*).ti,kf. (1473951)

24 and/22-23 (149)

25 Case-Control Studies/ or Cohort Studies/ or Comparative Study/ or Controlled Before-After Studies/ or Cross-Sectional Studies/ or Epidemiologic Studies/ or exp Evaluation Studies as Topic/ or Follow-Up Studies/ or Historically Controlled Study/ or Interrupted Time Series Analysis/ or Longitudinal Studies/ or Prospective Studies/ or Retrospective Studies/ or ("case-control" or cohort\$1 or "before-after" or ((comparative or epidemiologic or evaluation) adj3

study) or cross-sectional or follow-up or (historic* adj4 control*) or "interrupted time" or longitudinal\$2 or prospective\$2 or retrospective\$2).ti,kf. (5662996)
26 and/22,25 (465)

Ovid EBM Reviews - Cochrane Central Register of Controlled Trials December 2022

Date searched: January 24, 2023

1 Suicidal Ideation/ or Suicide, Attempted/ (30299)

2 (suicidality or (suicid* adj3 (attempt* or behavior?r* or ideation or plan* or think* or thought\$1))),ti,kf. (20982)

3 or/1-2 (36642)

4 Therapeutics/ or th.fs. (2103522)

5 (intervention* or manag* or therap* or treat*).ti,kf. (3354027)

6 exp Psychotherapy/ (215671)

7 (psychiatri* or psychologist\$1 or psychotherap* or psychosocial or "social worker\$1" or therapist\$1).ti,kf. (160065)

8 Drug Therapy/ or Clomipramine/ or Duloxetine Hydrochloride/ or Escitalopram/ or Fluoxetine/ or Ketamine/ or Sertraline/ or "Serotonin and Noradrenaline Reuptake Inhibitors"/ or Selective Serotonin Reuptake Inhibitors/ (66785)

9 (drug\$1 or medication\$1 or pharmaco* or nonpharmaco* or pharmaceutical\$1 or antidepress* or anti-depress* or clomipramine or Anafranil or Duloxetine or Cymbalta or escitalopram or Lexapro or Fluoxetine or Prozac or Symbyax or Ketamine or Sertraline or Zoloft or SSRI\$1 or "Serotonin and Noradrenaline Reuptake Inhibitor*" or SSRI\$1 or "selective serotonin uptake inhibitor*").ti,kf. (1003325)

10 exp Complementary Therapies/ or Phototherapy/ (253703)

11 (alternative or CAM or complementary or phototherapy).ti,kf. (108177)

12 or/4-11 (5797035)

13 and/3,12 (10092)

14 limit 13 to ("child (6 to 12 years)" or "adolescent (13 to 18 years)" or "young adult (19 to 24 years)") (3873)

15 13 and (adolescen* or child* or college\$1 or juvenile\$1 or preadolescen* or prepubescen* or preteen* or pubescen* or school\$3 or students or teen* or universit* or "young adult\$1" or "young adulthood" or "young men" or "young people" or "young women" or youth\$1).ti. (1701)

16 or/14-15 (4090)

17 16 not ((exp Animals/ not Humans/) or (animal model* or bitch\$2 or bovine or canine or capra or cat or cats or cattle or cow\$1 or dog\$1 or equine or ewe\$1 or feline or goat\$1 or hamster\$1 or horse\$1 or invertebrate\$1 or macaque\$1 or mare\$1 or mice or monkey\$1 or mouse or murine or nonhuman or non-human or ovine or pig or pigs or porcine or primate\$1 or rabbit\$1 or rat\$1 or rattus or rhesus or rodent* or sheep or simian or sow\$1 or vertebrate\$1 or zebrafish).ti.) (4084)

18 limit 17 to english language (3610)

19 limit 18 to yr="2019 -Current" (839)

20 (meta-analysis or systematic review).pt. or (meta-anal* or metaanal* or ((evidence or review or scoping or systematic or umbrella) adj3 (review or synthesis))).ti. (799180)

21 and/19-20 (54)

22 limit 18 to yr="2017 -Current" (1226)

23 (controlled clinical trial or randomized controlled trial).pt. or (control or controls or controlled or placebo\$1 or random* or trial*).ti,kf. (1473951)

24 and/22-23 (149)

25 Case-Control Studies/ or Cohort Studies/ or Comparative Study/ or Controlled Before-After Studies/ or Cross-Sectional Studies/ or Epidemiologic Studies/ or exp Evaluation Studies as

Topic/ or Follow-Up Studies/ or Historically Controlled Study/ or Interrupted Time Series Analysis/ or Longitudinal Studies/ or Prospective Studies/ or Retrospective Studies/ or ("case-control" or cohort\$1 or "before-after" or ((comparative or epidemiologic or evaluation) adj3 study) or cross-sectional or follow-up or (historic* adj4 control*) or "interrupted time" or longitudinal\$2 or prospective\$2 or retrospective\$2).ti,kf. (5662996)
26 and/22,25 (465)

Ovid APA PsycInfo 1806 to January Week 3 2023

Date searched: January 24, 2023

1 Suicidality/ or Attempted Suicide/ or Suicidal Ideation/ (22061)

2 (suicidality or (suicid* adj3 (attempt* or behavior?r* or ideation or plan* or think* or thought\$1))).ti. (16522)

