# School-Based Suicide Risk Assessment Using eHealth: A Scoping Review

CIHR Knowledge Synthesis Initial Report 06/22/2020

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## 1. Background

Suicide is the second leading cause of death for Canadian youth.<sup>1</sup> Beyond prematurely ending the life of a young person, suicide has wide-reaching negative impacts on friends, family and the larger community.<sup>2</sup> Suicide also has substantial economic costs (e.g., health care).<sup>3</sup> In the context of COVID-19, suicide risk for some youth may be elevated due to social isolation and associated mental health impacts of the pandemic.<sup>4,5</sup> In addition, due to school closures, most youth do not currently have in-person contact with the school personnel who play a critical role in identifying risk for suicide and supporting youth to seek help. Instead, school staff may find themselves identifying students at risk when they connect with youth virtually/remotely, and may be uncertain about how to best support the student when they are not face-to-face. Thus, this knowledge synthesis explores promising practices for conducting school-based suicide risk assessment with youth via eHealth in the context of COVID-19.

#### 1.1 Suicide Prevention and the Role of Schools

Because of their frequent access to most youth in Canada, schools are a key suicide prevention and intervention site. In the non-COVID context, school personnel are in daily contact with students, and thus have multiple opportunities to intervene. <sup>6-9</sup> Further, since many youth at risk for suicide are reluctant to ask for help, 10 school personnel play an important role in actively screening and referring at-risk youth to appropriate community-based services (e.g., mental health clinics, emergency departments). However, while school personnel play a critical role in providing targeted intervention (i.e., initial response, risk assessment), training on how to assess for risk effectively, and the use of standardized school policy that guides referrals to community-based intervention, is not available in most schools. 11-15 For example, in 2013, the Alberta Centre for Injury Control and Research completed an environmental scan with 45 school divisions across the province regarding their school-based suicide prevention practices. 16 In this scan, they found that school-based suicide prevention practices (including risk assessment) were lacking, and that practices that were implemented tended to be one-off approaches that relied on a single individual to respond to all student concerns related to suicide. For students identified as at-risk, standardized referral pathways to community-based supports were also uncommon. A lack of standardized protocols for suicide risk assessment

leads to both false positives (i.e., over-response to disclosures that do not indicate an immediate crisis) and false negatives (i.e., under-response for students in need of immediate attention). Both of these outcomes are detrimental for all involved stakeholders. <sup>17</sup>

#### 1.2 A School-Based Suicidal Ideation Response Protocol

In response to these findings, and the noted lack of training/support for school personnel on appropriate, evidence-based suicide risk assessment, a group of school mental health stakeholders in Alberta convened a multi-sector working group in 2017 (led by Alberta Health Services). The group's goal was to create a standardized suicide risk assessment protocol for schools across the province. Together, the multi-sectoral team (representing health, education, community providers and academia) developed a multi-component protocol and related training, called the School-Based Suicidal Ideation Response Protocol (the SI Protocol). The SI Protocol is grounded in best practice recommendations from the National Association of School Psychologists<sup>18</sup> and SAMHSA<sup>19</sup>, and has standardized response patterns for school teachers/support staff, school point people, school mental health professionals, and school administrators. Each specific response pattern contains a step-by-step process for responding to a distressed student, with activities that are appropriate to the person's role and training. Implementation of the SI Protocol is supported by a free, online training co-developed by the team. The protocol was launched in August 2019, and has been implemented in over 100 schools in four school divisions in Alberta to date. Internal evaluation data indicate the protocol is highly successful in preparing school staff and mental health professionals to intervene with students at risk for suicide. Initial data also indicate that use of the SI Protocol has reduced the number of students sent to emergency departments inappropriately (specificity), and has increased admission rates for students who are sent to the emergency department (sensitivity).

1.2.1 School-Based Suicide Risk Assessment in the Context of COVID-19. Given nationwide school closures that occurred due to COVID-19 in March 2020, schools across Canada now need to provide school-based mental health services – including suicide risk assessment – through virtual or remote technologies (e.g., telephone, text, Zoom, Google Meet). In our own context, partner school divisions in Alberta have shared that they are still implementing the *SI Protocol* virtually/remotely, but do not know optimal practices for e-delivery (e.g., building rapport and safety in an online environment, maintaining connections with vulnerable youth), leading to

concerns over safety and effectiveness for students expressing suicide risk in these challenging times. Given the increased mental health distress some youth may experience during and following disaster situations<sup>20-22</sup> – including COVID-19<sup>4,5</sup> – virtual/remote use of suicide risk assessment protocols is likely to be an ongoing need, and thus guidance on e-delivery is critically needed, in Alberta and beyond. To fill this evidence gap, this report explores promising practices for conducting school-based suicide risk assessment with youth via eHealth (i.e., the use of information and communication technologies in healthcare).

#### 1.3 Knowledge Synthesis Research Question and Objective

This rapid knowledge synthesis aims to address the following research question: What are promising practices for providing school-based suicide risk assessment to youth using eHealth? The overall purpose of our knowledge synthesis is to summarize current evidence on key recommendations for virtual/remote implementation of suicide risk assessment, including needs, strengths and gaps, and to apply these recommendations to the school context. To address this question and objective, we used a systematic scoping review methodology, <sup>23-26</sup> per the PRISMA Extension for Scoping Reviews (PRISMA-ScR) checklist. <sup>27</sup> We chose this methodology as it is appropriate for rigorously but rapidly understanding key concepts in areas not previously the focus of systematic study, where the goal is to summarize and mobilize existing research to knowledge users and decision makers. To gather the most up-to-date information, we include both peer-reviewed and grey literature in our review (recognizing that substantial information on virtual/remote risk assessment is likely available via professional associations and health/school authorities). In this initial draft of our knowledge synthesis, we present data from Phase One of our search, conducted between May 22-June 22, 2020.

#### 2. Phase One Methods

#### 2.1 Search Strategy

The search protocol for this project was co-developed by the research team, and reviewed by a medical research librarian and the Centre for Suicide Prevention before searches were conducted. To locate relevant peer-reviewed literature for this scoping review, we searched six databases (PsycINFO, Medline, EMBASE, CINAHL, ERIC and Education Research Complete) on May 28<sup>th</sup>, 2020. Searches were all conducted by the first author. Search terms were *(youth OR*)

adolescen\* OR teen\* OR child\*) AND (risk OR suicid\* OR safety OR self-harm OR self-injury OR "self-injur\* behavio\*") AND (assessment\* OR screen\*) AND (eHealth OR telepsychology OR telehealth\* OR remote\* OR virtual OR web-based OR online OR mobile health OR mHealth OR telemedic\* OR e-Health OR apps OR computer-based OR digital technolog\* OR e-resources OR e-support\* OR internet OR iphone\* OR smartphone\* OR teleconsult\* OR tele-consult\* OR telehealth\* OR tele-medic\* OR telemonitor\* OR tele-monitor\* OR telepsychiatr\* OR tele-psychiatr\* OR teletherap\* OR tele-therap\* OR tele-psychology OR virtual care OR website\*). We searched the first three search strings (the adolescent terms, the risk terms and the assessment terms) as individual subject headings and as title/abstract search strings in each database. We searched the final search string (the technology terms) as a title search string only, to increase the relevancy of returns.

#### 2.2 Inclusion Criteria

Searches were restricted to peer-reviewed articles published in English in the prior 20 years (i.e., 2000-2020). We made this restriction as we hypothesized that most eHealth articles would be relatively recent (in addition, a special issue on eHealth ethics<sup>a</sup> was published in 2000, and a Google Scholar search of the term "eHealth" indicated that the first full-text articles on this topic primarily began to appear after the year 2000). To be broadly inclusive, searches were not restricted by geographic region or methodology. To be included, articles needed to provide information relevant to completing suicide risk assessments with youth in a virtual/remote environment. Articles were excluded if they did not make relevant recommendations; if risk assessments were not completed virtually/remotely within the study; if the study did not focus on risk assessment; if the full text wasn't available<sup>b</sup>; or the study was a duplicate (Figure 1).

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<sup>&</sup>lt;sup>a</sup> Eysenbach G. Towards ethical guidelines for e-health: JMIR theme issue on eHealth ethics. *J Med Internet Res.* 2000;2(1):e7.

<sup>&</sup>lt;sup>b</sup> One article where full text was not available (abstract only) appeared extremely relevant. In their retrospective review of the effectiveness of telepsychiatry services for youth aged 12-17, Jain and Willis<sup>28</sup> report that clinicians were able to effectively interpret non-verbal clues, and that "telepsychiatry is an effective method of doing intricate and safe assessments [for suicide risk] in at-risk youth" (p. S224). We will work to obtain the full text from these authors in the next phase of our knowledge synthesis process.

#### 2.3 Review Procedures

Screening of located articles was completed using Covidence by a team of five research assistants from the University of Calgary (three doctoral students in school and applied child psychology (SG, MVB, CFC); one master of social work student (RRR); and one undergraduate psychology honours student (EV)). Research assistants reviewed the title and abstract of each of the 2,114 potential articles in pairs of two (Figure 1). Each member of the pair independently reviewed each article. If the pair did not agree on an inclusion decision, they met to come to consensus. After screening, 107 articles remained for full-text review (Figure 1). Given the expedited nature of this search, all full-text articles were reviewed by the first author. Following full-text review, 95 articles were excluded because they did not meet inclusion criteria (Figure 1), leaving a final sample of 12 articles that provided recommendations relevant to the objective of this review (Table 1). However, no articles were found that directly focused on promising practices for conducting suicide risk assessment with youth using eHealth (Figure 1).

#### 2.4 Data Abstraction

Data from the 12 included articles were abstracted using a standardized data charting template created for this study, based on the recommendations of Tricco et al.<sup>29</sup> and Levac, Colquhoun, and O'Brien.<sup>28</sup> The standardized data charting template collected information on the study's source of funding; design; sample (size, age, demographics); setting/location; data analyses; and relevant recommendations for virtual/remote suicide assessment with youth. Abstractions were completed in pairs of two by the team of research assistants. Each member of the pair independently reviewed their assigned articles, and the pair then met to come to consensus on the final abstraction. Abstractions were all then reviewed by the first and second authors. We did not assess data quality, as this is outside the parameters of scoping reviews.<sup>27</sup>

#### 2.5 Grey Literature

In the first phase of our project, we also included key websites (i.e., professional websites focused on school mental health, suicide prevention and/or youth mental health). Websites for inclusion were identified by the research team and the Centre for Suicide Prevention. Between May 28<sup>th</sup> and June 19<sup>th</sup>, 2020, we reviewed 17 websites for information relevant to virtual/remote suicide risk assessment with youth:

- https://www.apa.org/advocacy/suicide-prevention/
- https://www.canada.ca/en/public-health/services/publications/healthy-living/suicideprevention-framework.html
- https://www.csmh.uwo.ca
- https://www.cymh.ca/en/index.aspx
- https://www.integration.samhsa.gov/clinical-practice/suicide-prevention
- https://mhttcnetwork.org
- https://www.mentalhealthcommission.ca/English/what-we-do/suicide-prevention
- http://www.schoolmentalhealth.org
- https://smho-smso.ca
- http://www.sprc.org
- https://www.suicideinfo.ca
- https://suicideprevention.ca
- https://suicidepreventionresearch.ca
- http://www.togethertolive.ca/prevention-tools-and-resources
- http://teenmentalhealth.org/
- https://zerosuicide.edc.org
- https://suicidepreventionhub.org.au

Each website was reviewed by one research assistant, and relevant documents/information were saved to a shared Dropbox folder. A pair of research assistants (which did not include the research assistant that originally pulled documents from the website) then abstracted the information from these saved documents using the same procedure as for peer-reviewed articles. The standardized data charting template for websites included the title of the relevant page on the website and a summary of relevant recommendations. Information from relevant websites was then reviewed and summarized by the first and second authors.

