



Mid-America (HHS Region 7)

MHTTC

Mental Health Technology Transfer Center Network

Funded by Substance Abuse and Mental Health Services Administration

Youth Digital Mental Health Interventions- Evidence Review and Practical Considerations

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MUNROE-MEYER
INSTITUTE

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At the time of this presentation, Miriam E. Delphin-Rittmon, Ph.D. served as Assistant Secretary for Mental Health and Substance Use at the Substance Abuse and Mental Health Services Administration (SAMHSA). The opinions expressed herein are the views of the speakers and do not reflect the official position of the Department of Health and Human Services (DHHS), or SAMHSA. No official support or endorsement of DHHS, SAMHSA, for the opinions described in this presentation is intended or should be inferred.

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The MHTTC Network uses affirming, respectful and recovery-oriented language in all activities. That language is:

STRENGTHS-BASED
AND HOPEFUL

INCLUSIVE AND
ACCEPTING OF
DIVERSE CULTURES,
GENDERS,
PERSPECTIVES,
AND EXPERIENCES

HEALING-CENTERED/
TRAUMA-RESPONSIVE

INVITING TO INDIVIDUALS
PARTICIPATING IN THEIR
OWN JOURNEYS

PERSON-FIRST AND
FREE OF LABELS

NON-JUDGMENTAL AND
AVOIDING ASSUMPTIONS

RESPECTFUL, CLEAR
AND UNDERSTANDABLE

CONSISTENT WITH
OUR ACTIONS,
POLICIES, AND PRODUCTS

Presenter Bio

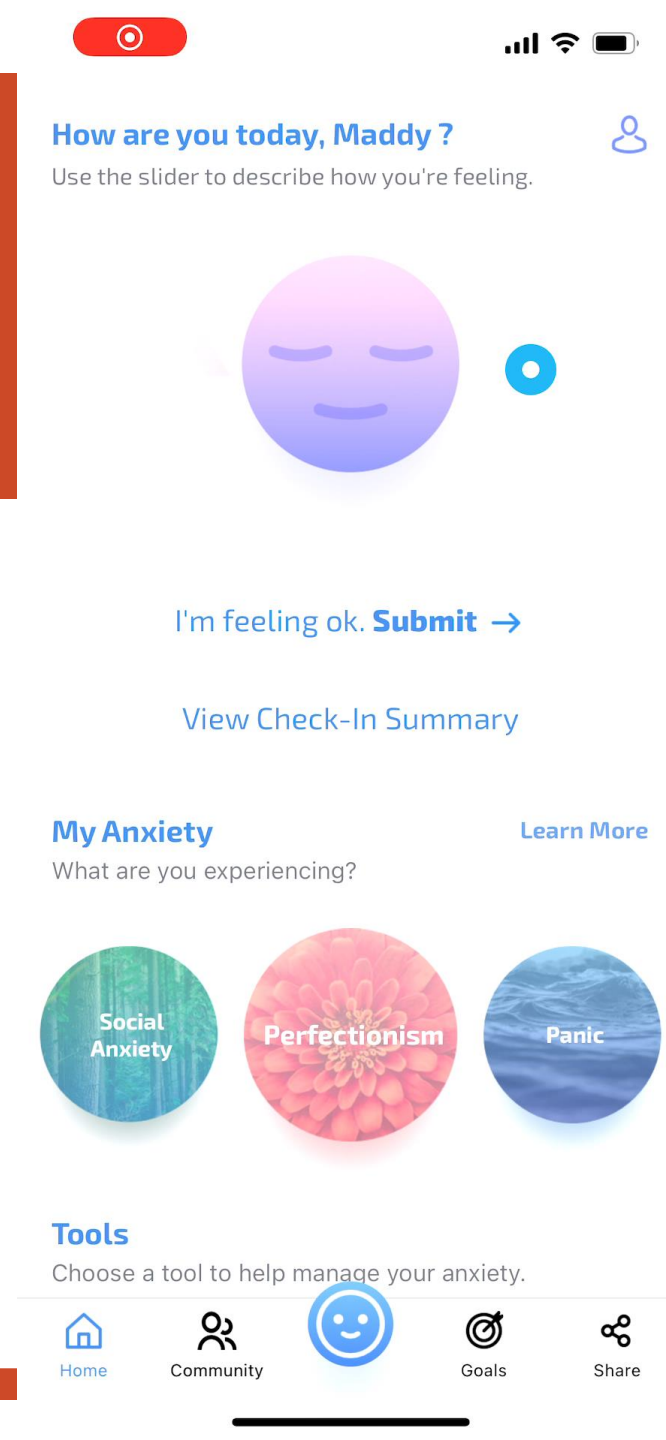


Maddy has a Master's degree in School Psychology and is a Provisionally Licensed Mental Health Practitioner in Nebraska. Maddy will be earning her PhD in School Psychology in 2024. Maddy currently works for the Munroe-Meyer Institute providing behavioral health services to youth, adolescents, and families in an integrated primary care setting. Maddy has experience providing behavioral and mental health supports to youth in schools and primary care settings in both Michigan and Nebraska. Maddy is also a team member of the Mid-America Mental Health Technology Transfer Center (MHTTC) Network, which assists mental health programs and providers in establishing evidence-based programs that are locally supported and sustainable in the Mid-America region. Maddy has been building her expertise in digital interventions for mental health for several years, which complements her other interests in trauma-informed care and equitable service provision across school and clinical settings.

