

Digital Mental Health Interventions for Suicide Prevention among Young Adults

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Funding and Disclaimer



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Disclosures

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About SPRC

The Suicide Prevention Resource Center (SPRC) is the only federally funded resource center devoted to advancing the implementation of the National Strategy for Suicide Prevention. SPRC is supported through a grant from the U.S. Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA).

SPRC builds capacity and infrastructure for effective suicide prevention through consultation, training, and resources for state, tribal, health/behavioral health, and community systems; professionals and professional education programs; and national public and private partners and stakeholders.



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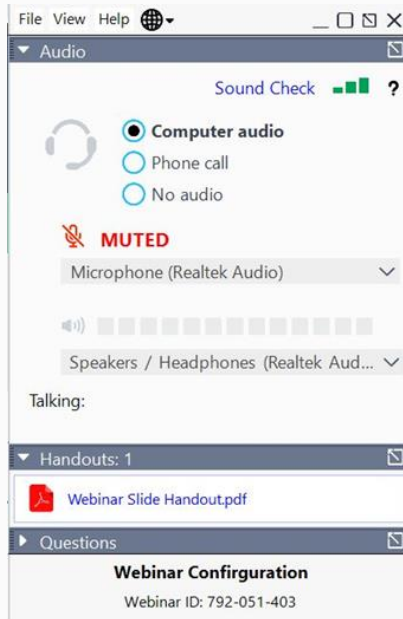
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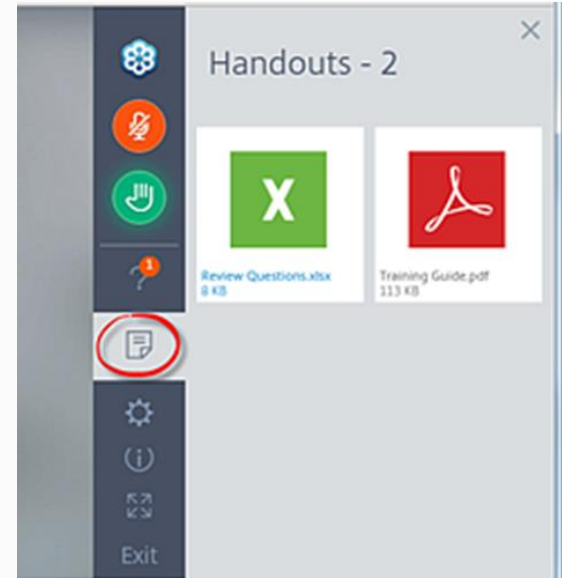
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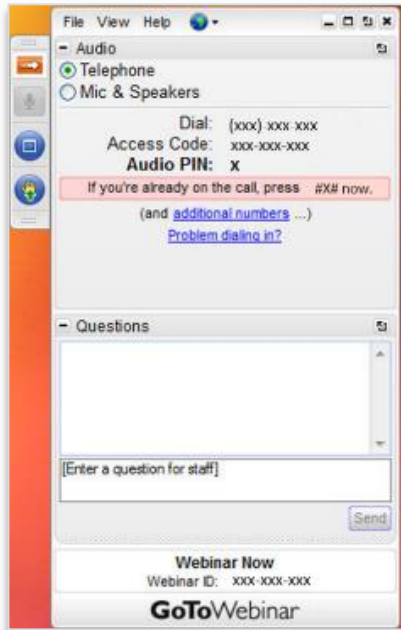
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How To Participate in Q&A

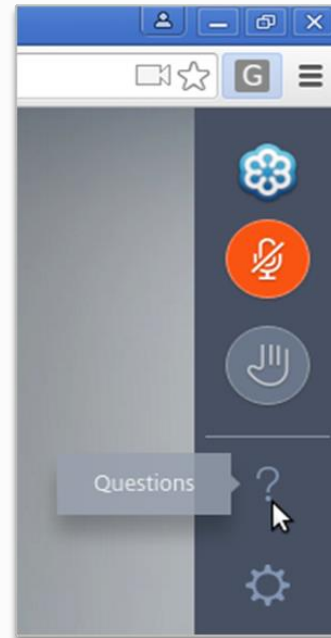
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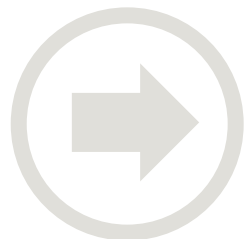


Instant Join Viewer

Click the “?” symbol to display the “Questions” area.