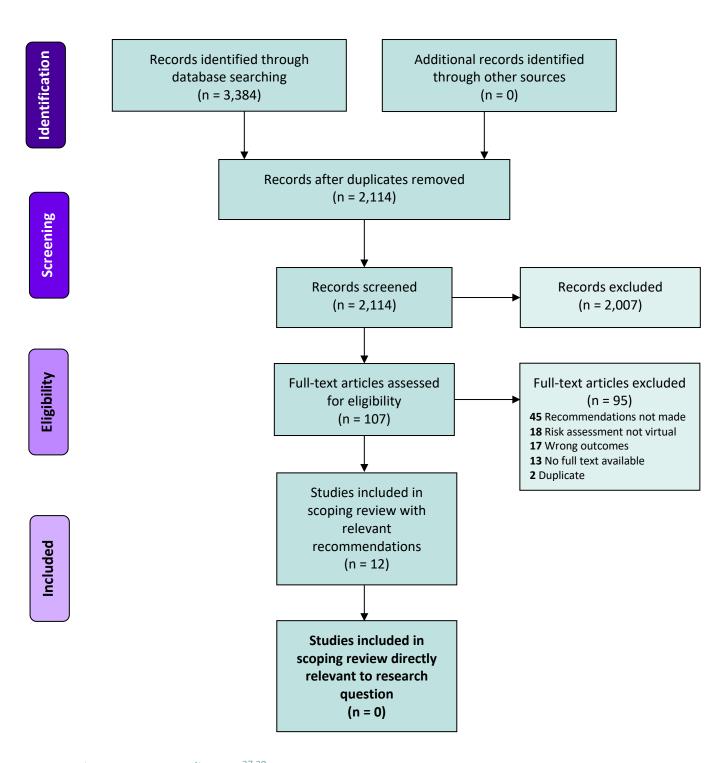


Figure 1. PRISMA diagram<sup>27,29</sup>

## 3. Findings to Date

#### 3.1 Peer-Reviewed Literature

3.1.1. Description of Included Articles. We did not find any articles that directly addressed our research question (i.e., that were focused on promising practices for conducting suicide risk assessment with youth via eHealth). However, we did locate 12 articles which – while not directly focused on our question – did provide recommendations we thought were relevant and could inform future research and practice on school-based suicide risk assessment with youth using eHealth (Table 1). Included articles used samples from the United States (n=5), Australia (n=3), the United Kingdom (n=2), and Indonesia (n=1) (Table 1). All articles were published between 2008 and 2020, with the majority (83.3%) published since 2015 (Figure 2). The most common study design was quantitative (Figure 3). For non-review articles, most samples were comprised of youth ages 12-25 (Table 1). We also included one qualitative article whose sample was comprised of eMental health professionals, <sup>30</sup> and one article that described risk assessment outcomes for an eMental health clinic for adults, as the recommendations were highly relevant to our study. <sup>31</sup> Sample size in included articles ranged from 9 to 9061 (Table 1).

While youth, in general, experience elevated risk of suicide,<sup>32</sup> youth at disproportionate risk are those that experience marginalization due to certain aspect(s) of their identity (e.g., Indigenous youth, newcomer and refugee youth, LGBTQ2S+ youth).<sup>33-35</sup> Thus, in summarizing study descriptions, we specifically explored if studies included consideration of racial group, gender, and/or LGBTQS2+ identity (Table 1). Of relevant studies (i.e., non-review articles, n=9), we found that 88.9% (n=8) reported on participant (cis)gender, 55.6% (n=5) reported on participant racial group, and 11.1% (n=1) reported on LGBTQ2S+ identity (by stating there were 0 transgender individuals in their sample<sup>36</sup>). Where (cis)gender and racial group were reported, samples were primarily female-identified (range, 55.6%-81.0%; median = 68.9%) and white (range, 67.0%-98.5%; median = 72.9%). Thus, relevant recommendations (see next section) should be interpreted with caution, as they primarily pertain to white, female-identified and likely heterosexual youth.

Table 1. Summary of Relevant Peer-Reviewed Articles (n=12)

Authors & year	Study design	Study location	Sample size	Sample age, range or mean (SD)	% white	% female	% LGBTQ2S+	Brief study description
Anderson et al., 2017 <sup>37</sup>	Review of lessons learned	Australia	-	12-18	-	-	-	Shares lessons learned in the development and evaluation of a fully automated internet-based cognitive behavioral therapy (iCBT) program for youth experiencing symptoms of OCD
Arjadi et al., 2018 <sup>38</sup>	Quantitative	Indonesia	313	24.5ª	-	81.0ª	-	Presents a randomized controlled trial of the Guided Act and Feel Indonesia (GAF-ID) program, an online behavioural activation intervention which includes lay support
Fairchild et al., 2020 <sup>39</sup>	Quantitative	United States	87	5-17	98.5	66.0	-	Evaluates the outcomes of children and youth who received telemental health services within a rural emergency department
Goodday et al., 2020 <sup>40</sup>	Review of lessons learned	United Kingdom	-	-	-	-	-	Reports on experiences using the True Colours remote mood monitoring system across a large number of users and settings
Haas et al., 2008 <sup>41</sup>	Mixed methods	United States	1162	Under- graduate students	-	71.8	-	Evaluates an interactive, Web-based approach to encourage youth at risk of suicide to seek help
King et al., 2015 <sup>42</sup>	Quantitative	United States	76	22.9 (5.0)	71.1ª	59.2ª	-	Evaluates the effectiveness of an online intervention (eBridge) for college students at risk of suicide
Navarro et al., 2020 <sup>30</sup>	Qualitative	Australia	9	27-67; mean (SD) age 42.6 (14.3)	-	55.6ª	-	Explores how eMental health professionals view youths' reasons for accessing text-based online counseling, and moderators of service delivery effectiveness
Nelson et al., 2011 <sup>43</sup>	Literature review	-	-	-	-	-	-	Reviews the telepsychology literature (using video to deliver evaluation and/or treatment); Presents telepsychology guidance for current practice environments
Nielssen et al., 2015 <sup>31</sup>	Quantitative	Australia	9061	18+	-	-	-	Reviews procedures used to manage risk and case summaries for adults who were urgently referred for crisis intervention while using a remote screening assessment/therapy clinic (MindSpot)

Radovic et al., 2018 <sup>36</sup>	Mixed methods	United States	96	14-26	67.0	75.0	0 trans- gender individuals	Evaluates the feasibility, acceptability and utility of a social media website (SOVA) designed to improve mental health literacy and decrease negative health beliefs about depression/anxiety, among youth with a history of depressive or anxiety symptoms
Sayal et al., 2019 <sup>44</sup>	Mixed methods	United Kingdom	22	16-30	95.5ª	77.3ª	-	Reviews the feasibility of a randomized controlled trial of a remotely delivered problem-solving cognitive behavior therapy for youth with repeat self-harm and depression (e-DASH)
Thomas et al., 2018 <sup>45</sup>	Quantitative	United States	494	1-19 (mean age 13.2°)	72.9ª	60.1ª	-	Evaluates a telepsychiatry program at a geographically dispersed pediatric emergency department

<sup>&</sup>lt;sup>a</sup>Hand calculated from information in the article

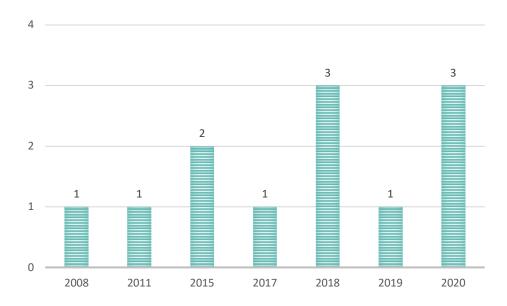


Figure 2. Number of included peer-reviewed articles, by study year

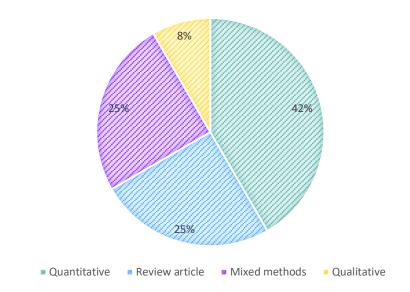


Figure 3. Study design of included peer-reviewed articles

- 3.1.2. Relevant Recommendations. To organize relevant recommendations extracted using the standardized data charting template, the first author inductively applied codes to recommendations using Dedoose (an online mixed-methods data analysis software). Codes were then reviewed and revised by the second author. From this coding, five categories of relevant recommendations emerged: 1) youth engagement; 2) consent procedures; 3) session logistics; 4) safety planning; and 5) internet privacy (Table 2). Several studies also specifically noted strengths and barriers of using virtual/remote methods for mental health service delivery, which were relevant to the objective of our review (Table 3).
- 3.1.2.1. Youth engagement. Two articles discussed recommendations relevant to youth engagement in eMental health service delivery, which also seemed potentially relevant for using eHealth for youth suicide risk assessment within school settings. 30,38 Both articles were original studies. One original study from Indonesia was conducted with youth whose mean age was 24.5,38 and the other from Australia was a qualitative study with service providers. The samples were primarily female (median=68.3%). In their article, Arjadi et al38 point out that there are important contextual factors around youth engagement to consider when working in the virtual/remote environment, for example ensuring that service delivery is accessible for individuals living in poverty, in rural areas and/or with restricted internet access (Table 2).
- 3.1.2.2. Consent procedures. Two articles discussed recommendations relevant to consent procedures in the virtual/remote environment. 43,44 One of these articles was an original study from the United Kingdom conducted with individuals ranging in age from 16-30 (95.5% white, 77.3% female), 44 and the other was a review article. 43 Recommendations included ensuring that the provider had the name and contact information for the primary caregiver (and, given the potential need to contact someone quickly, service providers may wish to have the names/contact information for several supportive adults prior to starting the session, in case an urgent suicide risk emerges; Table 2). It is also important that the youth/caregiver knows who they should contact in case of crisis, especially when the school-based provider is not available, and that the consent form describes the risks and benefits of eMental health (Table 2).
- *3.1.2.3. Session logistics.* Five articles discussed recommendations relevant to virtual/remote session logistics. <sup>31,36,38,41,43</sup> Four of these articles were original studies from the

United States, Indonesia and Australia, <sup>31,36,38,41</sup> and one was a review article. <sup>43</sup> Where information was reported, the original studies were conducted primarily with older, predominately female youth and/or adults, and, for the articles conducted in the United States and Australia, samples were primarily white. From their experience working with over 9000 adults in an eMental health setting in Australia, Nielssen et al. <sup>31</sup> conclude that (for adults), online suicide risk assessments should follow the same basic steps as in-person risk assessments, including specific protocols and procedures. However, given the nuances in the virtual/remote environment (e.g., non-verbal clues; how to communicate the safety plan to youth and caregivers), service providers should receive specific training on how to conduct suicide risk assessments via eHealth (Table 2). Providers should also have a back-up plan in case the youth is in crisis and internet and/or technology issues occur, and go over this plan at the beginning of the session (Table 2). Finally, it is important that providers understand relevant professional requirements for providing eMental health services to youth at risk for suicide.

3.1.2.4. Safety planning. Nine articles discussed recommendations relevant to virtual/remote safety planning. <sup>31,37-40,42-45</sup> Six of these articles were original studies from Australia, the United Kingdom, the United States and Indonesia, <sup>31,38,39,42,44,45</sup> and three were review articles. <sup>37,40,43</sup> Where information was reported, the original studies were conducted primarily with older, predominately female youth and/or adults, and, for the articles conducted in the United States, the United Kingdom and Australia, samples were primarily white (median=84.2%). A relevant recommendation emerging from this work is the potential use of screening data and personalized feedback to remotely monitor risk and increase youth engagement, respectively (Table 2). Specifically, since service providers are not interacting with students daily at school, these screening data may help providers monitor for risk in the remote environment. Related to this, Nelson and colleagues<sup>43</sup> suggest that more check-ins may be required when using an online format as compared to the in-person environment, especially for youth who are more isolated. Finally, if safe for the youth, it is important to inform caregivers if suicide risk issues arise, and provide clear guidelines to caregivers on how to manage risk and seek appropriate help (Table 2).

3.1.2.5. Internet privacy. Four articles discussed recommendations relevant to internet privacy when providing mental health services virtually/remotely. 38,41,43,45 Three of these articles were original studies from the United States and Indonesia, 38,41,45 and one was a review article that discussed internet privacy issues. 43 Where information was reported, original study samples were primarily comprised of older, predominately female youth, and samples from the United States were predominately white. Recommendations included using an encrypted email to send session invitations, and to ensure the virtual/remote session hosting platform is compliant with relevant health privacy laws (Table 2). Storage of youth information (e.g., email addresses) is also an important consideration (Table 2). Reviewing the telepsychology literature, Nelson and colleagues also recommend asking youth who else is in the room, and whether they are comfortable having those people there/whether those people's presence complies with health privacy laws (who is in the room should also be considered on the service provider side, to ensure that the assessment is conducted privately and confidentially).

