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Practitioner Review: Treatment for suicidal and self-harming adolescents – advances in suicide prevention care

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Abstract

Background: Suicide is a leading cause of death globally in youths and suicidal behavior and self-harm are major clinical concerns. This article updates the previous practitioner review (2012) with the aims of integrating new research evidence, including that reported in this Special Issue.

Methods: The article reviews scientific evidence related to steps in the care pathway for identifying and treating youths with elevated suicide/self-harm risk, specifically: 1) screening and risk assessment; 2) treatment; and 3) community level suicide prevention strategies.

Results: Review of current evidence indicates that major advances have been achieved in knowledge regarding clinical and preventive practices for reducing suicide and self-harm risk in adolescents. The evidence supports the value of brief screeners for identifying youths with elevated suicide/self-harm risk and the efficacy of some treatments for suicidal and self-harm behavior. Dialectical behavior therapy currently meets Level 1 criteria (2 independent trials supporting efficacy) as the first well-established treatment for self-harm, and other approaches have shown efficacy in single randomized controlled trials. The effectiveness of some community-based suicide prevention strategies for reducing suicide mortality and suicide attempt rates has been demonstrated.

Conclusions: Current evidence can guide practitioners in delivering effective care for youth suicide/self-harm risk. Treatments and preventive interventions that address the psychosocial environment and enhance the ability of trusted adults to protect and support youths, while also addressing the psychological needs of youths appear to yield the greatest benefits. Although additional research is needed, our current challenge is to do our best to effectively utilize new knowledge to improve care and outcomes in our communities.

Keywords

Suicide; self-harm; adolescence; prevention; screening

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Introduction

Suicide is among the leading causes of death for adolescents and remains a major public health concern. In some nations, such as the United States, suicide is the second leading cause of death among adolescents and young adults; and suicide rates have been increasing, whereas other major causes of death such as motor vehicle accidents have declined (Centers for Disease Control and Prevention, 2019). Even more prevalent in the young is non-fatal self-harm; a strong predictor of later death by suicide and future self-harm. In 2012, when the last Practitioner Review on Self-harm in Adolescents was completed (Ougrin, Tranah, Leigh, Taylor, & Asarnow, 2012), there existed no empirically validated interventions or treatments to reduce suicidal and self-harming behaviors in adolescents and the review concluded by underscoring the need for research to develop therapeutic interventions for treating self-harm in adolescents. This situation has, fortunately, changed in recent years after several clinical approaches demonstrated their effectiveness (for review, Glenn, Esposito, Porter, & Robinson, 2019). Still, we are just beginning to establish a robust evidence base for clinical and preventive practice in the field of youth suicidal behavior and self-harm. The collection of papers in this issue provides important additions to this evidence base. Here, we aim to update the previous practitioner review, with an emphasis on integrating new research reported in this issue and the broader field.

Before proceeding to the update, it is important to note some cross-national differences. The approach in Europe and most other parts of the world (although there are exceptions) is generally to consider self-harm as a broad category, inclusive of suicide attempts (SAs), nonsuicidal self-injurious behavior (NSSI), and self-harm with ambiguous intent. This approach is due partly to difficulties in determining intent, the tendencies for youths to shift self-harm methods, and the increased risk of later SAs and deaths among youths engaging in self-harm regardless of intent (Hawton et al., 2012; Ribeiro et al., 2016). Alternatively, in North America, the emphasis is frequently on distinguishing between self-harm with and without suicidal intent. This has led to much of the work from the United States (U.S.), focusing on youths who make SAs or including youths with SAs, suicidal ideation (SI), and/or suicidal events (generally defined as severe SI leading to emergency intervention) within a broad category of “suicidal youths (e.g. Asarnow et al., 2011, Esposito-Smythers 2011; King et al., 2019a). Others have examined broadly defined self-harming youths (e.g. Mehlum et al., 2014; Ougrin, Boege, Stahl, Banarsee, & Taylor, 2013; Rossouw & Fonagy, 2012), and others have evaluated NSSI (e.g. Miller et al., 2019). However, due to the relative rarity of SAs compared to NSSI, a broad self-harm category will include substantially more NSSI incidents relative to SAs. While there are exceptions, these cross-national differences create challenges for combining results across studies and offering clinical guidance that fits the needs of practitioners in different countries and practice settings. In this article, the term self-harm refers to SAs, NSSI, and ambiguous self-harm as a group. SA refers to self-harm with some suicidal intent, NSSI to self-harm without suicidal intent, and SA/self-harm is used when evidence holds for both overall self-harm and SAs.