Digital Mental Health Interventions (DMHIs)

What are they? What are they not?

CBT-based app example video – MindShift



Spectrum of Service Delivery Modalities

Telehealth care

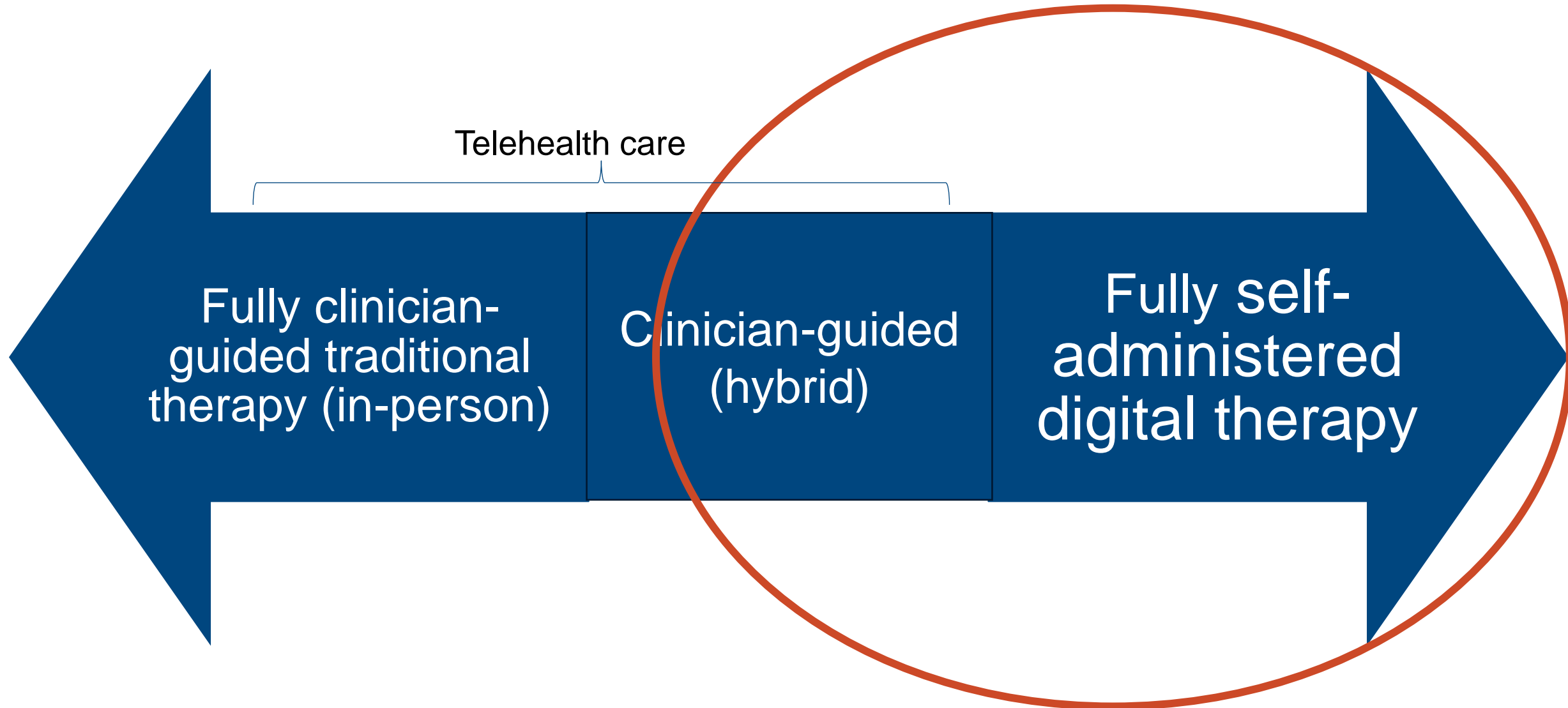
Fully clinician-guided traditional therapy (in-person)

Clinician-guided (hybrid)

Fully self-administered digital therapy

Distance-delivered care = any remote care, inclusive of telehealth and DMHIs, which can be clinician guided or self-administered

Spectrum of Service Delivery Modalities



What are DMHIs?

Web-based, therapeutic video games, mobile applications, or social network-based interventions that are publicly available

Can be used for identified mental health concerns or as preventative tool

Partially or fully self-administered, either with standardized modular/sequential components or adaptable components