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Table 2. Relevant recommendations for virtual/remote suicide risk assessment with youth from peer-reviewed articles, by theme

Theme	Relevant Recommendations
Youth engagement	<ul> <li>Ensure sessions are accessible for youth with restricted internet access (e.g., youth living in poverty, rural/remote youth)<sup>38</sup></li> <li>Consider providing youth with session transcripts to help them remember information and strategies to use in daily life, if aligned with privacy requirements<sup>30</sup></li> </ul>
Consent procedures	<ul> <li>Consent for service form can include the name and contact information for multiple adult contacts, in case one is not available<sup>44</sup></li> <li>Consent should detail who the youth/caregiver should contact in case of crisis, especially when school-based eMental health services are not available<sup>43</sup></li> <li>Consent for service form should also describe risks and benefits of eMental health<sup>43</sup></li> <li>Service providers should maintain communication with caregivers to ensure continuity of care, if safe for youth<sup>43</sup></li> </ul>
Session logistics	<ul> <li>Ask youth participants to provide contact information for themselves and one supportive adult at the beginning of each session in case you are disconnected and need to get support to them<sup>36</sup></li> <li>Service providers require training and clinical supervision to provide suicide assessment via eHealth<sup>31</sup></li> <li>Have a back-up plan in case there are internet or technology issues <i>before</i> the session starts, and ensure the youth understands this plan<sup>43</sup></li> <li>If immediate risk is identified through standard assessment, refer youth to crisis mental health services<sup>31,38</sup></li> <li>Understand relevant case law/professional requirements for providing eMental health services to youth at risk for suicide<sup>41</sup></li> </ul>
Safety planning	<ul> <li>Online risk assessments follow same basic steps as in-person risk assessments (e.g., completing a safety plan; having information for in-person resources and emergency services ready before session, in case needed)<sup>31</sup> <ul> <li>Like in-person assessments, specific suicide risk assessment protocols and procedures outlining steps and reporting requirements should be provided to all service providers<sup>31,44</sup></li> <li>Core professional principles and ethics remain critical in the eHealth environment<sup>43</sup></li> </ul> </li> <li>If risk is not immediate, develop a safety plan – send the safety plan to youth (and caregiver if appropriate), and include contact information for 24 hour resources<sup>31,39</sup> <ul> <li>If possible, continually monitor risk via weekly online assessments; if risk increases, contact the youth<sup>31</sup></li> </ul> </li> <li>Consider using ongoing screening data, and having youth provide data on an agreed upon schedule (e.g., daily, at agreed upon times, through weekly online assessments), <sup>31,38,40</sup> to remotely monitor risk         <ul> <li>Providing youth with ongoing, personalized feedback on suicide risk indicators and then giving them the option to receive online counselling can have a positive impact on engagement in professional mental health treatment<sup>37,42</sup> <ul> <li>More check-ins may be required than when youth are in school, depending on the level of isolation of the youth<sup>43</sup></li> <li>Inform caregivers if suicide risk issues arise, and provide clear guidelines to caregivers on how to manage risk and seek appropriate help<sup>37</sup></li> <li>Notify caregivers of the risk, recommended next steps, and a list of appropriate crisis services and support agencies<sup>37</sup></li> <li>Consider having a caregiver sit with the youth when conducting risk assessment, if safe and age-appropriate<sup>39,45</sup></li> </ul> </li> </ul></li></ul>

Internet privacy	<ul> <li>Send virtual session invitations via a secure and encrypted email<sup>45</sup></li> <li>Give each youth a unique, non-identifying username and password<sup>38,41</sup></li> <li>Store youth information (e.g., email addresses) in an encrypted computer system<sup>41</sup> and use encrypted point-to-point technologies when videoconferencing<sup>43</sup></li> <li>Ensure virtual session hosting platform is compliant with relevant health privacy law in your area (e.g., HIPAA)<sup>45</sup> <ul> <li>Determine who is in the room on both sides (other than the youth and service provider), and ensure that the people in the rooms meet privacy law requirements<sup>43</sup></li> </ul> </li> </ul>
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3.1.2.6. Strengths and barriers. Nine articles discussed specific strengths of eMental health care for youth that were also deemed relevant to the objective of our study, and nine articles discussed barriers or gaps (Table 3). Strengths of virtual/remote mental health service delivery include increasing youth choice for intervention setting and engaging students that may be hard to reach using traditional face-to-face methods, including rural and remote youth. However, specific barriers also exist, including potentially increased difficulty determining whether youth follow through with referrals to crisis services; issues with poor internet connectivity/access; financial costs for youth and families to obtain necessary equipment (e.g., camera with a laptop); and additional training required for service providers (Table 3).

Table 3. Strengths and gaps of eMental health care from the peer-reviewed literature, as relevant to virtual/remote suicide risk assessment with youth

Strengths	Barriers/0	3aps
Having eMental health ontions available can	May be more difficult to d	loto

- Having eMental health options available can increase participant choice for intervention<sup>40,42,44</sup>
  - eMental health can facilitate communication across family members and systems of care (e.g., teachers, case managers) when creating an intervention plan<sup>43</sup>
- May be able to reach students who don't seek help using traditional face-to-face formats<sup>30,41</sup> or who have had a previous negative in-person experience<sup>30</sup>
- May be especially beneficial to reach rural and remote youth<sup>30,38,39,45</sup>
- eMental health options are considered to be cost effective for both youth and providers<sup>38,43,45</sup>

- May be more difficult to determine if youth follow through with referrals to crisis services<sup>31</sup>
- Poor internet connectivity/access can create access issues<sup>30,38,44</sup>
- Financial costs for youth to access needed equipment (e.g., computer with camera)<sup>38,39</sup>
- Additional training for staff may be required<sup>42,43</sup>
- If service is provided over the telephone, difficult to assess non-verbal cues<sup>30</sup>
- Effect of eMental health services on youth/provider relationship unknown<sup>45</sup>
- Potential data security concerns, that may be heightened by youth's living situation (e.g., lack of privacy; violence)<sup>40,41,44</sup>

#### 3.2 Grey Literature (Websites)

Overall, there was much more specific and detailed information in the grey literature (i.e., documents from relevant websites) on using eMental health with youth, both generally and to conduct suicide risk assessments. In total, we pulled relevant recommendations from 23 grey literature sources. These sources were located through the American Psychological Association; Mental Health Commission of Canada; Mental Health Technology Transfer Center Networks; National Center for School Mental Health; National Association of School Psychologists; Ontario Centre of Excellence for Child & Youth Mental Health; School Mental Health Ontario; Suicide Prevention Resource Center; Together To Live; and ZEROSuicide Institute websites. Resources highlighted that during COVID-19, it is especially important to assess youth at risk of suicide on an ongoing and regular basis, given the stressful changes many youth are experiencing.<sup>46</sup> Specific recommendations from the grey literature fell into six primary categories:<sup>c</sup> 1) building rapport/establishing a therapeutic space; 2) helping youth prepare for virtual/remote sessions; 3) school mental health professional boundaries; 4) consent procedures; 5) session logistics; and 6) safety planning. These themes substantially overlap with and expand on themes found in the peer-reviewed literature (Appendix A). However, more specific detail was provided in the grey than peer-reviewed literature. A summary of recommendations within each category is provided below. Full information on relevant grey literature sources is provided in **Appendix B.** 

In addition to the number of specific recommendations, a second key difference between the grey and peer-reviewed literature was the former's focus on issues of equity and access, and how technology can reinforce inequalities.<sup>47</sup> A number of resources specifically detailed that it is imperative for providers to consider youth's ability to use different virtual/remote technologies, and ensure that care is accessible (e.g., considering internet connection, data or phone minutes restrictions). For example, in a webinar from the Mental Health Technology Transfer Network, presenters highlighted that each youth should be evaluated based on their individual, communal and national culture (e.g., how different cultures demonstrate pain/distress).<sup>48</sup> This webinar also highlighted that certain accents may become difficult to

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<sup>&</sup>lt;sup>c</sup> The first and second author reviewed all relevant website documents identified through the standardized data charting process, and summarized key content (Appendix B). The first author then created themes from these summaries, which were reviewed for accuracy by the second author.

understand over technology, and it is key that providers recognize when someone may have difficulties understanding them/when they may have difficulties understanding someone else. In terms of language diversity, efforts should be made to provide services in the language the youth is most comfortable with. Another document discussed how remote methods may be especially valuable for LGBTQ2S+ youth in rural settings. Gender is also important to consider, as youth who identify as female may be more likely to use online services. Efforts should also be made to increase accessibility for any resources provided (e.g., closed captions, sign language, photos, etc.). Verall, it is critical for school mental health professionals to explore intersections of culture, sociodemographics, geography, and technology when providing eMental health services – including suicide risk assessment – with youth. S1,p452

Table 4. Relevant recommendations for virtual/remote suicide risk assessment with youth from grey literature, by theme

Theme	Relevant Recommendations
Building rapport/establishing a therapeutic space	<ul> <li>Make sure youth can see and hear you clearly, \$2,58,69 and that your screen is big enough to see the youth's face<sup>69</sup> <ul> <li>Both auditory and visual information are key to providing good virtual care, \$69 so it is ideal to have both sources of information if possible given the youth context</li> <li>It can be harder to pick-up on non-verbal cues in the virtual environment, so pay special attention to facial cues. \$69 Also pay attention to youth's tone of voice, use of negative language and atypical speech patterns. \$1</li> </ul> </li> <li>Stay on screen the entire time and maintain eye contact. \$4,65 Make sure youth can clearly see your face throughout the session. \$2,58</li> <li>Discuss how to increase youth privacy (e.g., picking a time of day for the session that is quieter in the house, having a code word if someone is nearby, using chat if they can't speak privately, wearing headphones, password-protected sessions)<sup>52,62,65,69,73</sup></li> <li>Choose a mode of technology for sessions that meets youth needs/preferences<sup>54,62,64,65,74</sup></li> <li>Equity and access issues are critical to consider. \$7,69 This can include using the phone/texting when internet is not an option, \$69 and checking with youth how many phone minutes they have to talk. \$61</li> </ul> <li>Set-up your room to promote youth comfort (e.g., remove personal items, minimize distractions, use a headset so your voice is clear, ensure you are well-lit, set-up your computer so you can maintain good eye contact). \$54,58,67,69 Let youth know they can be informal and use a background or emojis if that makes them more comfortable. \$8</li> <li>Discuss what virtual/remote sessions will look like (e.g., security concerns, whether the session will be recorded). \$58,67 Reassure youth at start of the session that you are in a private space. \$52,66,69 Let the youth see your whole office. \$8,69</li> <li>Keep youth engaged (e.g., use screen sharing, pl</li>
Helping youth prepare for virtual/remote sessions	<ul> <li>Help youth find a quiet, private place for your sessions where they will have minimal distractions. <sup>53,61</sup> Involve caregivers to make sure the space is private for the duration of your session. <sup>65</sup></li> <li>Encourage youth to test out technology before using <sup>73</sup></li> <li>Remind youth to make sure their phone (or other device, such as a laptop) is fully charged before the session <sup>61,65</sup></li> <li>Suggest turning off smart devices to increase privacy (e.g., Alexa, Google Home) <sup>65</sup></li> <li>Encourage youth to write down what they want to talk about before session, and to bring a paper and pen to the session to take notes <sup>53,61</sup></li> </ul>
School mental health professional boundaries	<ul> <li>Make sure youth and caregivers know when you are and aren't available, and who to contact when you are not available<sup>52,57,62,64,69,70</sup></li> <li>Arrange coverage periods if possible, and let youth know when you will be away<sup>70</sup></li> <li>Connect with youth and caregivers using institutional (not personal) devices<sup>57</sup></li> <li>Have a clear schedule for when you meet with youth<sup>52</sup></li> </ul>