Accumulating data indicate that youths with self-harm histories are at increased risk of suicide deaths and increased risk of death by other unnatural causes, such as overdoses (Hawton et al., 2012; Morgan et al., 2009). These results in conjunction with evidence

reported in this issue that health risk behaviors such as substance abuse are associated with increased risk of SAs (Barzilay et al., 2019; King et al., 2019b) underscore the importance of clinical evaluation and monitoring of substance use in youths with suicide/self-harm risk.

This review proceeds through the care pathway for identifying and treating youths with elevated suicide/self-harm risk. In the sections below, we review the following steps in the care pathway: 1) screening and risk assessment; 2) treatment; and 3) community level suicide prevention strategies.

Step 1: Screening and risk assessment

Screening and risk assessment builds on accumulating knowledge regarding risk and protective factors. We have learned that youths at risk for SAs and later suicide are a heterogeneous group and there are multiple pathways by which a youth engages in potentially lethal self-harm or chooses to end his/her life. This has led to a broad group of identified risk and protective factors across studies, and when examined with diverse populations these risk factors contribute small amounts of variance (Franklin et al., 2017). Contrary to the argument that this indicates that the field has made little progress, the impressive results from the Emergency Department Screening for Teens at Risk for Suicide Study (ED-STARs) presented in this issue (King et al., 2019b) support cross-study consistency of observed effects, and begin to move us towards more effective screening strategies.

ED-STARs examines predictors of suicide attempts in the 3 months following an ED visit in over 6000 ED patients, ages 12–17, drawn from 14 ED sites across the U.S. Examining risk and protective factors drawn from prior research, study results indicated significant bivariate effects for all examined risk and protective factors. Further, multivariate analyses underscored the significance of recent SI, lifetime suicidal behavior, and low levels of school connectedness as risk factors within the full sample. These findings demonstrate that, given sufficiently powered studies, for the most part results can be replicated across studies using similar populations.

Consistent with the heterogeneity among youths at elevated SA/suicide risk, ED-STARs results also indicate variation in the most parsimonious set of predictors for males and females, and for youths initially presenting with and without SI. For males and females the final multivariate model included past-week SI and lifetime history of suicidal behavior. For females (but not males) past-year NSSI incidents and social connectedness were significant predictors. These data are consistent with accumulating results underscoring the strength of NSSI as a predictor of SAs in primarily female samples (for review, Ougrin et al., 2012), and the value of treatment approaches that target youths with overall self-harm regardless of subtype (SA, NSSI) particularly when accompanied by SI (Bjureberg et al., 2018). Future work on ED-STARs will test innovative screening approaches including a brief computerized adaptive screen that considers multiple risk factors, and “laboratory-based” behavioral measures of suicidality.

History of maltreatment and exposure to traumatic stress (e.g., abuse, peer victimization) have been shown to be associated with increased risk of SAs in two studies in this issue

(King et al., 2019b; Zelazny et al., 2019) and with self-harm in Russell (2019). Consistent with prior work, these findings underscore the importance of a trauma-informed approach to suicide/self-harm screening and care which assesses for and considers current and past exposure to traumatic stress.

The value of looking at within-individual variability to identify periods of risk is highlighted in the report by Miller and colleagues (2019). Results indicated that adolescents were at highest risk for NSSI during times when they experienced higher stress levels, relative to their average stress levels. This suggests the value of monitoring high-risk youths and intervening during times of risk. Such targeted timing of intervention using ecological momentary assessments and interventions could enhance treatment benefits during both acute treatment and longer-term monitoring/follow-up.

Since the prior review, there have been major advances in suicide risk screening and stratification protocols. Extensive data support the value and feasibility of brief screeners for suicide-risk in ED and other settings, with perhaps the most extensive data available for the Columbia Suicide Severity Rating Scale (C-SSRS; Posner et al., 2011) which can be administered with adolescents and adults, and the Ask About Suicide Questionnaire (ASQ; Horowitz et al., 2012) which has been used with child to young adult patients (ages 8–21 years).