Learning Objectives



Describe	<ul style="list-style-type: none">• Rates of suicidal ideation and behavior
Discuss	<ul style="list-style-type: none">• Challenges to suicide-specific care delivery models• Opportunities and challenges of digital mental health tools (DMHTs) to address this treatment gap
Examine	<ul style="list-style-type: none">• Use of DMHTs for treating suicidal ideation and preventing suicide<ul style="list-style-type: none">• Evaluate strengths and limitations of these approaches

Overview



- Suicidal thoughts and behaviors among young adults
- Interventions for suicide
- Treatment gaps and opportunities for prevention
- Digital mental health interventions for suicide
- Moving the field forward: Dissemination and implementation



Suicidal Thoughts and Behaviors among Young Adults

Young Adulthood as a Developmentally Sensitive Time for Mental Health

- **Half of all mental health disorders** over the lifetime occur while individuals are **24 years old or younger**. *(Jones, 2013)*
- Typically marked as a period of emerging independence with numerous stresses of adulthood, including responsibility over one's own health and health care.



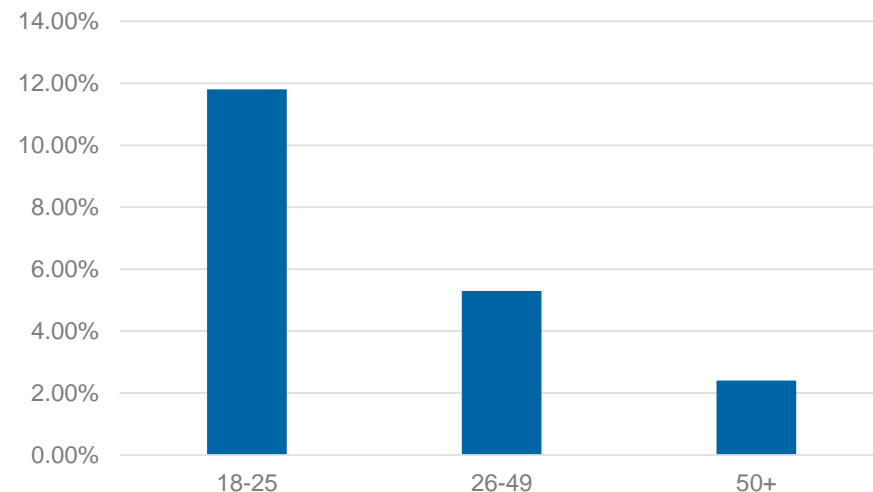
Image: pxfuel.com

Young Adults and Suicide: A Growing Problem

Young Adults (18- to 25-year-olds):

- Highest and fastest growing rates of suicide-related thoughts and behaviors (SITBs)
- Lowest rates of outpatient mental health care use
- Reasons cited often include stigma and preferences for self-management

