



Central East (HHS Region 3)

**MHTTC**

Mental Health Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration

# Landscape of Digital Peer Support Services Across the Globe

**Karen L. Fortuna, PhD, MSW**  
**Assistant Professor of Psychiatry**  
**Dartmouth College**

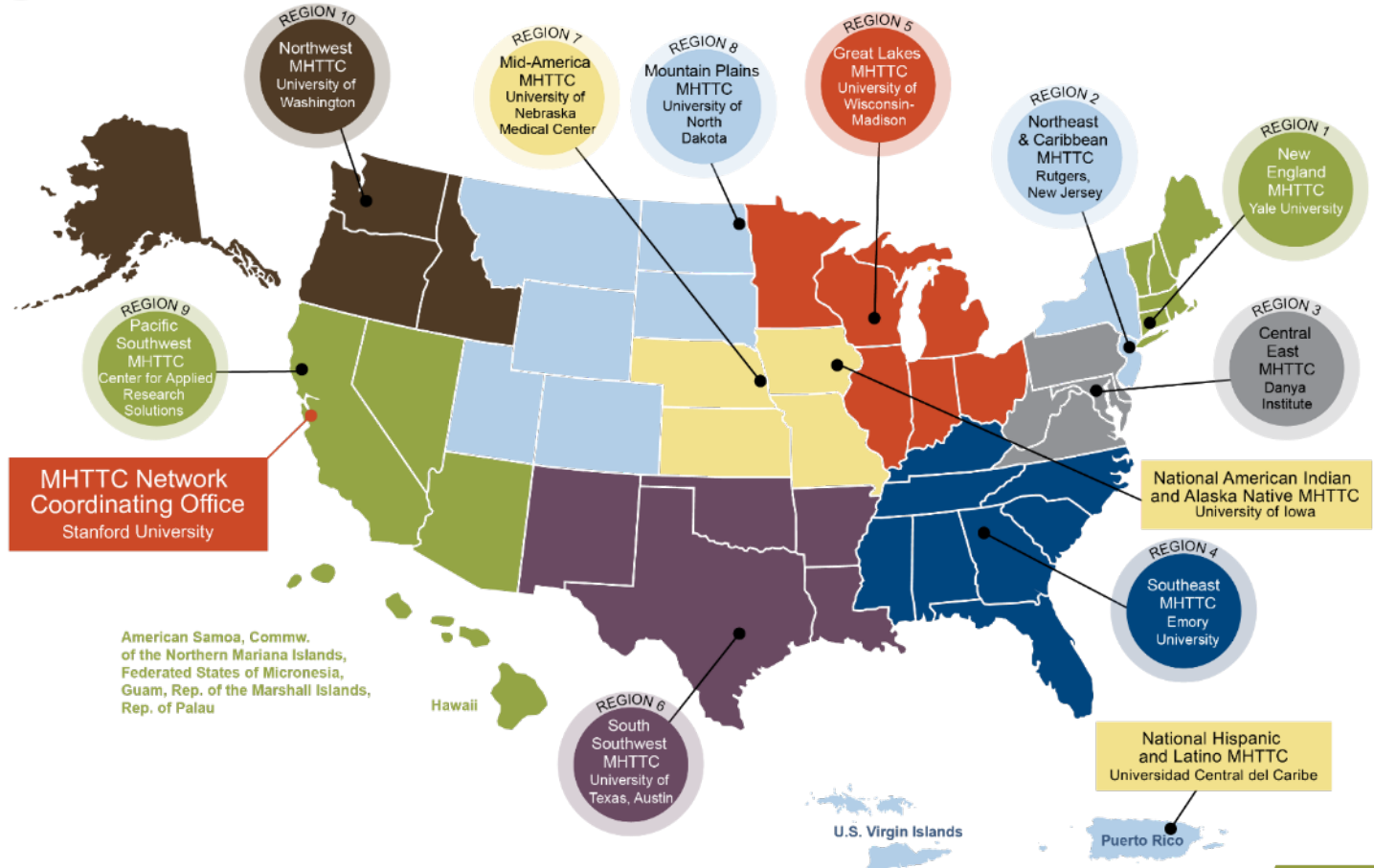
# MHTTC Network



**MHTTC**

Mental Health Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration

MHTTC Network



Central East (HHS Region 3)