3 or/1-2 (25151)

4 (intervention* or manag* or therap* or treat*).ti. (439802)

5 exp Psychotherapy/ (218247)

6 (psychiatri* or psychologist\$1 or psychotherap* or psychosocial or "social worker\$1" or therapist\$1).ti,id. (268247)

7 Drug Therapy/ or Clomipramine/ or Duloxetine Hydrochloride/ or Escitalopram/ or Fluoxetine/ or Ketamine/ or Sertraline/ or "Serotonin and Noradrenaline Reuptake Inhibitors"/ or Serotonin Reuptake Inhibitors/ (151948)

8 (drug\$1 or medication\$1 or pharmaco* or nonpharmaco* or pharmaceutical\$1 or antidepress* or anti-depress* or clomipramine or Anafranil or Duloxetine or Cymbalta or escitalopram or Lexapro or Fluoxetine or Prozac or Symbyax or Ketamine or Sertraline or Zoloft or SNRI\$1 or "Serotonin and Noradrenaline Reuptake Inhibitor*" or SSRI\$1 or "selective serotonin uptake inhibitor*").ti,id. (181372)

9 exp Alternative Medicine/ (9554)

10 (alternative or CAM or complementary or phototherapy).ti,id. (21897)

11 or/4-10 (925157)

12 and/3,11 (6858)

13 12 and (adolescen* or child* or college\$1 or juvenile\$1 or preadolescen* or prepubescen* or preteen* or pubescen* or school\$3 or students or teen* or universit* or "young adult\$1" or "young adulthood" or "young men" or "young people" or "young women" or youth\$1).ti. (1525)

14 limit 13 to english language (1398)

15 limit 14 to yr="2019 -Current" (276)

16 limit 15 to ("0830 systematic review" or 1200 meta analysis) (13)

17 limit 14 to yr="2017 -Current" (360)

18 limit 17 to "0300 clinical trial" (23)

19 limit 17 to ("0430 followup study" or "0450 longitudinal study" or "0451 prospective study" or "0453 retrospective study" or 1800 quantitative study) (252)

Value

We assessed the nomination for value. We considered whether or not the clinical, consumer, or policymaking context had the potential to respond with evidence-based change, if a partner organization would use this evidence review to influence practice, and if the topic supports a priority area of AHRQ or the Department of Health and Human Services.

Appendix B. Selection Criteria Assessment

Selection Criteria	Assessment
1. Appropriateness	
1a. Does the nomination represent a health care drug, intervention, device, technology, or health care system/setting available (or soon to be available) in the United States?	Yes.
1b. Is the nomination a request for an evidence report?	Yes.
1c. Is the focus on effectiveness or comparative effectiveness?	Yes.
1d. Is the nomination focus supported by a logic model or biologic plausibility? Is it consistent or coherent with what is known about the topic?	Yes.
2. Importance	
2a. Represents a significant disease burden; large proportion of the population	Suicide is the second leading cause of death among high school-aged youths. In 2019, 18.8% of high school students reported having seriously considered suicide. ¹
2b. Is of high public interest; affects health care decision making, outcomes, or costs for a large proportion of the United States population or for a vulnerable population	Yes. Suicide is the second leading cause of death among high school-aged youths. In 2019, 18.8% of high school students reported having seriously considered suicide. Higher risk groups included females and lesbian, gay, or bisexual youths. ¹
2c. Incorporates issues around both clinical benefits and potential clinical harms	Yes.
2d. Represents high costs due to common use, high unit costs, or high associated costs to consumers, to patients, to health care systems, or to payers	Yes. In 2019, suicide and nonfatal self-harm cost the nation nearly \$490 billion in medical costs, work loss costs, value of statistical life, and quality of life costs. ²³
3. Desirability of a New Evidence Review/Absence of Duplication	
3. A recent high-quality systematic review or other evidence review is not available on this topic	Yes. We did not find a systematic review that covers the scope of the nomination.
4. Impact of a New Evidence Review	
4a. Is the standard of care unclear (guidelines not available or guidelines inconsistent, indicating an information gap that may be addressed by a new evidence review)?	Yes. There are no guidelines.
4b. Is there practice variation (guideline inconsistent with current practice, indicating a potential implementation gap and not best addressed by a new evidence review)?	Yes. Treatment is usually conducted by a licensed mental health professional and occurs over multiple sessions, but there is variation in the specific type of treatment delivered. ²
5. Primary Research	
5. Effectively utilizes existing research and knowledge by considering: - Adequacy (type and volume) of research for conducting a systematic review - Newly available evidence (particularly for updates or new technologies)	<i>Size/scope of review:</i> We found 18 primary studies from a sample of 200 out of 764 and estimate the size of a systematic review to be medium.
6. Value	
6a. The proposed topic exists within a clinical, consumer, or policy-making context that is amenable to evidence-based change and supports a priority of AHRQ or Department of Health and Human Services	Yes. The nominators would develop a guideline to be used to influence practice, and the topic is in alignment with AHRQ's mission to use evidence to make health care safer, higher quality, more accessible, equitable, and affordable.

6b. Identified partner who will use the systematic review to influence practice (such as a guideline or recommendation)	Yes. The American Psychological Association would use a systematic review to develop guidelines.
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Abbreviations: AHRQ=Agency for Healthcare Research and Quality.