With increasing emphasis on screening for suicide-risk many U.S. health systems have developed care pathways that include screening using evidence based screeners, follow-up assessments for positive screens, guidelines for risk stratification, and recommended actions for individuals at different risk levels. This has been incorporated within broader “Zero Suicide” quality improvement initiatives which aim to move towards the aspirational goal of eliminating suicides through quality improvement initiatives (<https://zerosuicide.sprc.org/>).

Another approach for increasing our ability to identify and effectively care for youths at risk for suicide/self-harm involves systematic mining of electronic health records and use of machine learning algorithms to identify at-risk youths. A recent JCPP article by Walsh and coworkers (2018) illustrates how computational algorithms may predict suicide risk using longitudinal routinely collected data. Such machine learning approaches may offer scalable methods for broad screening within health systems and help us to get life-saving care to youths with need.

Step 2: Treatment

The reports in this issue highlight the progress made in knowledge regarding effective treatment for youths presenting with self-harm. We now have two independent randomized controlled trials demonstrating that Dialectical Behavior Therapy (DBT) is an effective treatment for reducing self-harm, compared to two different active comparators (usual care (UC) in Norway, Mehlum et al., 2019; Individual and Group Supportive Therapy (IGST) matched to DBT for treatment dose offered in the U.S. trial (McCauley et al., 2018).¹ The

¹Please note our disclosure that the authors include the Principal Investigator (PI) of the Norwegian trial (Mehlum), and one of the PIs for the U.S. trial (Asarnow with Multiple-PIs Linehan, McCauley and Berk).

U.S. trial was larger and demonstrated a significant benefit of DBT for reducing SAs at 6-months, as well as any self-harm at post-treatment (6-months) and 12-month follow-up (McCauley et al., 2018). These collective results support DBT as the first well-established treatment for self-harm based on the criteria of two independent trials supporting efficacy.

The article by Mehlum et al. (2019) provides important new information on longer-term outcomes of DBT for adolescents with suicidal and self-harming behavior. In their 3-year follow-up, DBT remained superior to clinic UC in reducing the frequency of self-harm. For other clinical outcomes (e.g. borderline symptoms, depression) there were no significant between-group differences, with no sign of symptom relapse in either group. This consistently larger long-term reduction in self-harm for adolescents receiving DBT is important from a suicide preventive perspective and with respect to quality of life. Importantly, a reduction in participants' experience of hopelessness during the trial treatment phase served as a mediator of the effect of DBT on self-harm frequency over the long-term. Intense hopelessness may impede adolescents' willingness, or ability, to give up self-harm and try alternative emotion regulation strategies. Therefore, clinicians should address and treat hopelessness actively, for example by using cognitive strategies such as psychoeducation, helping adolescents link problem-behaviors to their goals, teaching coping skills and coaching on how to use these skills in daily life, and instilling hope regarding benefits of treatment.

While we currently have the strongest empirical support for DBT, other treatments have shown promise in single trials. These treatments range from mentalization-based treatment, family and parenting treatments, and a variety of cognitive-behavior therapies (CBTs). However, there have also been negative trials, underscoring the importance of careful consideration of the key components needed to disrupt suicidal/self-harm tendencies and the complex pathways leading to self-harm (for reviews, Glenn et al., 2019; Iyengar et al., 2018; Ougrin, Tranah, Stahl, Moran, & Asarnow, 2015).

These data documenting the efficacy of relatively intensive outpatient treatment approaches underscore the point that we have safe alternatives to psychiatric hospitalization for a sizeable subgroup of youths with elevated SA/self-harm risk. Moreover, data from randomized controlled trials indicate benefits of intensive community-based services, compared to usual inpatient hospital care, on self-harm variables (Ougrin et al., 2018; Huey et al., 2004). These collective data underscore the value of intensive community treatment for improving the youths' abilities to cope with environmental stress without engaging in self-harm while avoiding the potential for exposure to self-harm related talk or behavior within psychiatric inpatient settings.

Replication of initial findings for any promising novel intervention is extremely important, yet this frequently proves challenging, as evident from the article by Esposito-Smythers et al. (2019). Building on the success of their prior small trial in which an integrated CBT for youths with substance use disorders plus SI or SAs led to significantly fewer SAs compared to usual care (Esposito-Smythers et al., 2011), Esposito-Smythers et al. (2019) report on a second larger trial with a somewhat different population (included youths with co-occurring risk factors other than substance use disorder, and required presence of depressive disorder)

and somewhat different CBT (expanded focus). With these protocol differences, there was no evidence of an advantage of the new Family Focused-CBT (F-CBT), compared to UC enhanced with supportive follow-up contacts and medication treatment by the study psychiatrist.