	Obtain caregiver consent/youth assent to conduct session remotely <sup>55,56,62,67,69</sup>
Consent procedures	<ul> <li>Consent topics include telling the youth you will not record the session without permission; whether you will use a webcam during the session (if relevant); using a secure internet connection; having a back-up plan (what to do if there are technology issues); having the name and contact information for at least one emergency contact; and knowing the closest emergency room to where the youth is<sup>56</sup></li> <li>The consent form can also detail:<sup>62</sup> <ul> <li>A description of the eMental health service</li> <li>Any required technical considerations</li> <li>What you can and can't do (i.e., eMental health limits)</li> <li>Expectations of service provider, youth and caregiver</li> <li>Emergency contacts and multiple communication options</li> <li>Consent for youth to participate in eMental health</li> </ul> </li> </ul>
Session logistics	<ul> <li>Make sure you are competent with whatever virtual/remote platform you plan to use and in providing risk assessment virtually/remotely. 55,67,69 Service providers need training and supervision. 46 Have a plan for receiving remote supervision as needed. 2</li> <li>Check your technology right before the session (e.g., for software updates) 67</li> <li>Ensure technology meets relevant privacy requirements. 73 Understand relevant local laws and regulations around providing eMental health services. 68</li> <li>Plan a practice session with youth, if possible, to make sure you are both comfortable 73</li> <li>Make sure you can access your school division's suicide risk assessment protocol electronically 62</li> <li>Completing a full suicide risk assessment virtually may be difficult, and so it is okay for service providers to focus on the most critical information needed to assess risk 70</li> <li>Verify the youth's identity at the start of the session (if can't see them/haven't met them before) 67</li> <li>Confirm consent/assent 67</li> <li>Review privacy 67,699</li> <li>Check if the youth is safe to talk 75</li> <li>Take steps to mitigate any potential privacy issues. 57 For example, having the youth play white noise from an app. 70 Discuss what to do if privacy is interrupted, like if a sibling walks in (e.g., use of code word, hitting mute, switching to chat). 52,73</li> <li>Review safety precautions 67</li> <li>Confirm the youth's physical location at start of the session 54,61,62,67,68,70,74</li> <li>Have a back-up plan for what you will do if technology difficulties occur. Know how you can reach youth if you get disconnected 54,61,62,67,69,79,73 and let them know how they can reach you. 67</li> <li>Have a list of urgent and non-urgent nearby resources ready. 67 Know the 24/7 emergency services in your area and who you can/need to contact if the youth is at risk of suicide. 62</li> <li>Make sure you have up-to-date and accurate emergency con</li></ul>

	<ul> <li>Monitor how youth is feeling (e.g., through messaging) throughout the session and slow things down if they feel unsafe<sup>76</sup></li> <li>Have a plan for how you will stay connected to the youth if you need to contact emergency services (especially if you are connecting with them by phone).<sup>70,74</sup> Stay connected with youth while you call 911 and until emergency services arrive.<sup>61,69</sup> Maintain constant verbal (and if possible visual) contact until resources arrive.<sup>62</sup></li> <li>Documentation is key – make sure to document when assessment started and ended, what platform you used/any technological difficulties, specific topics covered, any other issues that occurred <sup>62,69,73,74</sup></li> </ul>
	• Close the session by asking what can be improved and making a plan for your next meeting. <sup>65,74</sup> If youth miss the session, check in with them to see what is going on and how you can adjust to make it easier/more comfortable for them to attend. <sup>69</sup>
Safety planning	<ul> <li>Overall, safety planning is the same as in person.<sup>68</sup> Work together to build a safety plan (e.g., by sharing screen),<sup>73</sup> and find a way to get the plan to them (e.g., email).<sup>46,70,73,74</sup> <ul> <li>Ask about increased access to lethal means (e.g., medication)<sup>70</sup></li> <li>Ask about additional COVID-19 related risk factors (e.g., social isolation, family financial stress)<sup>70</sup></li> </ul> </li> <li>Consider using virtual safety planning tools, like the My3 app<sup>62</sup></li> <li>Check-ins may need to happen more often.<sup>46,70</sup> Consider using a short screener during check-ins to remotely monitor risk.<sup>66,70</sup> Youth could also use an app to rate their mood/suicidal ideation daily, so they know when they might need urgent care.<sup>77</sup> Can also use check-ins to review and update safety plans.<sup>58</sup></li> <li>Figure out a way for the youth to get a copy of their safety plan (e.g., text it to them, have them take a screenshot)<sup>46,70,73,74</sup> <ul> <li>Let the primary caregiver know you have developed a safety plan, and involve them if safe for the youth<sup>62,69</sup></li> <li>Ask the youth's permission to talk with individuals in the home who can help monitor and provide support for them inperson<sup>74</sup> <ul> <li>Develop a plan with caregivers on how they can access support for themselves<sup>57</sup></li> </ul> </li> <li>Identify coping strategies on the safety plan that can be done during COVID-19 (e.g., virtual activities, virtual connection with friends)<sup>70</sup></li> <li>Encourage the youth to keep a daily schedule and make plans for each day<sup>70</sup></li> </ul> </li></ul>

### 4. Summary To Date

In Phase One of our systematic scoping review, we located no peer-reviewed articles that specifically described recommendations for conducting suicide risk assessments (school-based or otherwise) with youth via eHealth. We did, however, locate a number of grey literature documents from reputable websites that gave specific recommendations, and many of these recommendations overlap and expand on the limited information available in the peer-reviewed literature (**Appendix A**). Thus, while more research needs to be conducted on best practices for conducting suicide risk assessment with youth via eHealth, as school mental health professionals and decision makers are in need of immediate guidance in the face of COVID-19, we feel the relevant recommendations detailed by peer-reviewed and grey literature sources represent a set of six promising practices for current implementation.

This lack of research reflects the state of the e-suicide prevention literature more broadly. Specifically, in their systematic review of mobile/web-based suicide prevention literature published between 2000 and 2015, Perry and colleagues found only one study that met inclusion criteria (youth aged 12-25; included suicidality as a primary outcome; any study design; published in English in a peer-reviewed journal). Thus, our review further illuminates this critical gap in the literature. Given the increased access that e-suicide interventions (including risk assessment) offer youth in the context of COVID-19 – and post-COVID-19 for rural, remote and hard-to-reach youth – it is critical that future research addresses this gap. Recommendations from grey literature sources provide rich information on which to base this research.

While we did locate a number of studies that examined eMental health interventions generally for youth, almost none of them described their risk assessment procedures for participants experiencing suicidal ideation, and thus these articles were excluded from this review. As such, we recommend that future eMental health intervention research be explicit about describing procedures for how they assessed and managed youth suicide risk virtually/remotely. Finally, the limited peer-reviewed research that did provide relevant recommendations for our review was primarily conducted with older, female-identified, white, presumably heterosexual youth. Given that groups at disproportionate risk for suicide include

male-identified youth, Indigenous youth, immigrant youth, newcomer and refugee youth, and LGBTQ2S+ youth,<sup>35,79</sup> this represents a further gap in the literature. In addition to including diverse youth, it is also critical that future research on this topic centers youth voice and experience.<sup>36</sup>

Research with adults suggests that suicide risk assessment can be done successfully via eHealth. Reviewing the case records of over 9000 people who accessed the MindSpot Clinic in Australia (an eMental health service), Nielssen et al<sup>31</sup> report that approximately one in four reported thinking about or intending to die by suicide. These clients all received telephone follow-up, where standard risk assessment planning was conducted. Of the over 2300 clients who were contacted by telephone, only 51 (0.6% of the full sample) were referred to urgent crisis care. They conclude that "the procedures for identifying and managing those [urgent] patients were satisfactory, and in every case, either emergency services or local mental health services were able to take over the patient's care. [This study] shows that the uncertainty associated with taking responsibility for the remote treatment of patients who disclose active suicidal plans is not a major impediment to providing direct access online treatment for severe forms of anxiety and depression."<sup>31,p6</sup> However, these findings need to be replicated with youth.

#### 4.1 Next Steps

In Phase One of our scoping review (May 22-June 22, 2020), we prioritized peer-reviewed literature and key grey literature websites. In Phase Two, we will broaden our search, and also include consultant review. Specifically, given the emergent nature of guidance on virtual/remote suicide risk assessment with youth demonstrated by our findings in Phase One, in Phase Two we will search additional grey literature sources, including Dissertation Abstracts International, professional colleges/associations, websites of Canadian school authorities that have a large rural/remote contingent, urban distress centre websites, websites for Indigenous departments that support remote communities, and national, provincial and state youth suicide prevention plans. We will also 1) review the reference lists of the review articles located in Phase One of our search for any additional articles that meet inclusion criteria and 2) hand search important journals in the field if not picked up by database searches: Clinical eHealth; Crisis;

Suicide and Life-Threatening Behaviors; Archives of Suicide Research; School Mental Health; Canadian Journal of Psychiatry; Journal of the Canadian Academy of Child and Adolescent Psychiatry; and Journal of the American Academy of Child and Adolescent Psychiatry). Finally, once we have completed these additional review steps, we will send our updated knowledge synthesis to key school mental health stakeholders provincially and nationally, in order to gather and incorporate their practice wisdom (e.g., on building rapport in the virtual/remote environment). We will also have our updated draft reviewed by the Centre for Suicide Prevention and incorporate their feedback. Through these additional steps, we hope to enhance the relevant recommendations described in this document. Based on this revised set of relevant recommendations, we will present a cross-walk of the in-person School-Based Suicidal Ideation Response Protocol with recommendations for when this protocol is implemented in the virtual/remote environment, and a final set of integrated recommendations across peer-reviewed literature, grey literature and consultant review.

#### 4.2 Conclusion

From Phase One of our search, we conclude that promising practices for conducting suicide risk assessment with youth via eHealth in school and community settings represents a critical research gap. Future research with diverse youth is required to address this gap. However, for knowledge users and decision makers searching for immediate guidance, a number of specific recommendations exist on reputable school mental health/suicide prevention websites, and these recommendations represent the most promising practices for suicide risk assessment with youth via eHealth until additional research is available.

#### 5. References

\*bolded text indicates the peer-reviewed article/grey literature source provides relevant recommendations

- Navaneelan T. Suicide rates: An overview. Statistics Canada Catalogue no. 82-624-X. Ottawa, ON: Statistics Canada; 2017. Available at <a href="https://www150.statcan.gc.ca/n1/pub/82-624-x/2012001/article/11696-eng.htm">https://www150.statcan.gc.ca/n1/pub/82-624-x/2012001/article/11696-eng.htm</a>. Accessed July 2, 2019.
- 2. Robinson J, Cox G, Malone A, et al. A systematic review of school-based interventions aimed at preventing, treating, and responding to suicide-related behavior in young people. *Crisis*. 2013;34(3):164-182.
- 3. Bennett K, Rhodes AE, Duda S, et al. A youth suicide prevention plan for Canada: A systematic review of reviews. *Can J Psychiatry.* 2015;60(6):245-257.
- 4. Xie X, Xue Q, Zhou Y, et al. Mental health status among children in home confinement during the coronavirus disease 2019 outbreak in Hubei Province, China [published online ahead of print April 24, 2020]. *JAMA Pediatr.* doi: 10.1001/jamapediatrics.2020.1619
- 5. Liang L, Hui R, Cao R, et al. The effect of COVID-19 on youth mental health [published online ahead of print April 21, 2020]. *Psychiatr Q.* doi: 10.1007/s11126-020-09744-3
- 6. De Silva S, Parker A, Purcell R, et al. Mapping the evidence of prevention and intervention studies for suicidal and self-harming behaviors in young people. *Crisis*. 2013;34(4):223-232
- 7. Gould MS, Marrocco FA, Hoagwood K, et al. Service use by at-risk youth after school-based suicide screening. Journal of the American Academy of Child & Adolescent Psychiatry. 2009;48(12):1193-1201.
- 8. Steele MM, Doey T. Suicidal behaviour in children and adolescents. Part 2: Treatment and prevention. *Can J Psychiatry*. 2007;52(6):35S-45S.
- 9. Freedenthal S, Breslin L. High school teachers' experiences with suicidal students: A descriptive study. *J Loss Trauma*. 2010:15(2):83-92.
- 10. Reis C, Cornell D. An evaluation of suicide gatekeeper training for school counselors and teachers. *Professional School Counseling*. 2008;11(6):386-394.
- 11. Hatton V, Heath MA, Gibb GS, et al. Secondary teachers' perceptions of their role in suicide prevention and intervention. *School Ment Health*. 2017;9(1):97-116.
- 12. Nadeem, E., Kataoka, S. H., Chang, V. Y., Vona, P., Wong, M., & Stein, B. D. The role of teachers in school-based suicide prevention: A qualitative study of school staff perspectives. *School Ment Health*. 2011;3(4):209–221.
- 13. Reinke WM, Stormont M, Herman KC, Puri R, Goel N. Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *Sch Psychol Q.* 2011;26(1):1-13.
- 14. Whitney SD, Renner LM, Pate CM, Jacobs KA. Principals' perceptions of benefits and barriers to school-based suicide prevention programs. *Child Youth Serv Rev.* 2011;33(6):869-877.
- 15. Ross V, Kolves K, De Leo D. Teachers' perspectives on preventing suicide in children and adolescents in schools: A qualitative study. *Archives of Suicide Research*. 2017;21(3):519-530.
- 16. Alberta Centre for Injury Control & Research [ACICR]. Brief report on suicide prevention in the school setting. Available at <a href="https://injurypreventioncentre.ca/downloads/research/Suicide Prevention In School Settings2012 FINAL.pdf">https://injurypreventioncentre.ca/downloads/research/Suicide Prevention In School Settings2012 FINAL.pdf</a>. Accessed May 4, 2020.
- 17. Granello DH. The process of suicide risk assessment: Twelve core principles. J Couns Dev. 2010:88:363-370.
- 18. Lieberman R, Poland S, Cassel R. Best practices in suicide intervention. In: Thomas A, Grimes J, eds. *Best practices in school psychology IV.* Vols. 1-2. Bethesda, MD: National Association of School Psychologists; 2002.
- 19. Substance Abuse and Mental Health Services Administration [SAMHSA]. *Preventing suicide: A toolkit for high schools*. HHS Publication No. SMA-12-4669. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration; 2012.
- 20. Becker-Blease KA, Turner HA, Finkelhor D. Disasters, victimization, and children's mental health. *Child Dev.* 2010;81(4):1040-1052.
- 21. Overstreet S, Salloum A, Burch B, West J. Challenges associated with childhood exposure to severe natural disasters: Research review and clinical implications. *J Child Adolesc Trauma*. 2011;4:52-68.
- 22. Goldmann E, Galea S. Mental health consequences of disasters. Annu Rev Public Health. 2014;35:169-183.
- 23. Arksey H, O'Malley L. Scoping studies: Towards a methodological framework. *Int J Soc Res Methodol.* 2005;8(1):19-32.
- 24. Peters MD, Godfrey CM, Khalil H, et al. Guidance for conducting systematic scoping reviews. *Int J Evid Based Healthc.* 2015;13(3):141-146.