**MHTTC**

# Central East MHTTC Goals

## Funded by SAMHSA to:

- **Accelerate** the adoption and implementation of mental health related evidence-based practices
- **Heighten** the awareness, knowledge, and skills of the behavioral health workforce
- **Foster** alliances among culturally diverse practitioners, researchers, policy makers, family members, and consumers
- **Ensure** the availability and delivery of publicly available, free of charge, training and technical assistance

# Central East Region

## HHS REGION 3

Delaware

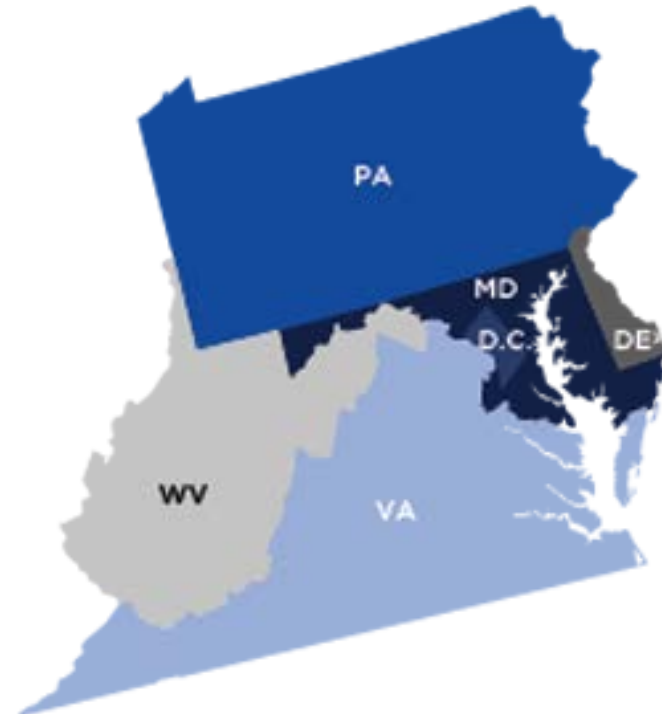
District of Columbia

Maryland

Pennsylvania

Virginia

West Virginia



# Grant Support

- Research support is provided by the National Institute of Mental Health (K01 MH117496), Patient-Centered Outcomes Research Institute (NCT03966872), the NARSAD Young Investigator Grant from the Brain and Behavior Foundation (#26800).

# Agenda

- History of Digital Peer Support
- Essentials of Digital Peer Support
- Modes of Digital Peer Support Delivery
- Benefits for Peer Support Specialists and Service Users
- Reach and Uptake of Digital Peer Support
- Advancing the Science of Digital Peer Support

# Peer Support: An Essential Recovery Service

- Peer support is recognized globally as an essential recovery service for people with mental health conditions (World Health Organization, 2017).
- Peer support services have been instrumental in augmenting traditional mental health treatment.
- With the influx of digital mental health services changing the way mental health care is delivered, peer support specialists are increasingly using technology to deliver peer support (Fortuna et al., 2018).

Fortuna, et al. Smartphone ownership, use, and willingness to use smartphones to provide peer-delivered services: Results from a national online survey. *Psychiatric Quarterly* 2018; **89**(4): 947-56.

World Health Organization. Promoting recovery in mental health and related services. Geneva: World Health Organization, 2017.

# National Survey of Peer Support Specialists Ownership and Use of Technology

**N=267 from 38 states**

## **Gender**

Female 73%; n = 195

## **Age range**

21-77 years (50.9 (SD = 12) years

## **Race**

Caucasian 79.8% (n = 213)

## **Peer Smartphone Ownership**

94.8% (n = 253)

93% of peers are willing to use smartphones to promote health behavior change with service users

83% of peers are willing to text message service users to promote health behavior change.