2019 Suicidal Ideation Prevalence by Age

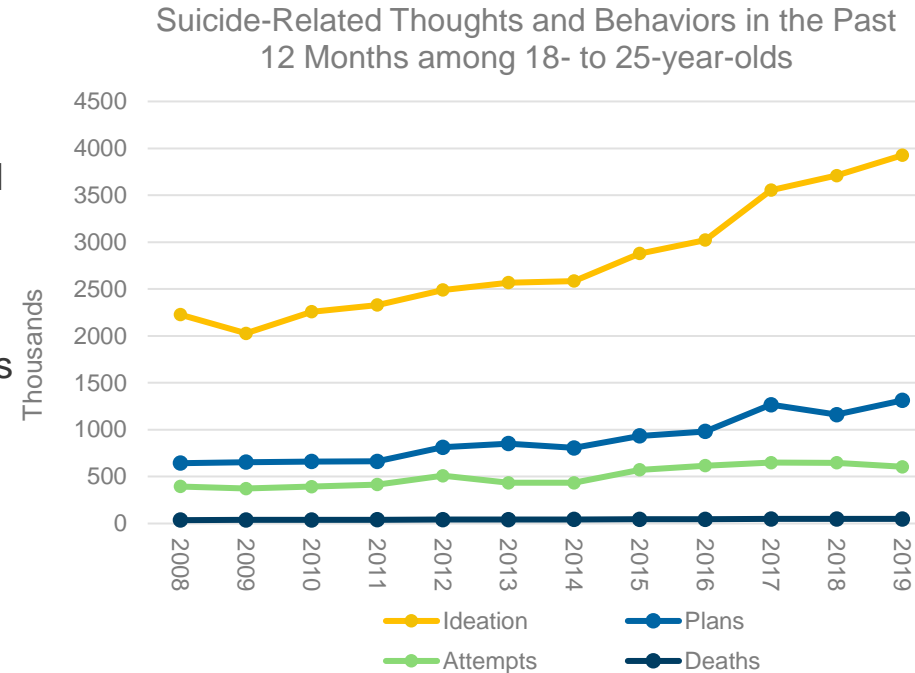


Sources: Czyz et al., 2013; Mojtabai et al., 2011; National Center for Health Statistics, 2020; Substance Abuse and Mental Health Services Administration (SAMHSA), 2019

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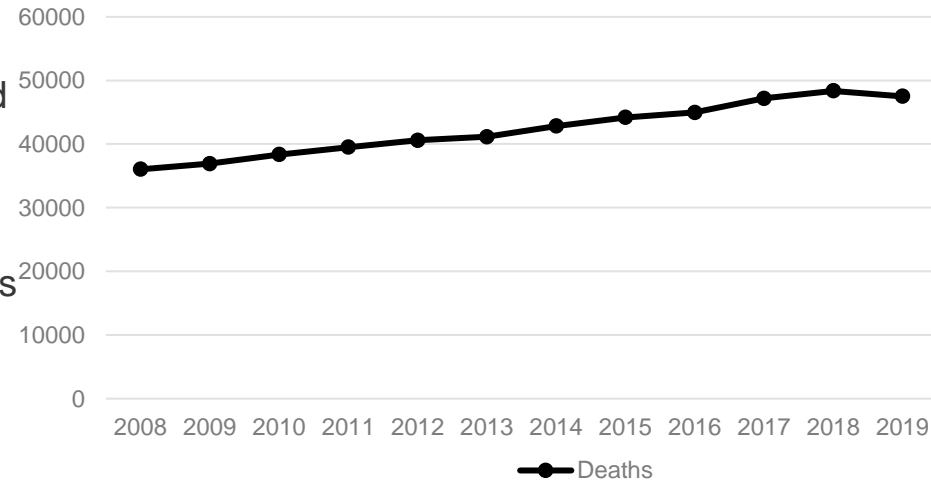
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Suicide-related thoughts and behaviors in the past 12 months among 18-25 year olds



Sources: Czyz et al., 2013; Mojtabai et al., 2011; National Center for Health Statistics, 2020; Substance Abuse and Mental Health Services Administration (SAMHSA), 2019



Interventions for Suicide

Treatments That Work

Brief interventions:

- Safety Planning Intervention (SPI)
- Crisis Response Planning

Suicide-specific interventions:

- Collaborative Assessment and Management of Suicidality (CAMS)
- Cognitive Behavioral Therapy for Suicide Prevention (CBT-SP) / Brief Cognitive Behavioral Therapy (BCBT)
- Dialectical Behavior Therapy (DBT)

Source: Brodsky et al., 2018

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Treatments That Work (con't)

Safety Planning and Crisis Response Planning

- Effective for reducing suicidal behavior post-discharge as well as reducing hospitalizations and repeat hospitalizations.

