#### **TeleBehavioral Health 2025 Training Series**

Behavioral Health Institute (BHI) Harborview Medical Center Website: <u>https://bhinstitute.uw.edu</u> Email: <u>bhinstitute@uw.edu</u> Northwest Regional Telehealth Resource Center (NRTRC) Website: <u>https://nrtrc.org</u> Email: <u>info@nrtrc.org</u>

April 18, 2025





HARBORVIEW

# Behavioral Health Institute (BHI)

Training, Workforce and Policy Innovation Center

The **Harborview Behavioral Health Institute** (BHI) is a program of Harborview Medical Center that is dedicated to advancing innovation, research and clinical practice to improve community mental health and addiction treatment. The BHI also serves as a resource for the advancement of behavioral health outcomes and policy, and supporting sustainable system change.

The BHI brings the expertise of Harborview Medical Center/UW Medicine and other university partners together to address the challenges facing Washington's behavioral health system, through innovation and improving access to effective behavioral health care. BHI pillars include:

- Clinical Services
- Research and Program Evaluation
- Training, Policy and Workforce Development
  - Expanded Digital and Telehealth Services and Training





# Northwest Regional Telehealth Resource Center (NRTRC)



Telehealth Technical Assistance Center

The NRTRC delivers telehealth technical assistance and shares expertise through individual consults, trainings, webinars, conference presentations and the web.

Their mission is to advance telehealth programs' development, implementation and integration in rural and medically underserved communities.

The NRTRC aims to assist healthcare providers, organizations and networks in implementing cost-effective telehealth programs to increase access and equity in rural and medically underserved areas and populations.

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# **Speaker Disclosures**

None of the series speakers have any relevant conflicts of interest to disclose.

# Planner disclosures

The following series planners and team have no relevant conflicts of interest to disclose:

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Any information provided in today's talk is not to be regarded as legal advice. Today's talk is purely for informational purposes.

Please consult with legal counsel, billing & coding experts, and compliance professionals, as well as current legislative and regulatory sources, for accurate and up-to-date information.



#### We gratefully acknowledge the support from













UW Medicine King County

#### Non-Standard Circuits: TeleBH care for Traumatic Brain Injury and Neurodiverse Patients

Jennifer M. Erickson, DO Assistant Professor University of Washington

### Outline

- Briefly review the current management and treatment of TBI
- Review the literature about telemedicine in TBI
- Briefly review the current management and treatment of autism spectrum disorder
- Review the literature about telemedicine and autism spectrum disorder
- Review important considerations for both of these populations



# The <u>current</u> state of the continuum of care for TBI

- Emergency services
- ICU/Critical Care (Neuroscience Critical Care Unit)
- Acute Medical / SurgicalCare
- General Acute Rehab Care
- Inpatient Psychiatric Services
- Outpatient Services
  - Neuropsychiatry Brain Injury program
  - Outpatient NeuroRehabilitation Program

Slide custody of Durga Roy, MD

BI-BH FCHC

#### Treatment

PharmacologicBehavioralPsychotherapy





#### **Patient Barriers**

- Cognitive impairment
- Complex treatment regiment
- Limited mobility
- Symptoms presentation and needs vary widely
- Limited public awareness of TBI

Setnik, L., & Bazarian, J. J. (2007), Brain injury, 21(1), 1-9 Flanagan SR, Bell K, et al. (2012) Brain Injury 12(2).

#### **Provider Barriers**

- Limited time for complex patients
- Complex coordination care needs
- Limited knowledge and experience with TBI and TBI related concerns
- Limited access and support in rural communities

Flanagan SR, Bell K, et al. (2042) Brain Injury 12(2).

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#### **Provider Barriers**

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ГВІ-ВН ЕСНО

- Limited time for complex patients
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Jukkala AM, Henly SJ, et al. RJ Contin Educ Nurs. 2008 Rourke JT, Incitti F, et al. Can Fam Physician. 2003

# **Risks vs Benefits of Telemedicine**

Risks?

- No clear studies to date that show risks of telemedicine
- Looming data privacy questions

Totten et al. Telehealth for Acute and Chronic Care Consultations. AHRO Sept 2018

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# **Risks vs Benefits of Telemedicine**

Benefits?

- Literature overall is not good quality
- May decrease ICU mortality & length of stay
- May increase appropriate transfers from the ED
- Clinical outcomes are similar between telemedicine and in person visits in the outpatient setting and patients are generally satisfied with them
- Psychiatry specifically has higher treatment adherence and patient satisfaction

Totten et al. Telehealth for Acute and Chronic Care Consultations. AHRQ Sept 2018 TBI-BH ECHO

#### TBI & telemedicine

- Specialist
- Patients
- Primary care providers



# Specialist

Direct consults for psychiatry & care coordination

- Diagnosis and outcomes are accurate and comparable to inperson visits.
- Tele-rehabilitation was found to be effective via phone and feasibility of Internet based interventions is supported

• Psychotherapy

- PST
- BA

• CBT

Sheeran T, Dealy J, Rabinowitz T. Geriatric telemental health.Elsevier, New York,

NY. Hilty et al. Telemedicine Journal and e-Health. 2013;19:444-454. Archer, K. R., Coronado, R. A., et al. (2015). *Trials*, *16*(1), 244. Ownsworth et al, J Head Trauma Rehabilitation. 2018 Fann, J. R., et al. (2015). *Journal of neurotrauma*, 32(1),**45**,**571**, ECHO

#### Patients

Appointment & medication reminders
Decreases travel?
Decreases patient cost?