Fortuna, et al. (2018). Smartphone Ownership, Use, and Willingness to Use Smartphones to Provide Peer-Delivered Services: Results from a National Online Survey. *Psychiatric Quarterly*, 89(4):947-956.



# History of Digital Peer Support

- 2005** First peer-reviewed published article in the United States;
- 2012** Digital peer support expands to Australia;
- 2016** Digital peer support expands to Europe (Italy & Denmark);
- 2017** Digital peer support expands to Asia (Japan);
- 2018** First older adult digital peer support program (PeerTECH);
- 2020** US begins to explore public reimbursement for digital peer support;
- 2020** Bringing Recovery Supports to Scale Technical Assistance Center Strategy (BRSS TACS) Expert Panel on Digital Peer support (April)

*\*Data was derived from the peer-reviewed literature*

Central East (HHS Region 3)



MHTTC

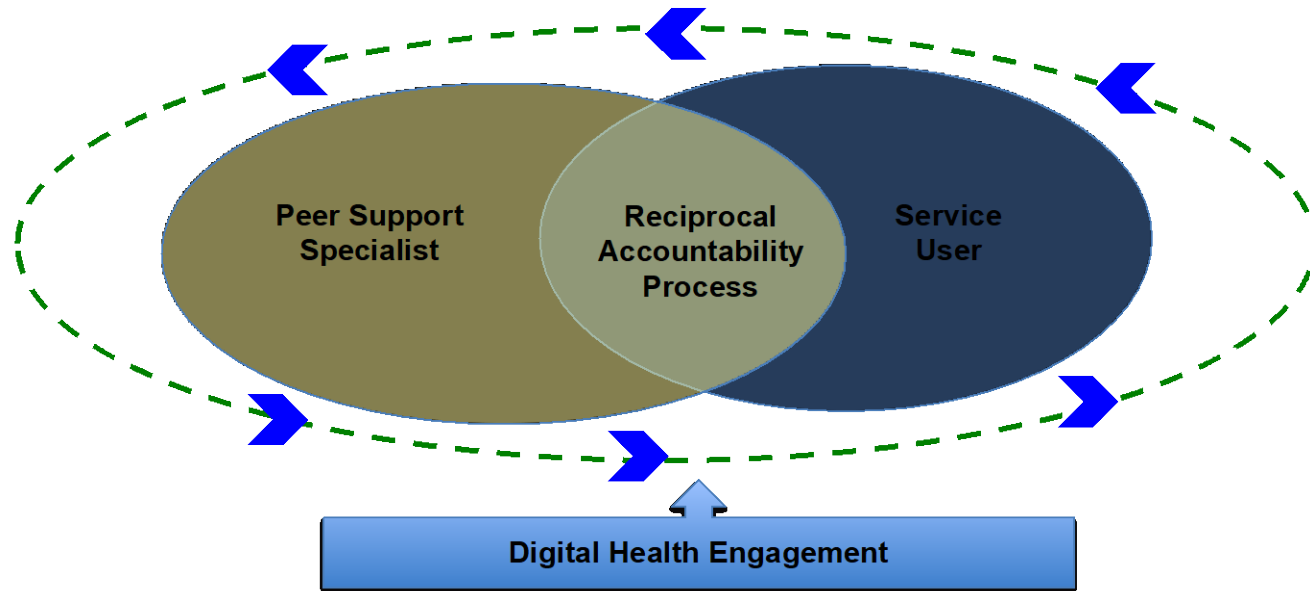
# The Essentials of Digital Peer Support

- Reciprocal accountability includes a system wherein all persons involved hold one another accountable for specific commitments and activities in order to achieve the goals and objectives, which bring them together.
  - Peer support specialists and service users mutually help and learn from each other and hold each other accountable in their personal recovery.
  - This is contrasted with relationships in therapy, whereby therapists directly influence service users' recovery but are not expected to receive personal benefit from the relationship.

Fortuna, et al. (2019). Peer support: A human factor to enhance engagement in digital health behavior change interventions. *Journal of Technology in Behavioral Science*, 4(2): 152–16.