Source: Stanley et al., 2018

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Patient Safety Plan Template

Step 1: Warning signs (thoughts, images, mood, situation, behavior) that a crisis may be developing:	
1.	_____
2.	_____
3.	_____
Step 2: Internal coping strategies – Things I can do to take my mind off my problems without contacting another person (relaxation technique, physical activity):	
1.	_____
2.	_____
3.	_____
Step 3: People and social settings that provide distraction:	
1. Name _____	Phone _____
2. Name _____	Phone _____
3. Place _____	4. Place _____
Step 4: People whom I can ask for help:	
1. Name _____	Phone _____
2. Name _____	Phone _____
3. Name _____	Phone _____
Step 5: Professionals or agencies I can contact during a crisis:	
1. Clinician Name _____	Phone _____
Clinician Pager or Emergency Contact # _____	
2. Clinician Name _____	Phone _____
Clinician Pager or Emergency Contact # _____	
3. Local Urgent Care Services	
Urgent Care Services Address _____	
Urgent Care Services Phone _____	
4. Suicide Prevention Lifeline Phone: 1-800-273-TALK (8255)	
Step 6: Making the environment safe:	
1.	_____
2.	_____
<small>Safety Plan Template ©2008 Barbara Stanley and Gregory K. Brown, is reprinted with the express permission of the authors. No portion of the Safety Plan Template may be reproduced without their express, written permission. You can contact the authors at bsm2@columbia.edu or gregbrown@gmail.com.</small>	

The one thing that is most important to me and worth living for is:

Treatments That Work (con't)

Collaborative Assessment and Management of Suicidality (CAMS)

- Flexible framework
- Leverages other evidence-based clinical interventions
- Effective for reducing suicidal ideation (SI) and increasing protective factors such as hope



Source: Jobes et al., 2017

Treatments That Work (con't)

CBT-SP

~10-12+ session cognitive behavioral therapy

- Three core phases
- Patients ~1/2 as likely to experience suicide attempt (SA) in 2 years following treatment



Sources: Bryan, 2019; Bryan & Rudd, 2018

Treatments That Work (con't)

DBT

- ~6-12 months
- Individual therapy + skills groups + in-moment telephone coaching + therapist consult groups
- Reductions in SI severity, SAs, ED visits, and non-suicidal self-injury (NSSI)



Sources: Brodsky et al., 2018; Linehan et al., 2015

Common Components of Standard Care Suicide Prevention Interventions

- Assessment
- Crisis Response or Safety Planning
- Lethal Means Reduction
- Caring Contacts or Follow-up

National Action Alliance for Suicide Prevention: Transforming Health Systems Initiative Work Group, 2018



Challenges to Current Prevention Infrastructure

Barriers to Mental Health Care in General Are Abundant

Attitudinal Barriers

- Wanting to handle problems on own
- Perceived ineffectiveness of treatment
- Stigma
- Thinking problems/symptoms will resolve on their own
- Problem perceived as not severe enough for treatment

Structural Barriers

- Financial
- Availability of treatment
- Transportation difficulties
- Inconvenience

Source: Andrade et al., 2013

Barriers to Mental Health Care Are Amplified among Young Adults With SI

Many young adults seek mental health support on college campuses, which often have:

- Limited hours
- Long waitlists
- Inaccessible locations
- Stigma

Young adults across potential treatment settings often:

- Have problems recognizing symptoms (low mental health literacy)
- Believe mental health symptoms are developmentally appropriate
- Experience stigma and embarrassment
- Have a preference for self-reliance (*Gulliver, Griffiths, & Christensen, 2010*)

Limited Access to Quality Care

Limited Clinicians and Training

- Clinicians are often underprepared to address suicidal thoughts and behaviors.

Current models of care are based on in-person visits

- Less than half of those with any mental health concerns in the past year saw a provider for mental health treatment.