- 25. Anderson S, Allen P, Peckham S, Goodwin N. Asking the right questions: Scoping studies in the commissioning of research on the organization and delivery of health services. *Health Res Policy Syst.* 2008;6:7.
- 26. Levac D, Colquhoun H, O'Brien KK. Scoping studies: Advancing the methodology. Implementation Science. 2010;69:5.
- 27. Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Ann Intern Med.* 2018;169:467-473.
- 28. Jain U, Willis D. Telepsychiatry: Acute care in the suicidal adolescent utility of off-site consultation and outcome. *Eur Psychiatry.* 2018;48S:S223-S224.
- 29. Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *Preferred Reporting Items for Systematic*Reviews and *Meta-Analyses*: The PRISMA statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097
- 30. \*Navarro P, Sheffield J, Edirippulige S, Bambling M. Exploring mental health professionals' perspectives of text-based online counselling effectiveness with young people: Mixed methods pilot study. *JMIR Ment Health*. 2020;7(1):e15564.
- 31. \*Nielssen O, Dear BF, Staples LG, et al. Procedures for risk management and a review of crisis referrals from the MindSpot Clinic, a national service for the remote assessment and treatment of anxiety and depression. *BMC Psychiatry*. 2015;15:304.
- 32. Miller AB, Prinstein. Adolescent suicide as a failure of acute stress-response systems. *Annu Rev Clin Psychol.* 2019;15:425-50.
- 33. Cha CB, Franz PJ, Guzman EM, et al. Annual research review: Suicide among youth Epidemiology, (potential) etiology, and treatment. *J Child Psychol Psychiatry*;59(4):460-482.
- 34. Goldston DB, Molock SD, Whitbeck LB, et al. Cultural considerations in adolescent suicide prevention and psychosocial treatment. *Am Psychol.* 2008;63(1):14-31.
- 35. Government of Alberta [GOA]. *Building strength, inspiring hope: A provincial action plan for youth suicide prevention 2019-2024*. Edmonton, AB: Government of Alberta; 2019. Available at <a href="https://open.alberta.ca/publications/9781460140987">https://open.alberta.ca/publications/9781460140987</a>. Accessed on July 2, 2019.
- 36. \*Radovic A, Gmelin T, Hua J. Supporting Our Valued Adolescents (SOVA), a social media website for adolescents with depression and/or anxiety: Technological feasibility, usability, and acceptability study. *JMIR Ment Health*. 2018;5(1):e17.
- 37. \*Anderson RA, Rees CS, Finlay-Jones AL. Internet cognitive-behavioural therapy for young people with obsessive-compulsive disorder: Lessons learned. *J Obsessive Compuls Relat Disord*. 2017;15:7-12.
- 38. \*Arjadi R, Nauta MH, Scholte WF et al. Internet-based behavioural activation with lay counsellor support versus online minimal psychoeducation without support for treatment of depression: A randomised controlled trial in Indonesia. *Lancet Psychiatry*. 2018;5(9):707-716.
- 39. \*Fairchild RM, Ferng-Kuo S, Rahmouni H, Hardesty D. Telehealth increases access to care for children dealing with suicidality, depression and anxiety in rural emergency departments [published online February 3, 2020]. *Telemed J E Health*. 202. doi:10.1089/tmj.2019.0253
- 40. \*Goodday SM, Atkinson L, Goodwin G, et al. The True Colours remote symptom monitoring system: A decade of evolution. *J Med Internet Res.* 2020;22(1):e15188.
- 41. \*Haas A, Koestner B, Rosenberg J, et al. An interactive web-based method of outreach to college students at risk for suicide. *J Am Coll Health*. 2008;57(1):15-22.
- 42. \*King CA, Eisenberg D, Zheng K, et al. Online suicide risk screening and intervention with college students: A pilot randomized controlled trial. *J Consult Clin Psychol.* 2015;83(3):630-636.
- 43. \*Nelson E, Bui TN, Velasquez SE. Telepsychology: Research and practice overview. *Child Adolesc Psychiatric Clin N Am.* 2011;20:67-79.
- 44. \*Sayal K, Roe J, Ball H, et al. Feasibility of a randomised controlled trial of remotely delivered problem-solving cognitive behavior therapy versus usual care for young people with depression and repeat self-harm: Lessons learnt (e-DASH). *BMC Psychiatry*. 2019;19:42.
- 45. \*Thomas JF, Novins DK, Hosokawa PW. The use of telepsychiatry to provide cost-efficient care during pediatric mental health emergencies. *Psychiatr Serv.* 2018;69:2.
- 46. \*ZEROSuicide Institute. Zero suicide implementation during COVID-19 response. Available at <a href="http://zerosuicide.edc.org/sites/default/files/Zero%20Suicide%20Implementation%20During%20the%20COVID-19%20Response.pdf">http://zerosuicide.edc.org/sites/default/files/Zero%20Suicide%20Implementation%20During%20the%20COVID-19%20Response.pdf</a>. Accessed June 19, 2020.
- 47. Mental Health Commission of Canada and Hatcher S. *App-on-tap: using technology in the prevention of suicide.* 2014. Available at https://www.mentalhealthcommission.ca/English/media/3410. Accessed May 27, 2020.

- 48. Evans M. Providing culturally relevant telehealth services during a pandemic. Mental Health Technology Transfer Center Network National Hispanic and Latino; 2020. Available at <a href="https://www.mentalhealthcommission.ca/English/media/3410">https://www.mentalhealthcommission.ca/English/media/3410</a>. Accessed June 11, 2020.
- 49. Stapel CJ. No longer alone: A resource manual for rural sexual minority youth and the adults who serve them. Available at http://www.lgbtqi2stoolkit.net/pdf/No-Longer-Alone.pdf. Accessed June 4, 2020.
- 50. Ontario Centre of Excellence for Child & Youth Mental Health and Children's Mental Health Ontario. *Evaluating and improving e-mental health services: A guiding framework for evaluating e-mental health services.* Available at <a href="https://www.cymh.ca/en/projects/resources/covid-19/covid-19">https://www.cymh.ca/en/projects/resources/covid-19/covid-19</a> evaluating and improving e-mental health services.pdf. Accessed June 1, 2020.
- 51. Hilty DM, Ferrer DC, Parish MB, Johnston B, Callahan EJ, Yellowlees PM. The effectiveness of telemental health: A 2013 review. *Telemed J E Health*. 2013;19(6):444-454.
- 52. \*Alliance for Inclusion & Prevention. Telehealth guidelines for school mental health professionals: Strategies for engaging students and building resilience. Available at <a href="http://www.schoolmentalhealth.org/media/SOM/Microsites/NCSMH/Documents/COVID-19/Telehealth-for-Mental-Health-DRAFT-7.pdf">http://www.schoolmentalhealth.org/media/SOM/Microsites/NCSMH/Documents/COVID-19/Telehealth-for-Mental-Health-DRAFT-7.pdf</a>. Accessed June 19, 2020.
- 53. \*American Psychiatric Association. How to prepare for a video appointment with your mental health clinician.

  Available at <a href="https://smiadviser.org/wp-content/uploads/2020/04/How-to-Prepare-for-a-Video-Appointment.pdf">https://smiadviser.org/wp-content/uploads/2020/04/How-to-Prepare-for-a-Video-Appointment.pdf</a>.

  Accessed June 19, 2020.
- 54. \*American Psychological Association. Office and telepsychology checklist for telepsychological services. Available at <a href="https://www.apa.org/practice/programs/dmhi/research-information/telepsychological-services-checklist">https://www.apa.org/practice/programs/dmhi/research-information/telepsychological-services-checklist</a>. Accessed June 19, 2020.
- 55. \*Abrams Z. Ethical guidance for the COVID-19 era. 2020 .Available at <a href="https://www.apa.org/monitor/2020/06/ce-corner-ethical-guidance">https://www.apa.org/monitor/2020/06/ce-corner-ethical-guidance</a>. Accessed June 19, 2020.
- 56. \*American Psychological Association. *Informed consent checklist for telepsychological services*. Available at <a href="https://www.apa.org/practice/programs/dmhi/research-information/informed-consent-checklist">https://www.apa.org/practice/programs/dmhi/research-information/informed-consent-checklist</a>. Accessed June 19, 2020.
- 57. \*American School Counselor Association. *Planning for virtual/distance school counselling during an emergency shutdown*. Available at <a href="https://www.schoolcounselor.org/asca/media/asca/home/EmergencyShutdown.pdf">https://www.schoolcounselor.org/asca/media/asca/home/EmergencyShutdown.pdf</a>. Accessed June 19, 2020.
- 58. \*van Dyk IS, Kroll JL, Martinez RG, Emerson ND, Bursch B. *COVID-19 tips: Building rapport with youth via telehealth.* 2020. Available at <a href="https://www.williamjames.edu/community/resource-hub/upload/TelehealthTipSheet-COVIDChildVersionFINAL.pdf">https://www.williamjames.edu/community/resource-hub/upload/TelehealthTipSheet-COVIDChildVersionFINAL.pdf</a>. Accessed June 19, 2020.
- 59. \*Lowenstein L. Creative interventions for online therapy with children: Techniques to build rapport. Available at <a href="http://www.lianalowenstein.com/artcileProfTeleplayLowenstein.pdf">http://www.lianalowenstein.com/artcileProfTeleplayLowenstein.pdf</a>. Accessed June 19, 2020.
- McGrath P, Wozney L, Rathore SS, Notarianni M, Schellenberg M. Toolkit for e-Mental health implementation.
   Ottawa, ON: Mental Health Commission of Canada; 2018. Available at
   <a href="https://www.mentalhealthcommission.ca/English/media/4137">https://www.mentalhealthcommission.ca/English/media/4137</a>. Accessed June 19, 2020.
- 61. \*Mental Health Technology Transfer Center Network, Northeast and Caribbean (HHS Region 2). Engaging with clients over the telephone and using texts. Available at <a href="https://mhttcnetwork.org/sites/default/files/2020-05/Engaging%20with%20Clients%20Over%20the%20Telephone%20and%20Using%20Texts\_FINALpdf.pdf">https://mhttcnetwork.org/sites/default/files/2020-05/Engaging%20with%20Clients%20Over%20the%20Telephone%20and%20Using%20Texts\_FINALpdf.pdf</a>. Accessed June 19, 2020.
- 62. \*National Association of School Psychologists. Comprehensive suicide prevention in a time of distance learning (handout). 2020. Available from <a href="https://www.nasponline.org/resources-and-publications/resources-and-publications/resources-and-publications/resources-and-publications/resources-and-publications/resources-and-podcasts/covid-19-resource-center/crisis-and-mental-health-resources/comprehensive-school-suicide-prevention-in-a-time-of-distance-learning. Accessed June 19, 2020.
- 63. National Association of School Psychologists. Considerations for delivery of school psychological telehealth services. 2017. Available at <a href="https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwinytXBqozqAhWLsJ4KHR74C">https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwinytXBqozqAhWLsJ4KHR74C</a> GMQFjAAegQIBRAB&url=https%3A%2F%2Fwww.nasponline.org%2Fx39099.xml&usg=AOvVaw1w9K8V5B8lCx8kggc ROGxq. Accessed June 19, 2020.
- 64. \*National Association of School Psychologists. *Virtual service delivery in response to COVID-19 disruptions*. Available at <a href="https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/health-crisis-resources/virtual-service-delivery-in-response-to-covid-19-disruptions">https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/health-crisis-resources/virtual-service-delivery-in-response-to-covid-19-disruptions</a>. Accessed June 19, 2020.