Typically youth- or adolescent-facing, sometimes with shared caregiver access

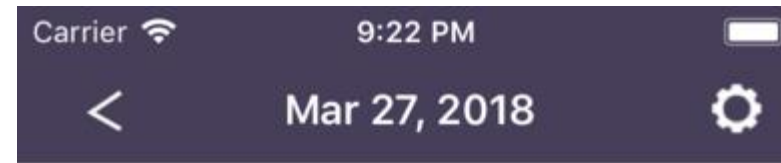
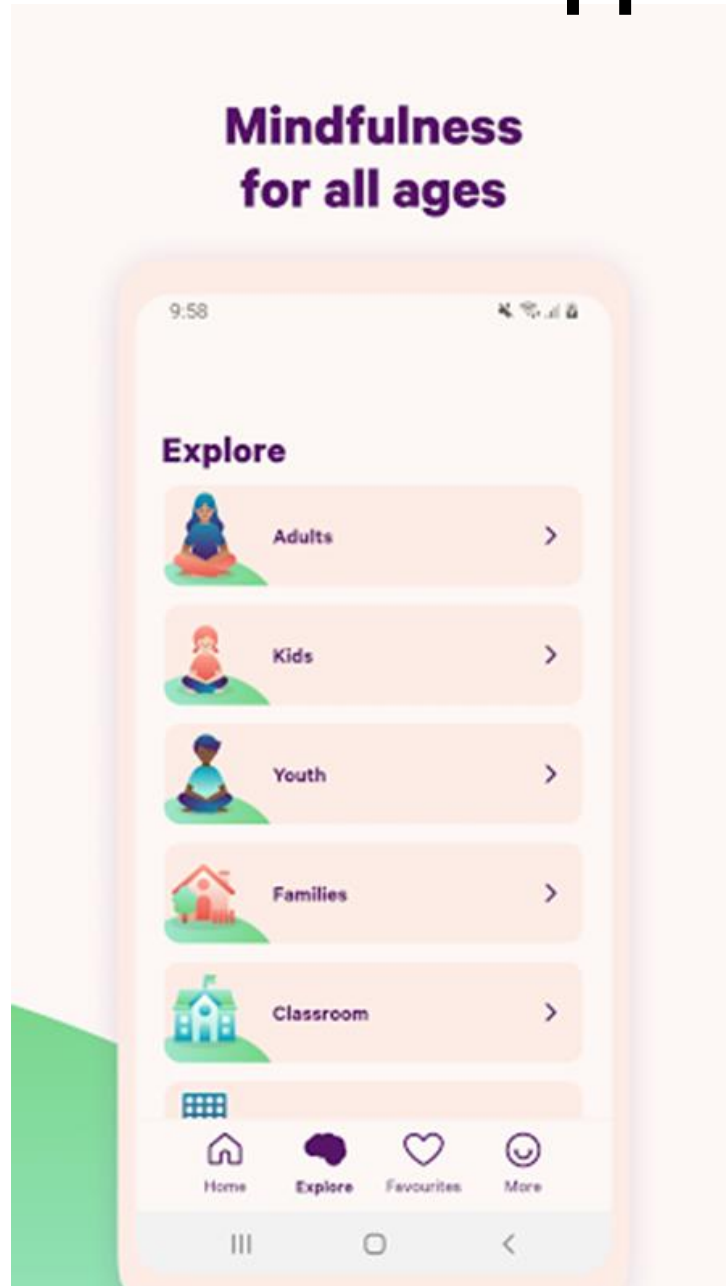
NOT “digital therapeutics” (FDA approved treatments that require a prescription), NOT telehealth, NOT digital platforms used solely for communication, NOT AI

Example DMHI: Computerized CBT (cCBT)

Goals may include:

- To transmit specific mental health information
- Facilitate peer communication
- Personal health tracking
- Cognitive training tasks and typical CBT activities translated to digital format

Examples of cCBT Apps



How are you feeling?



excited



worried



lonely



tired



peaceful



confused



irritated



sad



motivated



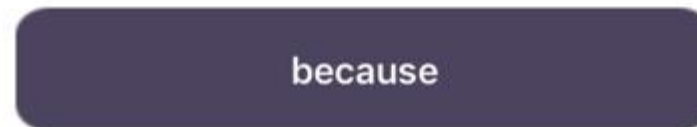
happy



mad




overwhelmed




Emoji Journal

**Connect with
people like you
who don't judge**

General Groups

 **Anonymous** is **Worried** 🙄
Family · 28m · 🌐

I love the course, but didn't think I would be so homesick. I'm struggling to stay focused - what do I do here?

 **Aardvark** is **Overwhelmed** 😓
Relationships · 28m

Seriously struggling today. Just feel like I can't catch a break 😓

 **Darkness** is **Relieved** 😌
Serious Only · My Story · 28m

Wow... just got the nicest compliment from someone I didn't even think knew my name! Just made my day.

🗨️ 6 🍷 9 Hug LOL H4U

Excel At Life[®] 5:42

PHQ Depression Screening

April 12, 2021

Over the **last 2 weeks**, how often have you been bothered by the following problem?

Little interest or pleasure in doing things

- Not at all
- Several days
- More than half the days
- Nearly every day

Question: 1/9

Koa Foundations

Excel at Life

Video example of web-based cCBT: Life Improvement for Teens (LIFT)

Thoughts and Feelings

Select the situations below to practice matching thoughts and feelings.

YOU SEE KIDS WHISPERING AND LOOKING AT YOU.

YOU HEAR A SUDDEN LOUD NOISE.