Consistent with the earlier point regarding heterogeneity in the population of youths at risk for suicide/SH, the variation in sampling characteristics combined with possible improvements in UC underscore the importance of carefully defining samples and targeting treatment to the needs of individual youths. The initial Esposito-Smythers trial (2011), which focused on youths with co-occurring suicidality and substance use problems, found striking improvements in substance use which may have been an important driver of reduced SAs. This would not have applied consistently across the new trial. Other features of the later sample and methods, compared to the earlier study, could also explain the discrepant results, including: greater severity and acuity of psychopathology; higher rate of anxiety disorders; higher use of partial hospitalization/stepped down services; and a more lenient definition of SAs. It is also possible that F-CBT is comparable to UC in the study-community, that effect sizes are marginal, or that we are in danger of making type II errors that will set back knowledge development. Among lessons learned for practitioners and researchers is that studies need to be adequately powered, that we need to ensure that assessment measures are optimally suited to measure primary outcomes, and careful sample description and replication are essential for providing the information we need to advance care.

Adrian et al.'s (2019) report on the U.S. DBT trial (McCauley et al., 2018) addresses the important issue of how to personalize treatment and match individuals to treatments that are most likely to be beneficial. Results suggests that it was, overall, the adolescents who seemed to need treatment the most (having more extensive self-harm histories, more externalizing symptoms, higher conflict families) who seemed to benefit the most from treatment. Still, DBT was associated with significantly stronger treatment gains than IGST for adolescents who had higher baseline emotion dysregulation and had parents with more severe emotion dysregulation, while the same was not the case for adolescents who had a more severe self-harm history and comorbidities. These latter factors served as predictors of future self-harm during the trial, regardless of treatment condition. For both clinicians and consumers of mental health services the implication of these findings is that DBT may be best suited for adolescents – and their parents – who struggle with emotion dysregulation.

In summary, while negative trials and failures to replicate are to be expected, the weight of the evidence supports the value of a variety of treatments for youths presenting with self-harm and suicidality (Glenn et al., 2019; Ougrin et al., 2015; Iyengar et al., 2018). It also merits note, that analyses across trials support the importance of including a strong family component in the treatment of suicidality and self-harm, as evidence for efficacy was stronger for interventions (like DBT) that included a strong family component combined with individual treatment in both meta-analyses (Ougrin et al. 2015) and systematic reviews (Glenn et al., 2019, Iyengar et al., 2018). It may be that just as seat belts have been instrumental in reducing deaths by traffic accidents, we may need to support parents and

trusted adults in youths' lives to function like "protective seatbelts" and keep them safe during times of acute pain and emotional distress (Asarnow et al., 2017).

Step 3: Community level care strategies & universal community suicide prevention

New results on the U.S. Garrett Lee Smith Suicide Prevention Program (GLS), support the longer-term effectiveness of universal community-based suicide prevention approaches for reducing youth suicide mortality (Godoy-Garraza et al., 2019). From the practitioner perspective, it is important to note that GLS programs were diverse and adapted for their communities. Program activities included: gatekeeper training, outreach and awareness strategies, screening and early detection strategies, clinical services, continuity of care and means restriction (Goldston, et al., 2010). Gatekeeper training was included across GLS programs and used as an indicator of program implementation in the study. Thus, one factor contributing to the effectiveness of GLS may have been the ability of communities to identify individuals with elevated suicide- risk and link them to clinical services, highlighting the importance of practitioner care in combination with community-wide suicide prevention activities.

In the new GLS evaluation (Godoy-Garraza et al., 2019), comparisons of counties and tribal communities implementing GLS, with matched control counties, indicated significantly lower youth suicide mortality rates in GLS counties, with an estimated 882 deaths avoided/lives saved between 2007 and 2015. The benefits of GLS programs were significantly stronger and more long-lasting than previously known, particularly in rural counties. Communities implementing GLS activities for 7 years were estimated to have 13.3 fewer deaths per 100,000 youths, compared to 3.32 fewer deaths per 100,000 youths in communities implementing these programs for only one year. Importantly, however, by two years after GLS activities ended, benefits waned.