- 65. \*National Center for School Mental Health. *Telemental health 101 webinar*. Available at <a href="https://www.youtube.com/watch?v=3A74|XLTABw">https://www.youtube.com/watch?v=3A74|XLTABw</a>. Accessed June 16, 2020.
- 66. \*National Institute of Mental Health. *COVID-19: Youth suicide risk screening pathway*. Available at <a href="https://www.nimh.nih.gov/research/research-conducted-at-nimh/asq-toolkit-materials/inpatient/pdfs/covid-19\_youth\_suicide\_risk\_screening\_pathway\_160183.pdf">https://www.nimh.nih.gov/research/research-conducted-at-nimh/asq-toolkit-materials/inpatient/pdfs/covid-19\_youth\_suicide\_risk\_screening\_pathway\_160183.pdf</a>. Accessed June 19, 2020.
- 67. \*Alvord, Baker & Associates, LLC. *TeleMental health via video conferencing checklist*. Available at <a href="https://www.nationalregister.org/wp-content/uploads/2020/03/for-3-18-20-post-Alvord-Telehealth-Checklist.pdf">https://www.nationalregister.org/wp-content/uploads/2020/03/for-3-18-20-post-Alvord-Telehealth-Checklist.pdf</a>. Accessed June 19, 2020.
- 68. \*Telligen Health Information Technology Regional Extension Center and Great Plains Telehealth Resource & Assistance Center. *Telehealth start-up and resource guide*. Version 1.1. 2014. Available at <a href="https://www.ruralcenter.org/resource-library/telehealth-start-up-and-resource-guide">https://www.ruralcenter.org/resource-library/telehealth-start-up-and-resource-guide</a>. Accessed on June 19, 2020.
- 69. \*Ontario Centre of Excellence for Child & Youth Mental Health and School Mental Health Ontario. *Virtual care*101 webinar: Questions and answers. Available at <a href="https://www.cymh.ca/en/projects/resources/covid-19/covid-19/virtual\_care\_webinar\_QandA\_wcag.pdf">https://www.cymh.ca/en/projects/resources/covid-19/covid-19/virtual\_care\_webinar\_QandA\_wcag.pdf</a>. Accessed June 19, 2020.
- 70. \*Suicide Prevention Resource Center. *Treating suicidal patients during COVID-19: Best practices and telehealth.* 2020. Available at <a href="https://www.sprc.org/events-trainings/treating-suicidal-patients-during-covid-19-best-practices-telehealth">https://www.sprc.org/events-trainings/treating-suicidal-patients-during-covid-19-best-practices-telehealth</a>. Accessed April 14, 2020.
- 71. Mental Health Technology Transfer Center Network Coordinating Office. *Clinical innovations in telehealth: Telehealth and suicidal care.* 2020. Available at <a href="https://www.youtube.com/watch?v=vwmSC6BRc4k&feature=youtu.be">https://www.youtube.com/watch?v=vwmSC6BRc4k&feature=youtu.be</a>. Accessed May 19, 2020.
- 72. School-Based Health Alliance and the National Center for School Mental Health. Suicide prevention, intervention & postvention during COVID-19: What school-based staff need to know. 2020. Available at <a href="https://www.youtube.com/watch?v=0Y8ih8i2s">https://www.youtube.com/watch?v=0Y8ih8i2s</a> A. Accessed May 15, 2020.
- 73. \*ZEROSuicide Institute. *Telehealth and suicide care during the COVID-19 pandemic*. Available at <a href="http://zerosuicide.edc.org/sites/default/files/Telehealth%20and%20Suicide%20Care%20During%20the%20COVID-19%20Pandemic.pdf">http://zerosuicide.edc.org/sites/default/files/Telehealth%20and%20Suicide%20Care%20During%20the%20COVID-19%20Pandemic.pdf</a>. Accessed June 19, 2020.
- 74. \*ZEROSuicide Institute. *Telehealth tips: Managing suicidal clients during the COVID-19 pandemic.* Available at <a href="http://zerosuicide.edc.org/sites/default/files/Telehealth%20Tips%20with%20Suicidal%20Clients%20-%20FINAL.pdf">http://zerosuicide.edc.org/sites/default/files/Telehealth%20Tips%20with%20Suicidal%20Clients%20-%20FINAL.pdf</a>. Accessed June 19, 2020.
- 75. \*Perlman CM, Neufeld E, Martin L, Goy M, Hirdes JP. Suicide risk assessment inventory: A resource guide for Canadian health care organizations. Toronto, ON; Ontario Hospital Association and Canadian Patient Safety Institute; 2011. Available at <a href="https://www.patientsafetyinstitute.ca/en/toolsResources/SuicideRisk/Documents/Suicide%20Risk%20Assessme">https://www.patientsafetyinstitute.ca/en/toolsResources/SuicideRisk/Documents/Suicide%20Risk%20Assessme</a> nt%20Guide.pdf. Accessed June 4, 2020.
- 76. \*Nassar C, Costello JK, Wolf-Prusan L. *Telehealth learning and consultation (TLC) Tuesdays, April 28: Telehealth troubleshooting* [webinar slides]. Available at <a href="https://mhttcnetwork.org/centers/mid-america-mhttc/telehealth-learning-and-consultation-tlc-tuesdays">https://mhttcnetwork.org/centers/mid-america-mhttc/telehealth-learning-and-consultation-tlc-tuesdays</a>. Accessed June 9, 2020.
- 77. \*Kaslow NJ. Speaking of psychology: *Preventing suicide* [podcast]. Available at <a href="https://www.apa.org/research/action/speaking-of-psychology/preventing-suicide">https://www.apa.org/research/action/speaking-of-psychology/preventing-suicide</a>. Accessed June 16, 2020.
- 78. Perry Y, Werner-Seidler A, Calear AL, Christensen H. Web-based and mobile suicide prevention interventions for young people: A systematic review. *J Can Acad Child Adolesc Psychiatry*. 2016;25(2):73-79.
- 79. Centre for Suicide Prevention. *Suicide statistics, Canadian provinces and territories*. Available at <a href="https://www.suicideinfo.ca/resource/suicide-stats-canada-provinces/">https://www.suicideinfo.ca/resource/suicide-stats-canada-provinces/</a>. Accessed July 2, 2019.

## 6. Appendix A. Six Promising Practices – Comparison of Relevant Recommendations from Peer-Reviewed and Grey Literature

Promising Practice	Relevant Recommendations: Peer-Reviewed Literature	Relevant Recommendations: Grey Literature
Youth engage- ment: Building rapport, establishing a therapeutic space and helping youth prepare for virtual/ remote sessions	<ul> <li>Ensure sessions are accessible for youth with restricted internet access (e.g., youth living in poverty, rural/remote youth)<sup>38</sup></li> <li>Consider providing youth with session transcripts to help them remember information and strategies to use in daily life, if aligned with privacy requirements<sup>30</sup></li> </ul>	<ul> <li>Make sure youth can see and hear you clearly, 52,58,69 and that your screen is big enough to see the youth's face<sup>69</sup> <ul> <li>Both auditory and visual information are key to providing good virtual care, 69 so it is ideal to have both sources of information if possible given the youth context</li> <li>It can be harder to pick-up on non-verbal cues in the virtual environment, so pay special attention to facial cues.<sup>69</sup> Also pay attention to youth's tone of voice, use of negative language and atypical speech patterns.<sup>61</sup></li> </ul> </li> <li>Stay on screen the entire time and maintain eye contact.<sup>54,65</sup> Make sure youth can clearly see your face throughout the session.<sup>52,58</sup></li> <li>Discuss how to increase youth privacy (e.g., picking a time of day for the session that is quieter in the house, having a code word if someone is nearby, using chat if they can't speak privately, wearing headphones, password-protected sessions)<sup>52,62,65,69,73</sup></li> <li>Choose a mode of technology for sessions that meets youth needs/preference5<sup>54,62,64,65,74</sup> <ul> <li>Equity and access issues are critical to consider.<sup>57,69</sup> This can include using the phone/texting when internet is not an option,<sup>69</sup> and checking with youth how many phone minutes they have to talk.<sup>61</sup></li> </ul> </li> <li>Set-up your room to promote youth comfort (e.g., remove personal items, minimize distractions, use a headset so your voice is clear, ensure you are well-lit, set-up your computer so you can maintain good eye contact).<sup>54,58,67,69</sup> Let youth know they can be informal and use a background or emojis if that makes them more comfortable.<sup>58</sup></li> <li>Discuss what virtual/remote sessions will look like (e.g., security concerns, whether the session will be recorded).<sup>58,67</sup> Reassure youth at start of the session that you are in a private space.<sup>52,65,69</sup> Let the youth see your whole office.<sup>58,69</sup></li> <li>Keep youth engaged (e.g., use scree</li></ul>

		<ul> <li>Convey warmth and enthusiasm through your facial expressions and tone<sup>52,59</sup></li> <li>Ask youth what they need from your virtual relationship, and how you can make them feel safe and secure<sup>69</sup></li> <li>Help youth find a quiet, private place for your sessions where they will have minimal distractions.<sup>53,61</sup> Involve caregivers to make sure the space is private for the duration of your session.<sup>65</sup></li> <li>Encourage youth to test out technology before using<sup>73</sup></li> <li>Remind youth to make sure their phone (or other device, such as a laptop) is fully charged before the session<sup>61,65</sup></li> <li>Suggest turning off smart devices to increase privacy (e.g., Alexa, Google Home)<sup>65</sup></li> <li>Encourage youth to write down what they want to talk about before session, and to bring a paper and pen to the session to take notes<sup>53,61</sup></li> </ul>
School mental health professional boundaries		<ul> <li>Make sure youth and caregivers know when you are and aren't available, and who to contact when you are not available<sup>52,57,62,64,69,70</sup> <ul> <li>Arrange coverage periods if possible, and let youth know when you will be away<sup>70</sup></li> </ul> </li> <li>Connect with youth and caregivers using institutional (not personal) devices<sup>57</sup></li> <li>Have a clear schedule for when you meet with youth<sup>52</sup></li> </ul>
Consent procedures	<ul> <li>Consent for service form can include the name and contact information for multiple adult contacts, in case one is not available<sup>44</sup></li> <li>Consent should detail who the youth/caregiver should contact in case of crisis, especially when school-based eMental health services are not available<sup>43</sup></li> <li>Consent for service form should also describe risks and benefits of eMental health<sup>43</sup></li> <li>Service providers should maintain communication with caregivers to ensure continuity of care, if safe for youth<sup>43</sup></li> </ul>	Obtain caregiver consent/youth assent to conduct session remotely <sup>55,56,62,67,69</sup> Consent topics include telling the youth you will not record the session without permission; whether you will use a webcam during the session (if relevant); using a secure internet connection; having a back-up plan (what to do if there are technology issues); having the name and contact information for at least one emergency contact; and knowing the closest emergency room to where the youth is <sup>56</sup> The consent form can also detail: <sup>62</sup> A description of the eMental health service     Any required technical considerations     What you can and can't do (i.e., eMental health limits)     Expectations of service provider, youth and caregiver     Emergency contacts and multiple communication options     Consent for youth to participate in eMental health
Session logistics	<ul> <li>Ask youth participants to provide contact information for themselves and one supportive adult at the beginning of each session in case you are disconnected and need to get support to them<sup>36</sup></li> </ul>	<ul> <li>Make sure you are competent with whatever virtual/remote platform you plan to use and in providing risk assessment virtually/remotely.<sup>55,67,69</sup> Service providers need training and supervision.<sup>46</sup> Have a plan for receiving remote supervision as needed.<sup>62</sup></li> </ul>