# The Essentials of Digital Peer Support

**Peer Support: A Human Factor to Enhance Engagement in Digital Health Behavior Change Interventions Among People with a Lived Experience of a Serious Mental Illness**

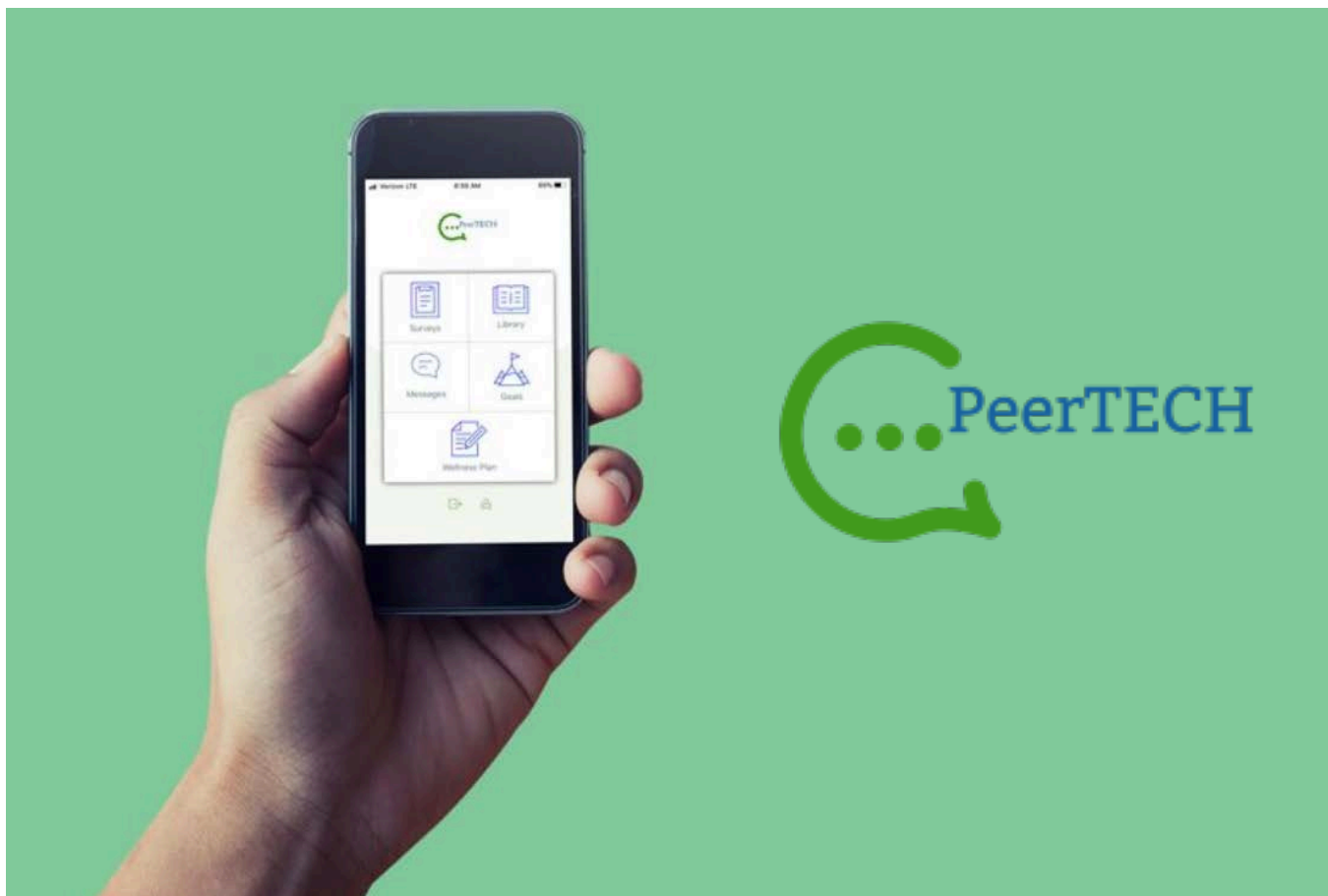


Peer support specialists and service users mutually help and learn from each other and hold each other accountable in their personal recovery