The article by Wyman et al. (2019) highlights the importance of school-based suicide prevention activities, as well as the importance of attending to the school environments of youths who are in treatment for SA/self-harm risk. In this analysis of school networks across 38 U.S. high schools, SAs were found to be more frequent in youths who were more isolated from adults and exposed to suicidal friends. Similarly, in schools with higher SA rates, youths experiencing SI or suicidal behavior tended to have higher relative popularity among their peers, and more students were isolated from adults. In schools with lower SA and SI rates, a relatively small group of adults were identified as trusted adults by students. These findings have important implications both for developing school-based suicide prevention, and highlight possible protective patterns that practitioners can use to enhance their treatments. As in the King et al. study (2019a) that found that enhancing adult social support through activating a "Youth Nominated Support Team" led to reduced deaths 14 years later, these results underscore the potential benefits of practitioner interventions that aim to strengthen connections with supportive adults in the schools of their patients. These findings are also consistent with the approach of mobilizing social/environmental strengths, included as a key component in several of the treatment interventions that have been shown to yield benefits such as DBT, SAFETY, and Multisystemic Therapy (Huey et al., 2004). From the perspective of practitioners in schools and other group settings, the Wyman et al. (2019)

results highlight the potential of network-informed suicide prevention that strengthens protective bonds within the population, increases connections between youths and a small number of adults who can serve a protective function, and promoting the influence of healthy youths who are free of SH and suicidal tendencies.

More direct evidence for the value of universal school-based suicide prevention is provided by the report by Barzilay et al. (2019) on the Saving and Empowering Young Lives in Europe (SEYLE) study. The primary SEYLE finding was that the Youth Aware of Mental Health program (YAM), was significantly more effective than a no-intervention control condition in preventing youths from developing SAs and or severe SI, with a greater than 50% reduction in SAs among YAM youths, relative to controls (Wasserman et al., 2015). YAM is a manualized intervention that aimed to increase mental health awareness about suicide risk and protective factors and depression, and to strengthen skills for coping with stress and suicidality.

Barzilay et al. (2019) found that among YAM youths the effect of health risk behaviors (e.g. smoking, substance use, risky sexual behavior) on increasing the likelihood of repeated SAs (versus no SAs) was reduced, relative to controls. Further, while the combination of baseline SI and SH was associated with increased likelihood of repeat SAs over 12 months among control-youths (no study intervention), this was not the case for youths receiving the SEYLE interventions (YAM; Screening by Professionals; Question, Persuade and Refer). These data suggest that the YAM intervention effectively targeted mechanisms through which health risk behaviors at baseline impacted SA-risk 12-months later, and that all of the interventions reduced the interactive effect of baseline SI plus self-harm on increasing SA-risk, perhaps by improving identification and care for youths with elevated SA risk. School-based preventive interventions may have power for reversing these risk mechanisms.

The new results presented in this issue, combined with other data supporting the value of some suicide prevention programs for reducing later SAs, highlight the promise of community-based suicide prevention strategies for reducing youth suicide and SA rates (for review, Wilcox & Wyman, 2016). Given the heterogeneity and complexity of pathways to suicide deaths, an approach that includes effective universal, secondary, and tertiary prevention strategies will likely yield the greatest benefits at a population level. For tertiary prevention among youths who have already shown self-harm behavior/tendencies, intensive community treatment strategies that reduce unnecessary exposure to hospitalization and crisis services may be an important component (Ougrin et al., 2018; Coyle et al., 2018).

Suggestions for clinical guidance

This practitioner update highlights the progress made since the prior review (Ougrin et al. 2012) and implications for clinical care. With the caveat that our science is evolving and results do not always replicate, we offer suggestions for clinical guidance.

1. Given that suicide is a leading cause of death among young people, screening for suicide-risk when accompanied by resources for addressing identified risk is indicated. Feasible evidence-informed screeners, screening protocols, and risk stratification algorithms exist and are widely available (<https://>

www.nimh.nih.gov/research/research-conducted-at-nimhnimh/asq-toolkit-materials/index.shtml; <http://cssrs.columbia.edu/documents/c-ssrs-screener-triage-primary-care/>; <https://intermountainphysician.org/clinical/bh/Topics/Pages/Suicide-Screening.aspx>].