- Service providers require training and clinical supervision to provide suicide assessment via eHealth<sup>31</sup>
- Have a back-up plan in case there are internet or technology issues before the session starts, and ensure the youth understands this plan<sup>43</sup>
- If immediate risk is identified through standard assessment, refer youth to crisis mental health services<sup>31,38</sup>
- Understand relevant case law/professional requirements for providing eMental health services to youth at risk for suicide<sup>41</sup>

- Check your technology right before the session (e.g., for software updates)<sup>67</sup>
- Ensure technology meets relevant privacy requirements.<sup>73</sup>
  Understand relevant local laws and regulations around providing eMental health services.<sup>68</sup>
- Plan a practice session with youth, if possible, to make sure you are both comfortable<sup>73</sup>
- Make sure you can access your school division's suicide risk assessment protocol electronically<sup>62</sup>
  - Completing a full suicide risk assessment virtually may be difficult, and so it is okay for service providers to focus on the most critical information needed to assess risk<sup>70</sup>
- Verify the youth's identity at the start of the session (if can't see them/haven't met them before)<sup>67</sup>
- Confirm consent/assent<sup>67</sup>
- Review privacy<sup>67,69</sup>
  - Check if the youth is safe to talk<sup>75</sup>
  - Take steps to mitigate any potential privacy issues.<sup>57</sup> For example, having the youth play white noise from an app.<sup>70</sup> Discuss what to do if privacy is interrupted, like if a sibling walks in (e.g., use of code word, hitting mute, switching to chat).<sup>52,73</sup>
- Review safety precautions<sup>67</sup>
  - Confirm the youth's physical location at start of the session<sup>54,61,62,67,68,70,74</sup>
  - Have a back-up plan for what you will do if technology difficulties occur. Know how you can reach youth if you get disconnected<sup>54,61,62,67,69,73</sup> and let them know how they can reach you.<sup>67</sup>
  - Have a list of urgent and non-urgent nearby resources ready.<sup>67</sup>
     Know the 24/7 emergency services in your area and who you can/need to contact if the youth is at risk of suicide.<sup>62</sup>
  - Make sure you have up-to-date and accurate emergency contact information (that works) for at least one primary caregiver, and ensure this person is available if they are needed.<sup>56,61,62,65,67,70,73,74</sup> Can consider having information for one contact inside the house and one outside.<sup>65</sup>
- Monitor how youth is feeling (e.g., through messaging) throughout the session and slow things down if they feel unsafe<sup>76</sup>
- Have a plan for how you will stay connected to the youth if you need to contact emergency services (especially if you are connecting with them by phone). 70,74 Stay connected with youth while you call 911 and until

overed, any other issues that occurred <sup>62,69,73,74</sup> e session by asking what can be improved and making a plan for at meeting. <sup>65,74</sup> If youth miss the session, check in with them to see going on and how you can adjust to make it easier/more able for them to attend. <sup>69</sup> safety planning is the same as in person. <sup>68</sup> Work together to build a an (e.g., by sharing screen), <sup>73</sup> and find a way to get the plan to them
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- Give each youth a unique, non-identifying username and password<sup>38,41</sup>
- Store youth information (e.g., email addresses) in an encrypted computer system<sup>41</sup> and use encrypted point-to-point technologies when videoconferencing<sup>43</sup>
- Ensure virtual session hosting platform is compliant with relevant health privacy law in your area (e.g., HIPAA)<sup>45</sup>
  - Determine who is in the room on both sides (other than the youth and service provider), and ensure that the people in the rooms meet privacy law requirements<sup>43</sup>

#### 7. Appendix B. Summary of Key Grey Literature Resources

# Alliance for Inclusion & Prevention – Telehealth Guidelines for School Mental Health Professionals: Strategies for Engaging Students and Building Resilience<sup>52</sup>

This document provides telehealth guidelines for school mental health professionals. While this document is not specific to suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health. The document notes that it can be difficult to engage youth via telehealth, especially if the service provider did not have a previous relationship with the youth. In this case, the service provider might want to use an exaggerated amount of enthusiasm to neutralize the negative aspects of being online (e.g., more distractions, poor internet connectivity, harder to communicate non-verbally). Other tips from this document include:

- Make sure youth can hear and see you clearly
- Talk about who is in the room or nearby and make plans with the youth to increase privacy if needed (e.g., planning calls during certain times of day, using a code word if someone is nearby, wearing headphones).
- Create a clear schedule for your sessions and make sure the youth knows who to contact if you're unavailable
- Even though you are generally seated during telehealth, make sure you and the youth get up and move around as a relaxation technique
- Take advantage of screen sharing as a teaching technique (e.g., using a graphic to explain what CBT is)

# American Psychiatric Association (APA) – How to Prepare for a Video Appointment with your Mental Health Clinician<sup>53</sup>

This short document provides tips for clients as they prepare to engage in eMental health services. School mental health professionals may wish to share some of these tips with the youth they are working with. While the tips in this sheet are not for youth specifically, many are still highly relevant. Tips include:

- Finding a quiet, private place for your session
- Making sure your technology will work for your session
- Thinking about what you want to talk about during your session
- Bringing a paper and pen to your session to take notes
- Asking questions during the session just like you normally would

#### American Psychological Association (APA) – Office and Telepsychology Checklist for Telepsychological Services<sup>54</sup>

This webpage has tips and a checklist for preparing to offer eMental health services. While this checklist is not specific to youth or suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health. Key areas for consideration include deciding whether the technology being used meets the needs of the youth and privacy requirements; the set-up of the room (e.g., private, quiet location; removing personal items; maintaining good eye contact); doing pre-session planning (e.g., having a back-up plan if technology difficulties occur); and beginning the virtual session (e.g., confirming the youth's location and where/how you can reach them if you get disconnected).

#### American Psychological Association (APA) – Ethical Guidance for the COVID-19 Era<sup>55</sup>

This article from the *Monitor on Psychology* presents practical tips for psychologists during COVID-19. While this article is not specific to youth or suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health. Topics for consideration include competence (e.g., being competent with online platforms being used to deliver services); informed consent; confidentiality and setting boundaries.

#### American Psychological Association (APA) – Informed Consent Checklist for Telepsychological Services<sup>56</sup>

This short webpage provides tips for eMental health consent forms. These tips may be useful to school mental health professionals as they engage with youth in the virtual/remote environment. Tips include telling the client

you will not record the session without permission; specifying if you will use a webcam during the session (if relevant); using a secure internet connection; having a back-up plan (what to do if there are technology issues); having the name and contact information for at least one emergency contact, and knowing the closest emergency room to where the youth is.

## American School Counselor Association (ASCA) – Planning for Virtual/Distance School Counseling During an Emergency Shutdown<sup>57</sup>

This two-page document highlights that it is critical for schools to consider equity and access issues when implementing eMental health services during COVID-19 or other emergency shutdowns. Ideally, a team is involved in planning and ongoing discussion about issues as they arise. Specific tips include:

- Ensuring that youth and caregivers know how to reach their school counselor through institutional (not personal) email accounts or phones
- Youth and caregivers know what to do when their school counsellor is not available (for both urgent and non-urgent situations)
- Steps to take to mitigate issues with confidentiality and privacy in the virtual environment, and ensure youth and families understand potential privacy issues
- Preparing youth to participate in mental health services in the virtual/remote environment

#### **COVID-19 Tips: Building Rapport with Youth via Telehealth<sup>58</sup>**

This preprint provides tips on using telehealth with children and youth. While this document is not specific to suicide risk assessment, it may still be useful to school mental health professionals. Specifically, information is given on setting the scene (e.g., minimizing distractions in view of your camera; encouraging caregivers to minimize distractions where the youth is set up; allowing youth to have an informal setup; giving younger children the option to sit wherever they want or to get up and move around; letting teenagers have sessions without a caregiver present if that makes them more comfortable; allowing freedom in using background features such as being in outer space; making sure the youth can clearly see your face throughout the session), introducing telehealth to youth (e.g., explaining why you are using telehealth; discussing security; letting them know if a session is being recorded; letting them see your whole office; discussing technical difficulties; letting them ask questions), building rapport (e.g., use exaggerated expressions; use humor if you experience technical difficulties; give them opportunities to speak and/or assert control since it's difficult to interrupt or speak over someone with telehealth) and keeping youth engaged (e.g., use screen sharing; allow them to show you things in their environment such as art or toys; take advantage of features that allow you to play games together).

#### Creative Interventions for Online Therapy with Children: Techniques to Build Rapport<sup>59</sup>

This document provides techniques for building rapport with children when using online therapy. While this document is not specific to suicide risk assessment with youth, it may still be useful to school mental health professionals. Practitioners are encouraged to be vigilant about conveying warmth through facial expressions and tone of voice. Also, developmentally-appropriate playfulness is encouraged (e.g., wearing a wacky hat). Various examples of games are given (e.g., having the child show the practitioner something in their room that is important to them; playing rock, paper, scissors, and the winner gets to ask the other person a question).

#### Mental Health Commission of Canada (MHCC) – Toolkit for e-Mental Health Implementation<sup>60</sup>

This toolkit provides considerations for use of eMental health, and a roadmap for implementing eMental health services. While this toolkit is not specific to youth or suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health.

# Mental Health Technology and Transfer Center Network (MHTTC), Northeast and Caribbean (HHS Region 2) – Engaging with Clients Over the Telephone and Using Texts<sup>61</sup>

This document highlights that using the internet to provide eMental health services (including suicide risk assessment) is not a possibility with all youth. Thus, it is also important that school-based service providers are prepared to use either phone calls or texts to engage. Tips for using the phone include:

- Asking the youth/caregiver how many minutes they have for talk and text, and any other relevant phone access information
- Understanding your school division's requirements for getting consent to provide services over the phone
- Helping youth be ready to engage in the phone session. This includes things like finding a quiet, private location; removing distractions; making sure their phone is charged; and having a pen and paper available to they can take notes.

On the phone, service providers also cannot see body language or non-verbal clues, and so instead they can pay attention to tone of voice, use of negative language and use of atypical speech patterns (for that youth).

If youth have limited phone call minutes, texts are another option. With texts, service providers and youth should still find an agreed upon time to talk, so the conversation is happening in real time. Texts can also be a way to provide support or check-ins in between phone calls.

Just like when using video technologies, if a service provider is worried a youth is at risk, they should:

- Make sure they have the youth's physical location at the start of the session
- Make sure they have emergency contact information for primary caregivers
- Have a contact plan in case the phone call/text is interrupted
- Stay on the phone with the youth until emergency services arrive, if needed

## National Association of School Psychologists (NASP) – COVID-19 Resources: Comprehensive School Suicide Prevention in a Time of Distance Learning<sup>62</sup>

This document discusses suicide prevention, intervention and postvention in the virtual/remote environment. It also provides specific tips for conducting school-based suicide risk assessment with youth via eHealth. NASP has also created an intervention checklist that supports service providers to <u>prepare for</u> and <u>conduct</u> a risk assessment with youth in the eHealth environment. Tips from this document include:

- Recognize that schools are not open 24/7, and so youth at risk need to know who to contact when schoolbased supports are not available
- Make sure suicide risk assessment protocols are available electronically for service providers
- Adaptations to consider in the virtual environment include how to connect with students virtually, how to secure student safety remotely, how to do secure supervision, and how to contact and consult with primary caregivers
- Have a range of virtual options available to best most youth needs (e.g., telephone, Zoom, Google Hangouts), as is relevant to your division's privacy requirements
- Ensure youth and caregivers understand privacy risks within the virtual service delivery environment, and work with youth to promote their privacy (e.g., use of headphones)
  - o For primary caregivers, the consent should include:
    - A description of the eMental health service
    - Any required technical considerations
    - What you can and can't do (i.e., eMental health limits)
    - Expectations of service provider, youth and caregiver
    - Emergency contacts and multiple communication options
    - Consent for youth to participate in eMental health
- Have multiple back-up options ready to go (e.g., if using Zoom, also make sure you have a least one phone number), and know how you can contact primary caregivers
- Know the 24/7 emergency services in your area and who you can/need to contact if the youth are at risk
  of suicide
- Documentation is key make sure to document when assessment started and ended, the youth's physical location, and the location of their primary caregiver(s)
  - o If possible, ensure that primary caregiver(s) are available and understand the safety plan (e.g., means restriction, or limiting access to lethal methods of suicide)
  - Consider using virtual safety planning tools, like the My3 app

- If urgent intervention is required, maintain constant verbal (and if possible visual) contact until resources arrive
- Ensure you have immediate access to supervision to support you after intervening

## National Association of School Psychologists (NASP) – Considerations for Delivery of School Psychological Telehealth Services<sup>63</sup>

This document provides tips and considerations for offering school psychology services via telehealth. While this checklist is not specific to youth or suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health. Topics covered include benefits and drawbacks of telehealth, considerations for certification and licensure, legal and ethical implications and a set of nine key recommendations.