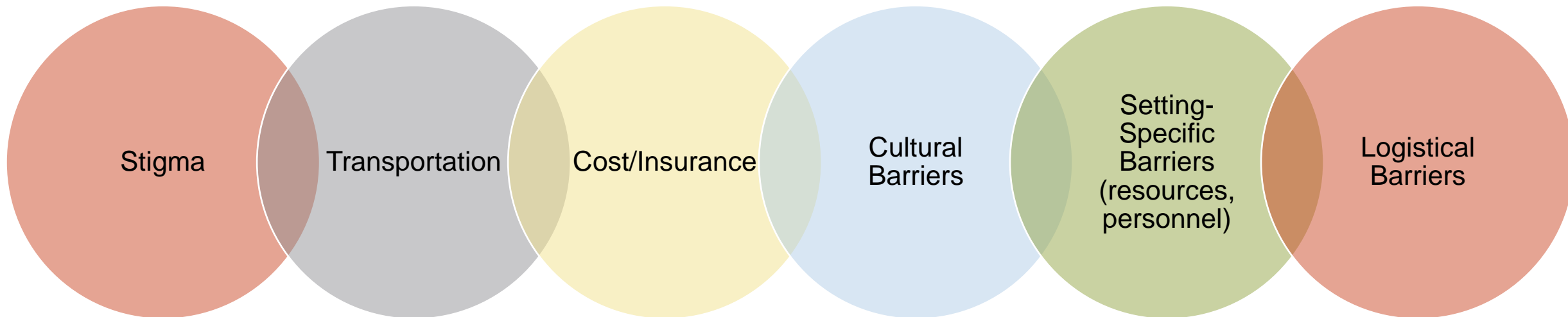
Back

Continue

The screenshot shows a user interface for a cognitive-behavioral therapy program. At the top, a teal header contains the text 'Thoughts and Feelings'. Below this, a dark grey bar contains the instruction 'Select the situations below to practice matching thoughts and feelings.' The main content area features two side-by-side cards. The left card has a teal background with the text 'YOU SEE KIDS WHISPERING AND LOOKING AT YOU.' and an illustration of an eye and two speech bubbles. The right card has a teal background with the text 'YOU HEAR A SUDDEN LOUD NOISE.' and an illustration of a lightning bolt and a circle. A mouse cursor is positioned between the two cards. At the bottom, there is a navigation bar with a 'Back' button on the left, a series of 15 circular progress indicators in the center (the 11th from the left is highlighted in teal), and a 'Continue' button on the right.

Barriers to Accessing Traditional Care

- 1 in 7 10–19 year-olds experience mental health conditions, yet are largely unrecognized and untreated (WHO, 2021)
- WHO (2020) supports digital psychotherapy modalities as a way to close the mental health gap for young people



Addressing Access Barriers: Systems-Level

- Can reduce burden placed on healthcare or mental health systems
- May be more cost-effective for systems as a more efficient use of resources
- Can span across settings as publicly available tools
- Can promote prevention and early intervention efforts

Addressing Access Barriers: Individual

- Self management of symptoms → promotes higher level of autonomy
- Potential to reduce stigma and cultural barriers
- Eliminates individual logistical considerations, insurance, and repeated costs
- Almost immediate access

DMHIs Evidence Snapshot

What do we know? What do we not know?

Publicly available DMHIs
(estimated 5000+)

DMHIs with any
research support

Few “Well
Established”
DMHIs

= large sample, treatment superior to
placebo or active control in >2
independent research settings
(Southam-Gerow & Prinstein, 2014)

Most Effective Type of DMHI: cCBT

Supportive Evidence:

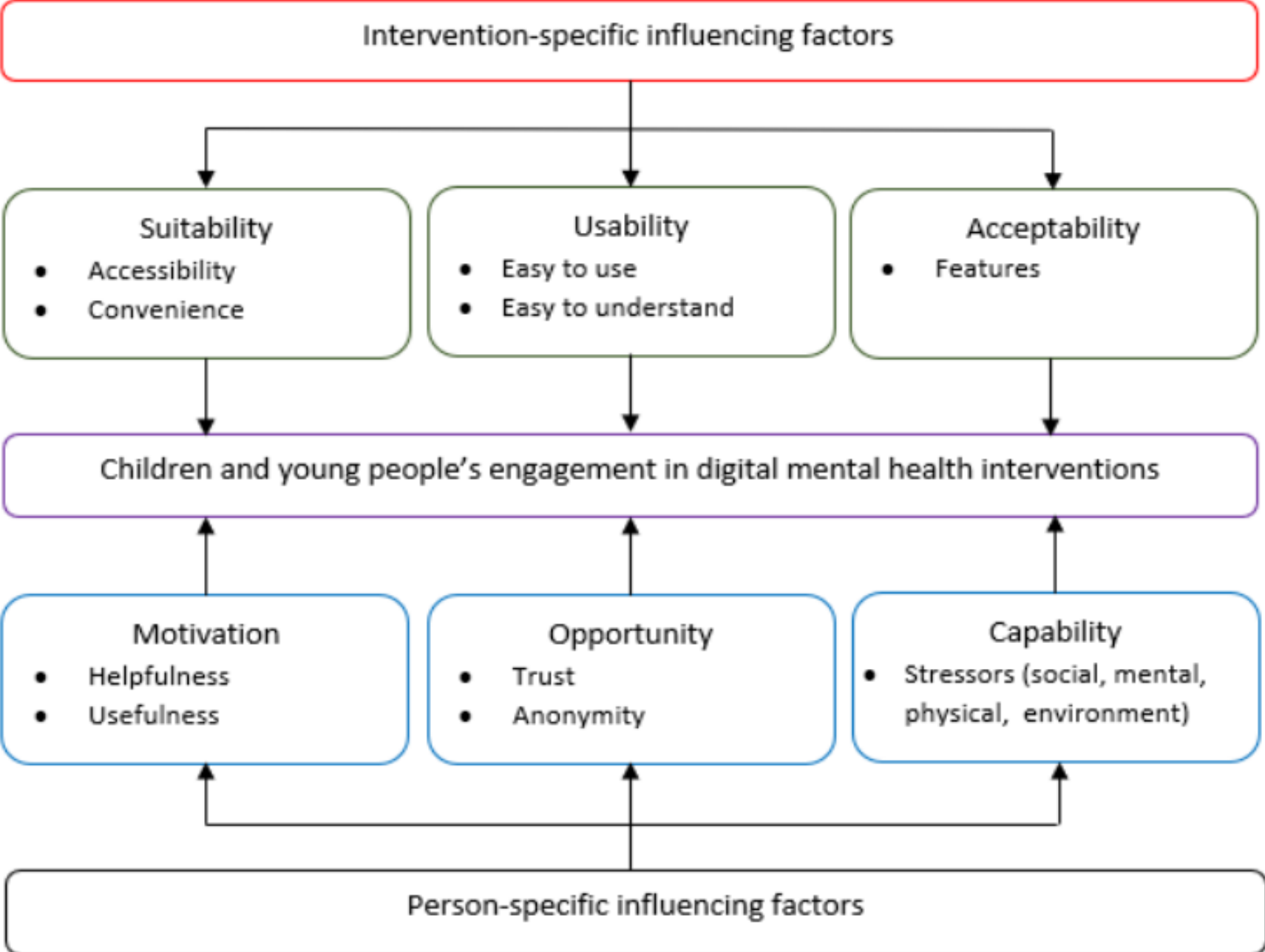
- Computerized CBT (cCBT) is effective for depression and anxiety for ages 10-24 (older age = more effective)

Most Effective DMHI: cCBT

Evidence Drawbacks:

- Unclear whether comparable to in-person care
- Limited evidence on long-term sustained effects
- Few “well established” programs with > 2 independent studies
- Therapeutic video games and social network-based interventions are lacking evidence
- Non-cCBT interventions and those targeting other clinical outcomes were inconclusive (psychosis, PTSD, eating disorders, ADHD, Autism)

Figure 2. A framework of factors influencing engagement in children and young people’s mental health digital intervention.



Engagement and Acceptability

- Young people engage with self-administered tools in different ways, often leading to noncompletion or use of the tool in a different way than intended
- **Engagement with peers, parents, or professionals strengthened DMHI effects → Lower adherence without outside engagement components**
- Some young people prefer digital modality while others prefer in-person/traditional approaches

Across the age range (10-25), young people prefer:

Videos, less text
to read

Personalization

To be
anonymous

Connecting with
peers with
similar problems

Receiving text
reminders

Relatable
situations,
characters, and
avatars

Connecting with
professional
online

Privacy concerns
addressed
ahead of time

To use mobile
device or be able
to switch
between devices



Provider Concerns

- How much external support is needed to promote engagement?
- Lack of evidence on cost-effectiveness
- Difficulty tailoring to patient and culturally adapting
- Hard to use tools to manage co-occurring disorders/crises
- Data security and accessibility

Practical Considerations: Best Practices for Implementing DMHIs

American Psychiatric Association (APA) App Evaluation Model

ACCESS & BACKGROUND

PRIVACY & SAFETY

CLINICAL FOUNDATION

USABILITY

THERAPEUTIC GOAL

Where is data stored? Who has access to or rights to the young person's data (same HIPAA protections)? Can the young person use the tool anonymously?

What platforms, devices, or operating systems are compatible with the tool?

Has the DMHI been updated recently (e.g., within last year)?

Is there research evidence of specific benefit for similar users?

Does the DMHI seem easy and intuitive to use?

Can the clinician access stored data? If not, is the youth able to use/share the data effectively with others?

Online Resources

[MIND \(uses APA Eval Guide\) – mindapps.org](http://mindapps.org)