2. Treatments with demonstrated efficacy for treating self-harm and SA risk have been identified. While DBT currently meets Level 1 criteria for an efficacious treatment for reducing self-harm in adolescents (2 independent trials by different research teams), DBT is an intensive treatment and participation in DBT limits potential for other important activities (e.g. homework, sports, friends) which can also yield benefits. Other promising treatments have been identified, could prove superior to DBT, and we are beginning to learn about how best to personalize treatment approaches to best match individuals to the treatments that are most likely to be beneficial. Indeed, current work is evaluating stepped care protocols which aim to match the intensity of services offered to the level of risk identified.
3. A key message from existing research is that treatment for SA/self-harm must consider the family and youth's social environmental context. Both treatments and preventive interventions that address the psychosocial environment, and enhance the ability of trusted adults in the youths' lives to protect and support them, appear to yield the greatest benefits. Identification and activation of parents and trusted adults who can function like "protective seatbelts" and keep youths safe during moments when they experience suicidal/SH urges may enhance the outcomes of care regardless of the type of treatment delivered. (Asarnow et al., 2017; King et al., 2019b; Wyman, 2019).
4. Most youths spend a great deal of time in school, the impact of the school environment cannot be ignored as patterns within schools are associated with differences in the risk of SI and SAs. Practitioners in both school and mental health settings should consider the school environment in their treatment plans and work to enhance protective influences within the school. More attention is also needed to media exposure and internet use patterns among our youths as these may impact suicide/self-harm risk; a point underscored by the disturbing increase in youth suicide deaths in the U.S., compared to expected rates, after the release of a Netflix series involving a fictional portrayal of suicide and traumatic stress that did not follow recommendations for responsible presentation of media content to prevent possible suicide contagion (Durkee et al., 2016; Niederkrotenthaler et al., 2019)
5. Given that many youths presenting with SA/self-harm are receiving medication treatments, there is a notable lack of evidence on pharmacotherapy. While the heterogeneity of the population and variation in presenting clinical disorders may contribute to this lack of research, data are needed to inform clinical care. The high levels of depression in this population in conjunction with the warnings issued regarding possible increases in suicidality with antidepressant treatment in some youths (US Food and Drug Administration, 2018; Hetrick, et al., 2012) and the widespread, but not empirically supported, use of polypharmacy in

adolescents with SA and/or NSSI underscores the importance of research to further inform clinical care.

6. A trauma-informed approach to care for suicide/self-harm risk is needed both due to the strong associations between traumatic stress exposure and suicidality/self-harm, and the impact of suicidal behavior on parents and others in youths' social environments. Practitioners may also experience secondary traumatic stress when working with highly suicidal self-harming youths. Knowing the signs and symptoms of trauma, integrating knowledge about trauma into care practices, taking action to prevent re-traumatization and exposure to secondary traumatic stress, and self-care are important for ensuring optimal care (SAMHSA, 2014).
7. Both community-wide and school based universal suicide prevention programs have strong promise for tackling the problem of increasing youth suicide rates. These programs work when implemented and appear to provide access to life-saving care to vulnerable youths. Sustaining these programs is crucial, as effects wane when programs are discontinued.
8. Improving access to care is critical for improving youth outcomes. Community and school-based suicide preventive care provides one avenue for increasing access to care, as does integrated medical-behavioral health care and e-health and m-health technologies to increase the number of youths who receive needed services (Kaess et al., 2019; Kennard et al., 2018; Asarnow & Miranda, 2014).

Conclusions

Research presented in this Special Issue highlights the advances achieved in knowledge regarding treatment for suicidal and self-harming youths as well as suicide prevention strategies. Much has been learned since the 2012 practitioner review. Although additional research is needed, these advances in knowledge can help us to enrich suicide/self-harm preventive care with evidence on the most effective care strategies and meet the challenging of doing our best to improve care and outcomes in our communities.

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Key points

- Suicide is a leading cause of death globally in youths and suicidal behavior and deliberate self-harm are major clinical concerns; this article updates the 2012 practitioner review by integrating new research evidence on youths.
- Current evidence supports: 1) the value of brief screeners for detecting elevated suicide risk; the efficacy of some treatments for suicidal and self-harm behavior, with dialectical behavior therapy currently meeting Level 1 criteria (2 independent trials supporting efficacy) as the first well-established treatment for deliberate self-harm, and 3) the effectiveness of some community-based suicide prevention strategies for reducing suicide mortality and suicide attempt rates.
- Treatments and preventive interventions that address the psychological needs of youths while also enhancing the ability of trusted adults to protect and support youths and strengthen protective processes in the environment appear to yield the greatest benefits.