# National Association of School Psychologists (NASP) – COVID-19 Resources: Virtual Service Delivery in Response to COVID-19 Disruptions<sup>64</sup>

This document reviews recommendations for school mental health professionals who need to deliver services virtually in the context of COVID-19. While this checklist is not specific to youth or suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health. Things to consider include making sure the service provider has clear limits on when they are and aren't available (and what the youth/caregiver should do when service providers are not available); ensuring confidentiality agreements are updated as needed to include the remote environment; and, ensuring youth have equitable access to virtual/remote services (e.g., youth who do not have a computer or internet).

#### National Center for School Mental Health – Telemental Health 101 Webinar<sup>65</sup>

This webinar discusses practical tips for conducting telemental health. While this webinar is not specific to suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health. Tips are given regarding the physical location (e.g., work with caregivers to make sure it is private, there is adequate lighting, minimal distractions); establishing a therapeutic space (e.g., making sure everyone knows who is on the call on both sides, considering who might be able to hear the sessions, staying on screen the entire time and maintaining eye contact; speaking slowly and clearly; using non-verbal cues); technical considerations (e.g., plug into a network instead of using WiFi; consider the best option for cost and what is user-friendly); preparing for the call (e.g., make sure devices are fully charged; turn off smart devices such as Alexa; use headphones; send resources ahead of time); safety (e.g., having emergency contact information - one inside the home, one outside; developing a safety plan); and ending the session (e.g., ask for feedback about what can be improved; plan for next session).

#### National Institute of Mental Health (NIMH) - COVID-19: Youth Suicide Risk Screening Pathway<sup>66</sup>

This one page assessment pathway is designed to support service providers who need to provide suicide risk assessment to youth over the phone. It includes recommendations on screeners that can be used in this setting, and guidance on what to do if the youth is identified as low risk, moderate risk (further evaluation needed) or high risk. In high risk cases where the service provider recommends the youth go to their local emergency department, they should tell the youth to bring a mask. The pathway also recommends avoiding sending the youth to the emergency department if possible, to lower potential COVID-19 transmission risk. Follow-up guidance is also provided.

#### National Register of Health Service Psychologists – TeleMental Health via Video Conferencing Checklist<sup>67</sup>

This document provides a checklist of things to do to prepare for a telemental health session (pre-session and immediately before the session). While this checklist is not specific to youth or suicide risk assessment, it may still be useful to school mental health professionals as they prepare to work with youth using eMental health. Presession, service providers should obtain informed consent from the primary caregiver; discuss the risks and benefits of telemental health; verify identity; discuss privacy (e.g., who is in the room, others in the home, whether the session is being recorded); discuss safety (e.g., back-up plan in case of getting disconnected, emergency contact information, a number client can call you at, location of client during session, nearby resources); and review technical issues (e.g., how to use technology). Immediately before the session, service providers should

make sure their technology works (e.g., check for software updates, check camera, check audio, adjust settings) and that they are set-up properly (e.g., lighting, background, no distractions). During the session, service providers should check their visual and audio clarity again; reiterate informed consent; verify privacy; and review emergency contact information and location of the client.

#### National Rural Health Resource Center – Telehealth Start-Up and Resource Guide<sup>68</sup>

A comprehensive document that explains what telehealth is, why it is important, practice guidelines, and various educational resources. Service providers should think of telehealth the same way they would in-person intervention (e.g., maintain standards). It is also important to make sure there is technical support in place to ensure security and privacy, and that service providers are up to date with regulations and laws regarding telehealth, as they can change frequently.

# Ontario Centre of Excellence for Child & Youth Mental Health/School Mental Health Ontario – Virtual Care 101 Webinar: Questions & Answers<sup>69</sup>

This webinar discussed providing virtual mental health care delivery with children and youth in school and community settings. While this document is not specific to suicide risk assessment, it may still be useful to school mental health professionals. It defines virtual care as "the use of digital tools to communicate and provide mental health services to clients in real time through video messaging, texting, apps or phone" (p. 4). Topics covered include how to set-up virtual care sessions; ethics, privacy and legal issues in the virtual care environment; client engagement; clinical considerations; and comfort building/troubleshooting technical issues. Specific tips/recommendations include:

- Make sure you have the right equipment, and a screen big enough to see the client's face. Also make sure you are at the center of your screen and looking at the camera.
- Practice using the technology before the session
- Make sure the platform you are using meets your division's privacy standards
- Obtain consent to provide services through a virtual/remote platform
- Use a good quality headset and mic, so your voice is clear and even, and make sure you are well-lit and easy to see
- Make sure youth feel comfortable by showing them that you are in a quiet, secure, private space (e.g., use the camera to show them your space). Reassure them you are alone in the private space. Revisit informed consent and confidentiality at the start of each session.
- Provide youth and families with an orientation letter, so they know what to expect
- Check-in with youth who miss their session to find out what is going on and how you can adjust to make it easier/more comfortable for youth to attend
- Talk to the youth about how to increase privacy and confidentiality, especially if the computer is in a shared space (e.g., headphones; asking others to stay out of room during session; using chat function). Remind the youth about the strategies you are using to maintain privacy/confidentiality at the start of each session.
- Set boundaries around when you are and aren't available
- Document what platform you used to conduct the session, any technology difficulties; start/stop time of session; session attendees; specific topics covered in the session; and any process issues that might have arisen
- Have a back-up plan in case technology issues happen
- Ask youth what they need from your virtual relationship, and how you can make them feel safe and secure
- Have an idea about strategies you can do remotely to engage youth (e.g., sharing a photo, a favorite song)
- If it is safe to do so, involve both youth and their primary caregiver in building a safety plan
- If youth is in immediate danger, keep connected with them while you call 911
- If youth experience dysregulation, ask if there is someone in the home who can help them to regulate their emotions
- It can be harder to pick-up on non-verbal cues in the virtual environment, so pay special attention to facial cues

- Let youth know they can interrupt you at any time if they need to tell you something
- Recognize that using the internet for virtual care is not an option for all families. Phone consultations may be the best option in these cases.

## Suicide Prevention Resource Center (SPRC) – Treating Suicidal Patients During COVID-19: Best Practices and Telehealth<sup>70</sup>

This webinar (moderated by Julie Goldstein Grumet and hosted by Dr. Barbara Stanley)<sup>d</sup> discussed best practices for working with suicidal clients during COVID-19. These include:

- Obtaining the youth's physical location at the start of the session in case you need to contact emergency services
- Obtaining emergency contact information for at least one person at the start of the session (and making sure this contact information works)
- Developing a back-up plan in case of technology failure
- Making sure the youth has privacy as much as possible (e.g., somewhere where siblings won't interrupt).
   Could suggest putting a towel under their door or playing white noise from an app to increase privacy.
- Having a plan for how you will stay on the phone with the youth while arranging emergency services if needed
  - Use videoconferencing if possible for the session, so you have your phone available to contact emergency services if needed
- Asking about increased access to lethal means (e.g., medication)
- Asking about additional COVID-19 related risk factors (e.g., social isolation, family financial stress)
- Checking in with the youth more often than you normally would when they are at elevated risk. During brief check-ins, consider doing a brief suicide screen (i.e., screen for suicide regularly). Make sure the youth knows when you will contact them next.
- Ensuring the youth and their caregiver know who to contact (e.g., crisis hotline) when the service provider is not available
- Working with the caregiver to monitor the youth's safety (if appropriate and safe for the youth).
   Developing a plan for how to bring the caregiver into the conversation.
- When developing a safety plan, communicate that this is particularly important to do during COVID-19 because hospitals have limited capacity
- Figure out a way for the youth to get a copy of their safety plan (e.g., text it to them, have them take a screenshot)
  - Let the primary caregiver know you have developed a safety plan, and involve them if possible
- Identify coping strategies on the safety plan that can be done during COVID-19 (e.g., virtual activities, virtual connection with friends)
- Encourage the youth to keep a daily schedule and make plans for each day
- For service providers, arrange coverage periods if possible, and let youth know when you will be away Finally, doing a full suicide risk assessment virtually may be difficult, and so it is okay for service providers to focus on the most critical information needed to assess risk.

#### ZEROSuicide Institute – Telehealth and Suicide Care During the COVID-19 Pandemic<sup>73</sup>

This document provides information on how practitioners can adapt to using telehealth to provide safe and effective suicide care. While this document is not specific to youth, it may still be useful to school mental health professionals. Practitioners can use Zoom or Skype for Business, as these are HIPAA compliant options. Before the session, practice using the online platform so you are familiar and comfortable with it – this will help you to communicate clearly during the actual session. Have the youth practice beforehand as well (e.g., playing with chat feature, doing a 5-minute practice session) so they are comfortable. If possible, schedule a 5-minute practice

<sup>&</sup>lt;sup>d</sup> We found three different offerings of similar webinar content as it pertained to suicide risk assessment via eHealth. In addition to the webinar "Treating Suicidal Patients During COVID-19: Best Practices and Telehealth,"<sup>70</sup> this content was also offered as part of the Mental Health Technology Transfer Center (MHTTC) Network's Clinical Innovations in Telehealth Learning Series, "Clinical Innovations in Telehealth: Telehealth and Suicide Care"<sup>71</sup> and as part of the School-Based Health Alliance/National Center for School Mental Health's webinar on "Suicide Prevention, Intervention & Postvention During COVID-19: What School-Based Staff Need to Know."<sup>72</sup>

session with the youth to make sure they and you are both comfortable. Have a backup plan in case there are technical issues (e.g., having a phone number to call and connect with the client). Discuss ways to make sure the youth feels a sense of security (e.g., muting the conversation if someone walks in during the call, wearing headphones so others can't hear, getting their choice on whether or not you record the session). Gather emergency contact information in case the client needs to be transported to emergency care, work together to develop a safety plan (e.g., by sharing your screen and having them contribute), and then email the plan to the patient and their parent/guardian. Service providers should continue to keep detailed records for each client.

#### ZEROSuicide Institute - Telehealth Tips: Managing Suicidal Clients During the COVID-19 Pandemic<sup>74</sup>

This document provides tips on evaluating and treating suicidal individuals through telehealth. While this document is not specific to youth, it may still be useful to school mental health professionals. Before initiating contact, practitioners should develop a plan for how to stay on the phone with the youth in case they need to contact emergency services. Once on the phone, practitioners should request the youth's location (in case they need to contact emergency services) and emergency contact information. Ask the youth's permission (as is developmentally appropriate) to talk with individuals in the home who can help monitor and provide support for the youth in-person. Develop a safety plan with the youth and provide a copy to them. Take the youth's preferences into account (e.g., some prefer texts while others like phone calls). Schedule the next phone call while you are ending the current one to ensure follow-ups. Keep documentation of all interactions.

#### ZEROSuicide Institute – Zero Suicide Implementation During COVID-19 Response<sup>46</sup>

This document discusses the challenges of preventing suicide during COVID-19 and things practitioners should consider during the pandemic. While this document is not specific to youth, it may still be useful to school mental health professionals. Recommendations include increasing phone check-ins given the stressful changes youth are experiencing with COVID-19 and using that time to review and update safety plans and making sure youth have easy access to their updated safety plans (e.g., pictures of the plan, texting). It is also recommended that service providers receive training and supervision in telehealth.

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