Sources: Garraza et al., 2020; SAMHSA, 2019; Schmitz et al., 2012

Stalled Progress

- Prediction of suicide overall has not improved in 50 years.
- Limited types of interventions produce small effect sizes.
- Need for improved study of suicide prevention outcomes in well-powered RCTs, interventions that address *common* causes of self-injurious thoughts and behaviors (SITBs).



"When anxiety strikes" by Alpstedt is licensed under [CC BY-NC-SA 2.0](https://creativecommons.org/licenses/by-nc-sa/2.0/)

Sources: Fox, et al., 2020; Franklin, et al., 2017

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Opportunities for Improved Access: Digital Interventions

Digital Mental Health Interventions Are Effective

Smartphone-based digital mental health interventions

- Offer an opportunity for increased autonomy and increased control over their recovery process.
- Enable new ways to engage people in their recovery process.
- Comparable to face-to-face interventions.
- Young adults are interested in accessing interventions via their smartphones.



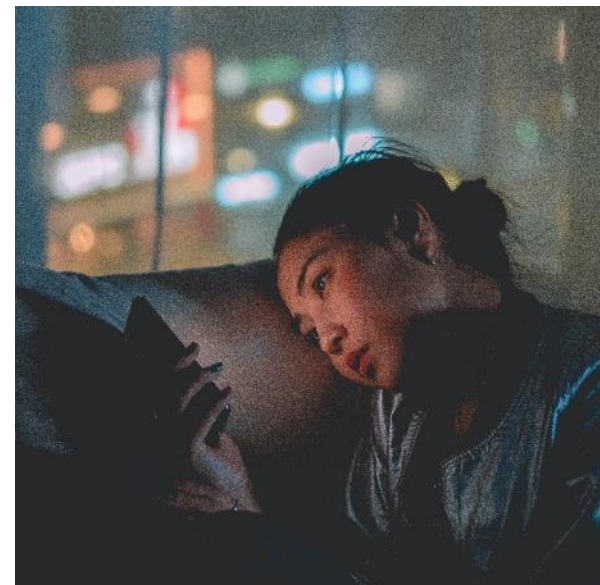
Sources: Firth, et al., 2017a; Firth, et al., 2017b; Pew Research Center, 2015

Digital Tools for Suicide Prevention

Many different types of tools

All longitudinal and modular in nature

- Multi-week DBT skills trainings
- Eclectic CBT/DBT/ACT-based online apps
- Safety planning and coping skill aggregation apps
- Text-based supportive messaging, reminders, and tips
- Narrative-based writing interventions
- Therapeutic Evaluative Conditioning



Arshad et al., 2020; Larsen et al., 2016; Melia et al., 2018

Efficacy and Acceptability

An emerging evidence base

- Meta-analyses show small, but promising effect sizes ($g=-.12$ - $-.26$) for SI.
- Acceptability is generally high, especially for smartphone- or internet-based tools, with most studies ranging from ~80-94% finding the tools helpful.
- Imperative to involve those with lived experience in design and implementation of intervention.