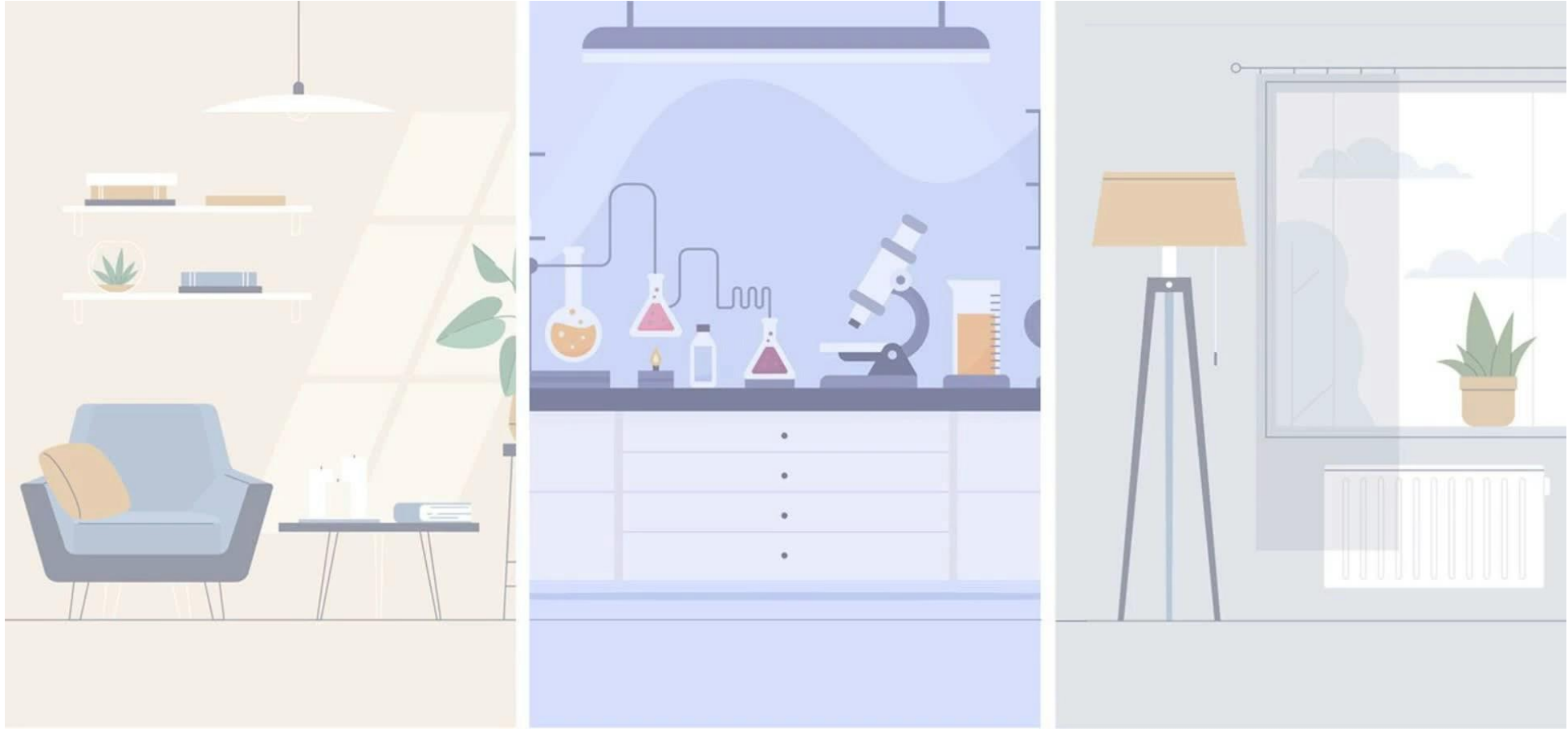
- Typically re-rated every 6 months
- Parent or provider friendly

[American Academy of Pediatrics - Family Media Plan](#)

- Can use to structure conversation with families if media use is a concern

[VA's List of Mental Health Applications](#)

[American Psychological Association – Let's Get Technical column](#)



mindapps.org Tutorial

DMHIs Within Stepped Models of Care



INTENSIVE

*not recommended to use
DMHI-only, but can use
as treatment adjunct

TARGETED or SHORT TERM

Can act as a bridge while on waitlist
Eliminates barriers for youth who is not
responding to universal care but cannot access
traditional intensive care

UNIVERSAL

Public health/prevention → DMHIs do not require a diagnosis or
threshold of symptoms for use
Can span across settings and varying stepped models of care

	Fully self-guided DMHI	Supported DMHI	Blended digital treatment (*Best Practice)	
Nature of the Intervention	Program-led intervention	Program-led intervention	Program-led intervention	Clinician-led intervention
Characteristics	The use of a digital intervention with no external support	The use of a digital intervention with support from a non-specialist practitioner (supporting adherence only)	The use of a digital intervention under the supervision of a clinician (“Supervised Digital Treatment”)	A clinician-led treatment which incorporates a digital intervention (“treatment adjunct”)
External input	None	Support from a non-specialist practitioner (to support adherence only)	Supervision from a clinician	Treatment from a clinician
Billing Insurance	Cannot bill	Cannot bill	Depends	Bill as usual