Goal Setting	Task Agreement	Bond	Peer Support Moderators
--Autonomy --Flexible expectations --Performance Monitoring	-Shared lived experience ---Credibility	-Authentic human bonding ---Familiarly ---Similarity ---Trust	-Hope -Sense of belonging

Fortuna, et al. (2019). Peer support: A human factor to enhance engagement in digital health behavior change interventions. *Journal of Technology in Behavioral Science*, 4(2): 152–16<sup>13</sup>

# Peer-Led or Co-Produced Technologies



# Peer-Led or Co-Produced Technologies

## Enhancing Standards and Principles in Digital Mental Health With Recovery-Focused Guidelines for Mobile, Online, and Remote Monitoring Technologies

Karen L. Fortuna, Ph.D., M.S.W., Robert Walker, M.S., C.O.A.P.S., Daniel B. Fisher, M.D., Ph.D., George Mois, L.M.S.W., Stephanie Allan, M.A., Patricia E. Deegan, Ph.D.

Before the 1970s, the notion that people diagnosed as having a mental health condition could manage symptoms and return to work, school, and a full life in the community was not widespread. Through advocacy efforts by people with lived experience of a mental health condition, recovery-focused care has become a fundamental part of mental health service delivery across the globe (1) and is considered a complementary approach to traditional biomedical psychiatric care (2).

*Digital mental health interventions should embrace multiple dimensions of health.* People with lived experience of a mental health condition commonly present with other difficulties such as health conditions, substance use issues, and lack of social support—all of which affect overall health. Mental health recovery is not a singular task of monitoring and addressing psychiatric symptoms; rather, recovery involves addressing the complex interaction between an individual's biological, psychological, and sociocultural

# Systematic Review Methods

- We included available high-quality electronic reference databases beginning in 1946 until March 2019: CINAHL, Cochrane Central, PubMed, Medline, PsycINFO, and Web of Science.
- Each search term was entered as a keyword and assigned the corresponding Medical Subject Heading term.
- To identify articles not included in our original search, we reviewed reference lists of published studies that met inclusion criteria, prior systematic reviews, and in June 2019, we searched Google Scholar using different combinations of the search terms.

# Systematic Review Methods

- **Participants:** Individuals age  $\geq 18$  years with either a lived experience of schizophrenia spectrum disorder (schizophrenia or schizoaffective disorder) or bipolar disorder.
- **Intervention:** Peer-supported digital health interventions including peer-delivered interventions, peer augmented interventions, and peer-to-peer social media interventions.
- **Comparisons:** Studies did not need to have a comparison condition.
- **Outcomes:** The primary outcomes of interest included those related to feasibility, acceptability, and effectiveness.
- **Study design:** We included randomized controlled trials, pre-post designs with experimental or quasi-experimental comparison condition, qualitative studies, and secondary data analyses if outcomes were relevant to the feasibility, acceptability, and/or effectiveness of peer-supported digital health interventions. Research protocols, letters to the editor, review articles, pharmacological studies, theoretical articles, and articles that were not peer-reviewed were excluded from this systematic review.

# Digital Peer Support Technology Platforms

- 24 digital peer support programs exist across the globe in the peer-reviewed literature (30 studies identified)
- **Technology platforms**
  - Smartphone apps (Android and Apple)
  - Social media (i.e., Facebook)
  - Websites (i.e., youtube)
  - Listserv
  - Wearables (i.e., FitBit)



# Digital Peer Support Technology Features

- Technology features included:
  - Live/synchronous telephone peer support
  - Live/synchronous peer support with guided evidence-based psychotherapy chat via Google docs
  - Asynchronous and synchronous individual and group messaging
  - Asynchronous audio and videos
  - Asynchronous educational website modules
  - Exercise monitoring (i.e., FitBit, Nike fuelbands)

# Digital Peer Support Technology Features

- Technology features do NOT include:
  - Artificial intelligence;
    - Natural language processing
    - PeerBots
    - Avatars;
  - Virtual reality emersion;
  - Gaming environment;
  - Ecological momentary assessments;
  - Digital phenotyping;
  - Nanotechnology; and
  - Motion mapping

# Digital Peer Support Services Delivery Designs

- Peer-to-peer networks ( $N=14$ );
- Peer-delivered intervention supported with technology ( $N=11$ ); and
- Synchronous technology and asynchronous technology ( $N=5$ ).