Research to Practice Gap





Next Steps: A Focus on Implementation

Digital Inequities

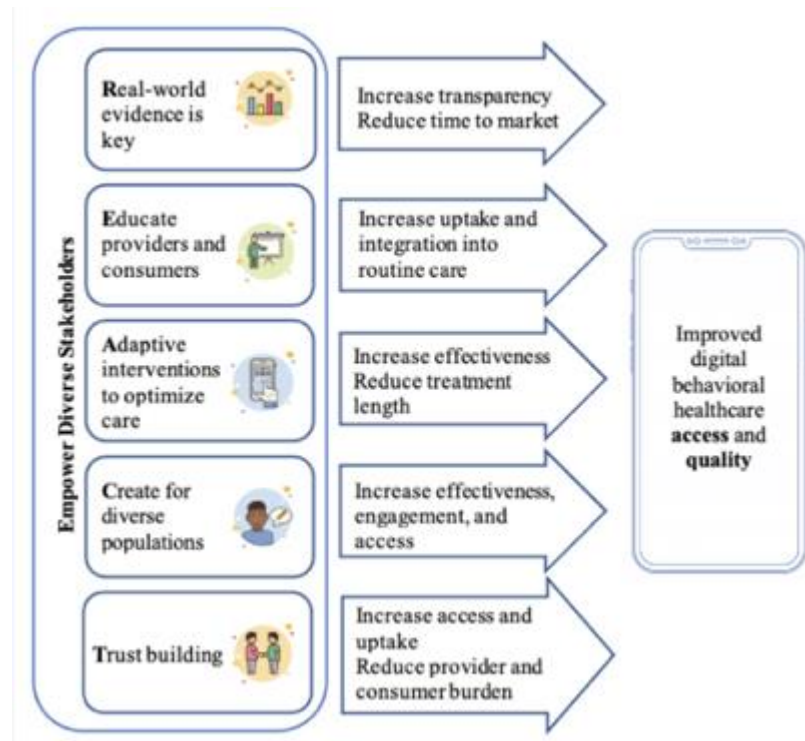
- Socioeconomic status
- Age
- Education level
- Quality of social support network
- Immigration status
- Location
- Health literacy

As reliance on digital health approaches increases, these inequalities may further exacerbate existing health disparities and reduce health care access for those most likely to be affected by the ongoing crises.

Source: Friis-Healy et al., 2021

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Recommendations for Improving Digital Mental Health Access and Quality



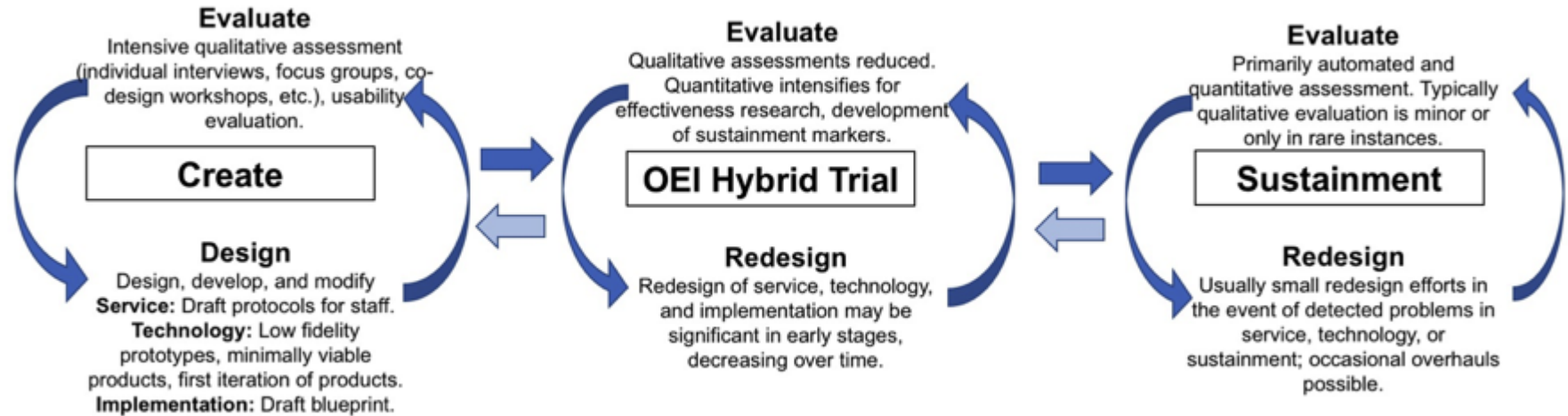
Source: Friis-Healy et al., 2021

Accelerated Creation-to-Sustainment (ACTS)



Source: Mohr, Lyon, Lattie, Reddy, & Schueller, 2017

Accelerated Creation-to-Sustainment (ACTS)



Source: Mohr, Lyon, Lattie, Reddy, & Schueller, 2017

What's Available Now?