General Practical Implications

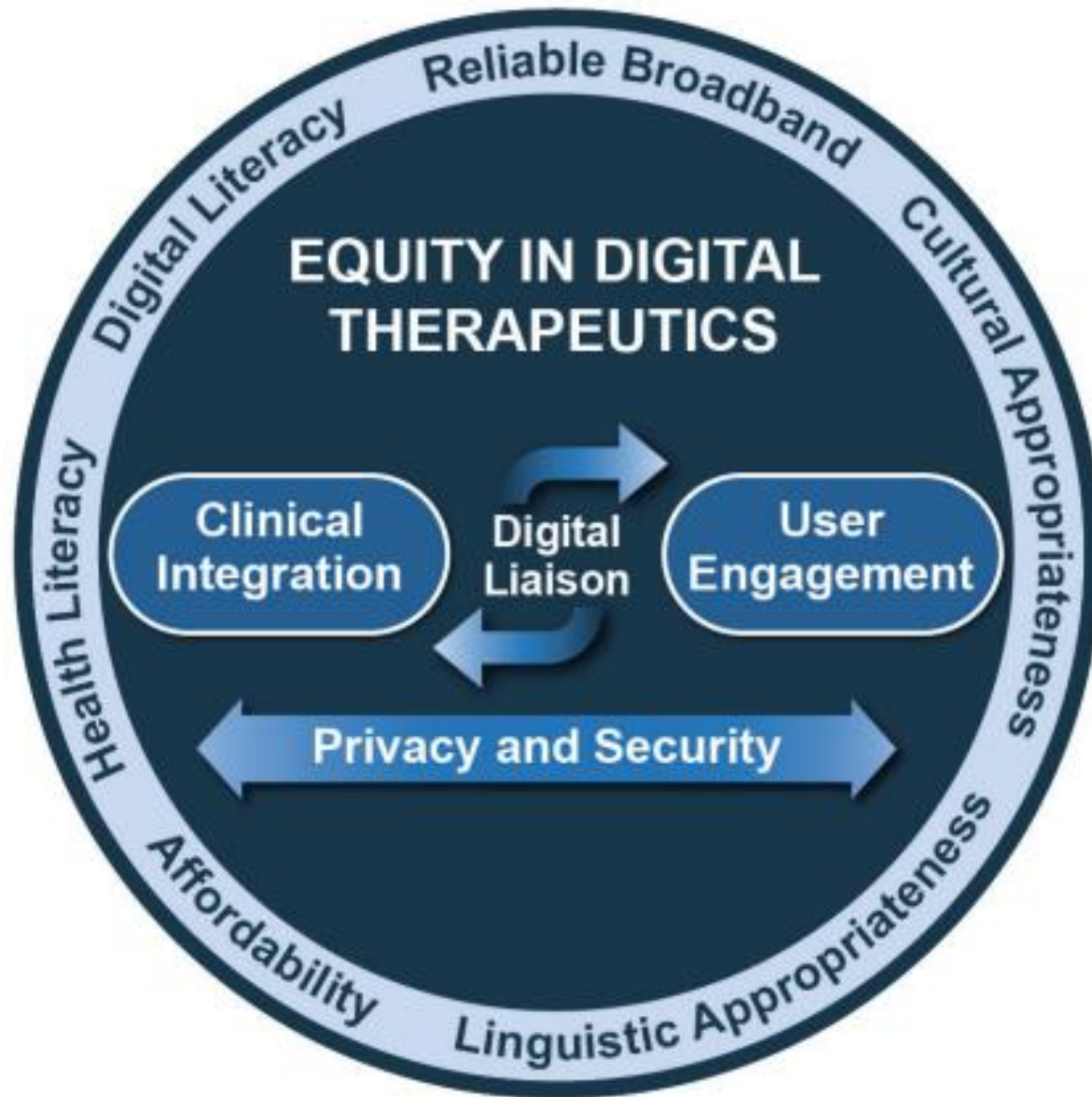
Not recommending specific tools → cCBT is most likely to be effective

Trial and become familiar with tools before recommending, and review DMHI with patient before initiating

Utilize digital inclusion strategies (mobile apps, usage of tech at public library, etc.)

Data-based approach is essential

DMHIs are NOT intended to fully replace traditional therapy



Weighing Costs and Benefits

“Many of these apps aren’t as good as therapist-led treatments, but they fill a separate need... Therapists can make large changes but reach a small number of people. A lot of the promise of digital mental health apps is that we can now also reach larger numbers of people, even if some of those effects are small. The combination of the two is how we move the needle at the population level.” (APA Monitor on Psychology, 2021)

Consider Negative or Adverse Effects

“Someone might download these apps, not get better, and think, ‘There’s nothing out there that can help me...They may avoid therapy or delay treatment as a result’
(APA Monitor on Psychology, 2021)

Your Next Steps

1. Discuss with your team to develop buy-in and discuss whether to use DMHIs at the universal or individual level in your setting
 - Your organization may need to develop infrastructure prior to implementation
 - E.g., designate staff contact if patient calls with DMHI question, developing workflows for who recommends DMHIs and when
2. Identify young people who might benefit.
 - On a waitlist, would benefit from more scaffolded reinforcement of skills in between sessions, motivated to change
 - Transportation, stigma, or cost/insurance barriers
 - Mild/moderate symptoms, not severe
3. Review the evidence snapshot and available programs for the population you serve and try tools yourself first!