# Promising Evidence for Biomedical Outcomes

- Peer-to-peer networks combined with evidence-based practices predominately included biomedical outcome measures;
- Peer-to-peer networks combined with evidence-based practices were related to positive changes such as reductions in psychiatric symptoms, maladaptive social cognitions, and body weight.

# Null Results: Peer-to-Peer Networks

- Little evidence peer-to-peer networks without inclusion of peer training impacts outcomes.
- Peer-to-peer networks were found to be feasible and acceptable, researchers found no differences between the experimental and control groups on any of the outcomes.
- Peer-to-peer networks may need the inclusion of peer support training to produce program effects.

# Promising Evidence for Biomedical and Psychosocial Outcomes

- Peer-delivered and technology-supported programs demonstrated the most promising evidence for both self-reported biomedical and psychosocial outcomes.
  - Hope, empowerment, social support, quality of life (studies showed non-statistically significant improvement), recovery, medication adherence, psychiatric self-management, neurocognitive remediation (studies showed statistically significant improvement).

# Asynchronous Technologies Produced Modest Evidence

- Participants who completed the asynchronous technologies interventions reported statistically significant benefits in personal recovery.
- Qualitative findings found participants felt “inspired,” “knowing I’m not alone,” and “believing recovery is possible”.

Fortuna,, et al. [in press]. Systematic Review of Peer-Supported Digital Mental Health Interventions for People with a Lived Experience of a Serious Mental Illness. *JMIR: Mental Health*.

# Synchronous Technologies Produced Low Engagement

- Peer support was facilitated through the telephone combined with internet-based modules accessible at VA clinic kiosks.
- Intervention appeared feasible—yet only 31% of enrolled participants completed the intervention. Participants who attended at least one session of the intervention, whose weight was in the obese range and who completed synchronous technology components reported statistically significant benefits.
- An intent-to-treat analysis of all participants found that the synchronous technology intervention increased physical activity.



# Implementation and Dissemination Benefits of Digital Peer support

- Digital peer support is expanding the reach of peer support services;
- Increasing the impact of peer support without additional in-person sessions;
- Engaging service users in digital mental health outside of clinical environments.

# Community Participation in Digital Peer Support Development

- Half of the studies (53%) included community engagement in intervention development.
- Studies with the highest level of digital health engagement employed active community engagement methods or a combination of active and consultative community engagement methods to develop digital peer support interventions.

# Digital Peer Support May Improve the Lives of People with SMI

- Most of the studies established support for the feasibility, acceptability, and preliminary effectiveness of the interventions with regard to enhancing participants' functioning, reducing symptoms, and improving program utilization.