- Crisis Text Line (<https://crisistextline.org>) - a text messaging service that offers crisis intervention.
- Lock to Live (<https://Lock2Live.org>) - a website that offers an interactive planning tool to support safe firearm storage.
- Now Matters Now (<https://NowMattersNow.org>) - a website that offers videos, lessons, and a DBT skills mini-course for individuals with suicidal thoughts.
- PTSD Coach (<https://mobile.va.gov/app/ptsd-coach>) - an app that offers a safety planning feature similar to the paper and pencil safety plans used at VAs across the country.
- Stanley-Brown Safety Plan (<https://fnd.io/#/us/ios-universal-app/695122998-stanley-brown-safety-plan-by-two-penguins>) - a stand-alone safety planning app.
- Virtual Hope Box (<https://apps.apple.com/us/app/virtual-hope-box/id825099621>) - app where users upload pictures, soundclips, and virtual artifacts that provide connection to living.
- iBobbly (<https://apps.apple.com/au/app/ibobbly/id1478592523>; Australia only) - ACT-based 6-week intervention designed for Australian indigenous youth.
- Blueice (<https://www.oxfordhealth.nhs.uk/blueice/>) - prescribed app used in NHS system that contains mood tracking and distress tolerance skills. Meant to be used in conjunction with in-person treatment.

Conclusions

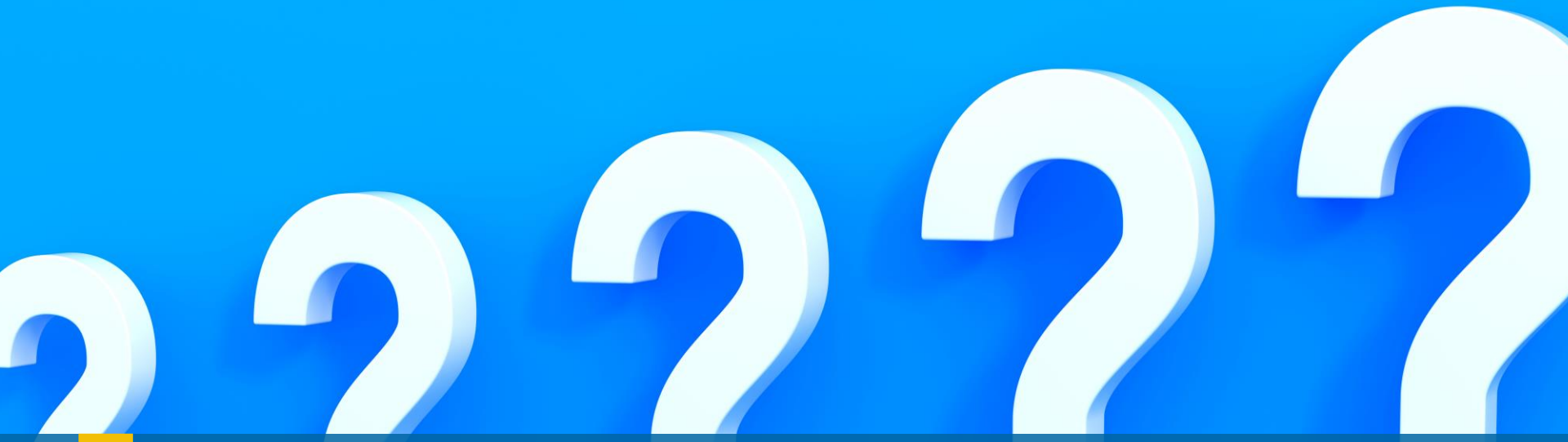
- Digital suicide prevention tools are aimed at engaging people in their own recovery.
 - They are designed to facilitate greater self-determination in terms of how tools are used in one's recovery, and which tools are used.
- Evidence in support of these tools is emerging.
 - DMHTs for suicide prevention are part of a package of care and are not necessarily meant to be used without guidance or other care systems.
- These tools are starting points and are meant to facilitate processes we know work.
 - As with good safety planning, the processes rather than the form are key.

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