Your Next Steps, continued

4. Connect them to the resource and determine the level of involvement others will have while they complete the DMHI

- Informed collaborative consent process about who will be involved and have access to their information

5. Implement and regularly monitor progress!

- Clinician may not be able to monitor in-vivo
- Develop contingency plan if progress worsens or if crises arise

Setting-Specific Recommendations and Examples

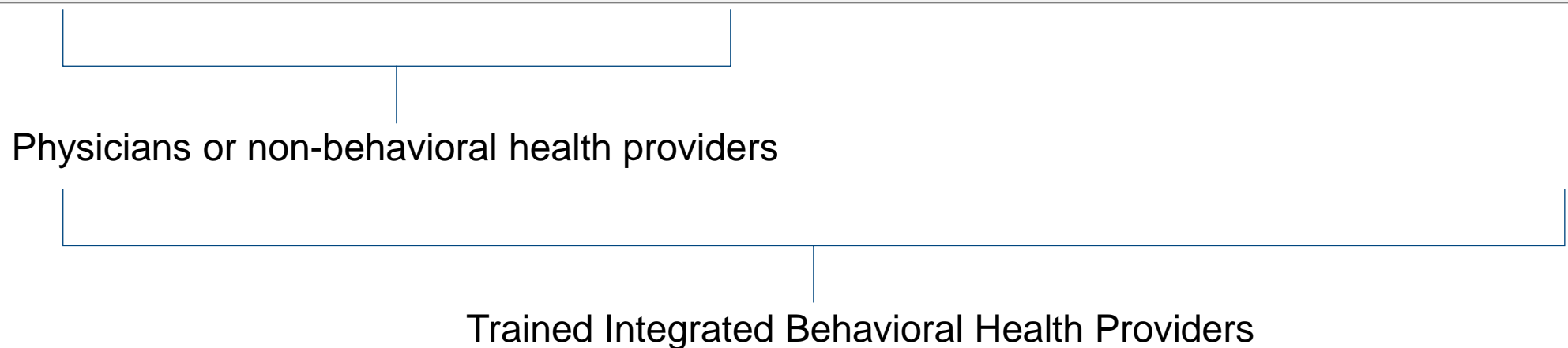
Integrated Primary Care/Medical Settings

- Blended approach: best practice if behavioral health provider is integrated
- Sequential approach: can use to manage long waitlist for an integrated behavioral health provider
 - Physician refers directly to self-guided DMHI first
→ if not responding then increase dosage (referral to behavioral health or community referral)

Integrated Primary Care/Medical Settings

- Referral considerations:
 - Physicians may not always refer appropriate patients (under or over-refer) for DMHIs
 - Can link referral to DMHI to cutoff score of routine tools (e.g., PHQ-9 between moderate and severe cut scores)
- More to come within MHTTC Integrated Primary Care DMHI Toolkit! (coming May-June 2024)

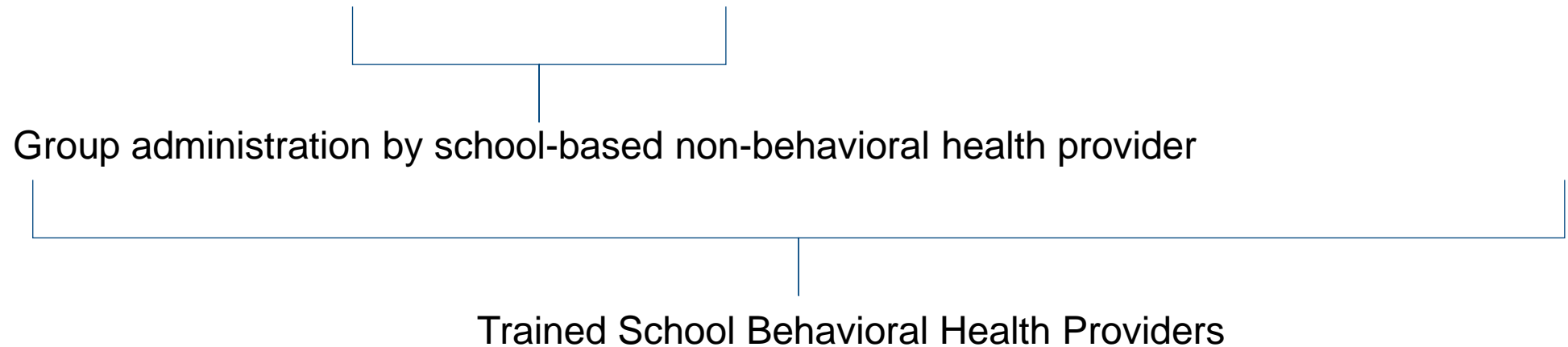
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School Settings

- Can allow youth to use school-owned technology
- Behavioral health providers in schools can use DMHIs in any modality (blended, sequential, self-administered, etc.)
- Group administration can improve reach of DMHIs, adherence, and allocation of staff resources
- More to come within MHTTC School DMHI Toolkit! (coming May-June 2024)

	Fully self-guided DMHI	Supported DMHI	Blended digital treatment	
Nature of the Intervention	Program-led intervention	Program-led intervention	Program-led intervention	Clinician-led intervention
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External input	None	Support from a non-specialist practitioner (to support adherence only)	Supervision from a clinician	Treatment from a clinician



Final Takeaways

- Constantly evolving area → this presentation may not be fully representative of entire current research base
- Many DMHIs make unvalidated claims about effectiveness
- **Do not use a DMHI if it does not feel appropriate or feels outside of your scope**
- **DMHIs are not a replacement for traditional therapy!**



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- [One Mind PsyberGuide | A Mental Health App Guide](#)
- [Mobile Health Index and Navigation Database, App Evaluation Resources from the Division of Digital Psychiatry at BIDMC \(mindapps.org\)](#)
- [Let's Get Technical \(apaservices.org\)](#)
- [AAP Media Plan \(healthychildren.org\)](#)