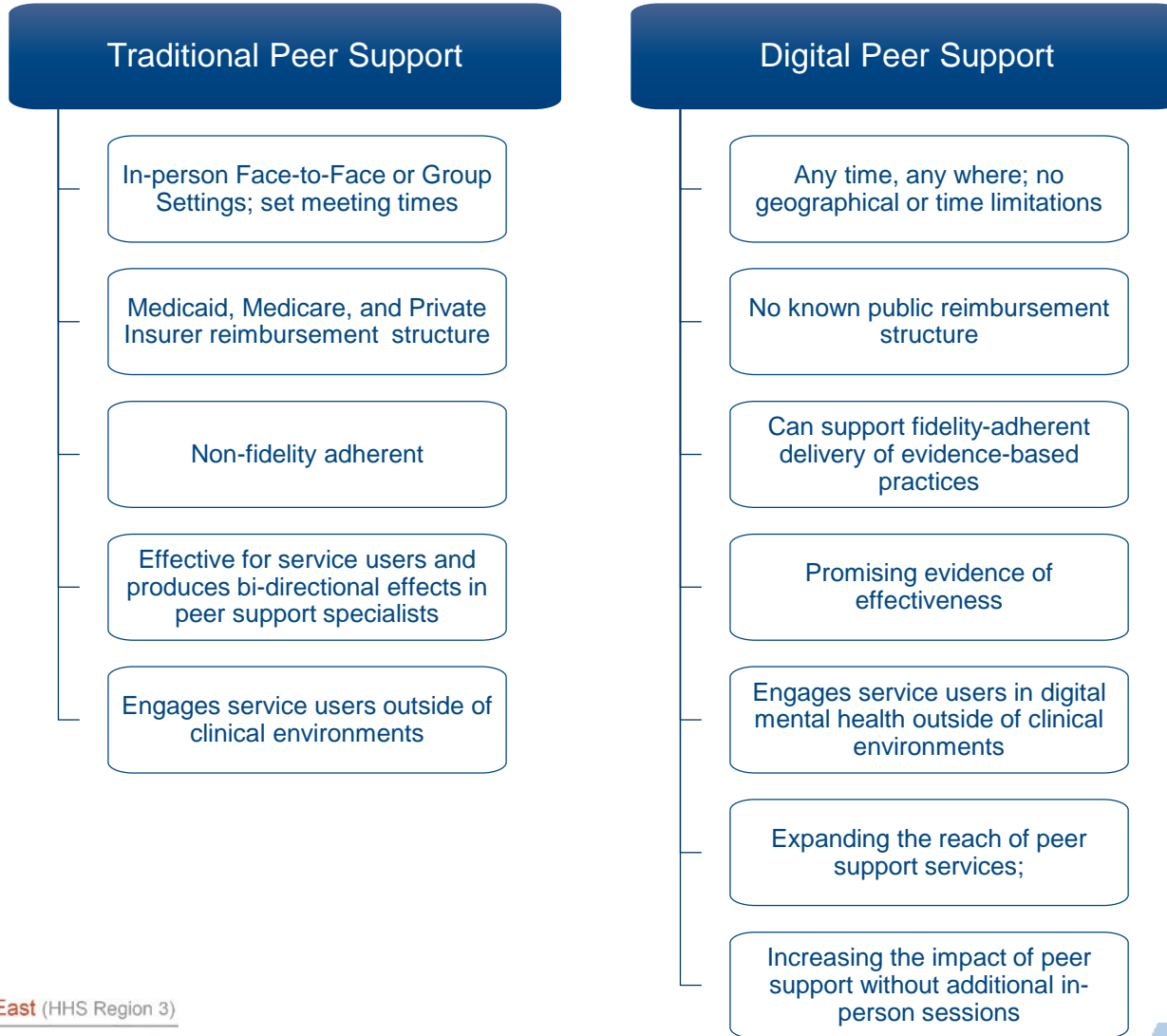
# Limitations

- Does not include gray literature;
- Lack of longitudinal outcomes identified in the included studies, which did not allow us to assess the impact of digital peer services over time; and
- We cannot reliably differentiate which specific aspects of digital peer support or other health intervention components contributed to positive changes in biomedical and psychosocial outcomes.

# Advancing the Science of Digital Peer Support

- Similar to other fields in psychiatry, digital health engagement remains an issue. Community-engaged in digital peer support development may impact engagement.
- Need for additional proof-of-concept studies;
- Need for examination of digital peer services delivery strategies in combination with high-levels of community engagement, as well as further evidence of program effectiveness across high, middle, and low-income countries.

# Traditional Peer Support vs. Digital Peer Support



# Appreciation



# Contact Us



Central East (HHS Region 3)

MHTTC

Mental Health Technology Transfer Center Network  
Funded by Substance Abuse and Mental Health Services Administration

*a program managed by*



[Central East MHTTC website](#)

[Oscar Morgan](#), Project Director

[Danya Institute website](#)

[Email](#)

240-645-1145

*Funding for this presentation was made possible by SAMHSA grant no. 3H79SM081785. The views expressed by speakers and moderators do not necessarily reflect the official policies of HHS; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.*