Pavliscsak, H., et al. (2015). *Journal of the American Medical Informatics Association*, 23(1), 110-118. Little, J. R., et al. (2017). *Military medicine*, *183*(3-4), e148-e156. Totten et al. Telehealth for Acute and Chronic Care Consultations. AHRQ Sept 2018



#### **Providers**

In general:

- Patients and providers generally satisfied
- Providers concern > patients
- ≥ UC ≈ Face-to-Face (FTF)
- ↓ cancellations (3.5% vs 4.8%), ↓ no shows (4.2% vs 7.8%)
- Generally  $\downarrow$  cost?

Totten et al. Telehealth for Acute and Chronic Care Consultations. AHRQ Sept

Hubley et al. (2016). Review of key telepsychiatric orreginant ECHO

#### Telephones & TBI

- Telephones
  - Bell et al 2005. N = 171 discharged from acute rehab. 1 yr later those with scheduled phone calls faired better on scales & functional status
  - Fann et al 2015 N = 100. In-person and Telephone CBT were acceptable and feasible



#### Other tech & TBI

- Smith et al. 2022
  - Scoping review
  - 40 studies identified
    - Telephones, short messages, smartphones, videoconferencing, digital assistants, and custom devices
    - It may help capture fluctuating symptoms
    - Large variation across studies and more studies needed



#### Other tech & TBI

- Juengst et al. 2021
  - Scoping review looking at monitoring with mobile tech
  - 12 studies identified
  - post-concussive, depressive, and affective symptoms, fatigue, daily activities, stroke risk factors, and cognitive exertion.
  - Found it feasible & acceptable
  - Schedule/timing of intervention unclear



#### Other tech & TBI

- Christopher et al. 2019
  - Looked at Mobile applications

TBI-BH ECHO

- Limited evidence base
- No specific apps

#### Autism Spectrum Disorder

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The <u>current</u> state of the continuum of care for Autism Spectrum Disorder

- Autism spectrum disorder (ASD) is a heterogeneous, behaviorally defined neurodevelopmental disorder.
- No clear diagnostic markers and specifically targeted medications for autism
- Can present ANYWHERE and be part of ANY appointment
- Diagnosis and treatment of comorbidities
- Early interventions are better

Wang et al, 2023

TBI-BH FCH

#### **Patient Barriers**

- Cognitive impairment
- Complex treatment regiment
- Limited mobility
- Limited public awareness of Autism Spectrum Disorder
- It is a spectrum so not every has the same needs

Setnik, L., & Bazarian, J. J. (2007), Brain injury, 21(1), 1-9. Flanagan SR, Bell K, et al. (2012) Brain Injury 12(2).

#### **Provider Barriers**

- Limited time for complex patients
- Complex coordination care needs
- Limited knowledge and experience with Autism
   Spectrum Disorder comorbid conditions

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Limited access and support to specialist care

#### **Provider Barriers**

Slide Adapted from C. Towle, RN

**TBI-BH ECHO** 



Jukkala AM, Henly SJ, et al. RJ Contin Educ Nurs. 2008 Rourke JT, Incitti F, et al. Can Fam Physician. 2003

### Risks vs Benefits of Telemedicine

Risks?

 No clear studies to date that show risks of telemedicine

BI-BH FCHO

Looming data privacy questions

# **Risks vs Benefits of Telemedicine**

Benefits?

- Literature is improving is quality
- May help with diagnosis (well... prescreening)
- May help connect with parents concerns
- May facilitate use of Telehealth applications

### Al & Autism Spectrum Disorder

- Wankhede et al, 2024
- Current diagnosis relays on multiple screens and behavioral observations
- AI shows early promise in collecting and identifying Autism from other neurodiverse populations
- Also VR could be used for treatment
- Very limited data/ trials/ lingering concerns about data privacy



### Important Considerations: TBI & Autism Spectrum disorder

- Both are diverse in their presentation, assessment needs, and adapting to Telehealth
- Both have no evidence that you could not use Telehealth assessment to address or begin to address concerns
- Both can present anywhere



### Important Considerations: TBI & Autism Spectrum disorder

- Prescreen & Preplan
  - What are the behavior or concerns?
  - Can they be assessed via tele?
  - Can this patient be assessed with limited assistance remotely (or has assistance)?
  - What can you send/ do in preparation for the appointment?

Kane et al, 2023

### Important Considerations: TBI & Autism Spectrum disorder

- Running an appointment
  - Care taker report
  - Plan for what you hope to get through and then adjust
  - Reassess for future appointments
    - Does it need to be in person?
    - Do they need to be longer or shorter?
    - Do we need more support in the room?
    - Are we meeting with the right person virtually?



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#### **TBI-BH ECHO**

# Looking for Health Equity & Ethics Training?

# *Cultural Humility In Behavioral Health Care*

- Free two-hour module
- On-demand & self-paced
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- Free two-hour module
- On-demand & self-paced
- Meets Law & Ethics training requirements in WA State

#### Learn more at: <a href="https://bhinstitute.uw.edu/learn-online">https://bhinstitute.uw.edu/learn-online</a>



#### **TeleMental Health Guides for Infancy to Young Adults**

#### Guides (8)

- Infancy and Toddlers
- Pre-schoolers
- Elementary School Children
- Middle School Youth
- High School Teens
- Young Adults
- Neuropsychological Testing
- Suicidality



#### DEFINING ELEMENTARY-SCHOOL CHILDREN (GRADES 1-5)

Elementary-School Children [ES: guodes 1 bits 05 hill vary genafy by genafer and ages in their pubertial development and cognitive motarity, and resources. For example, a 1 a grade boy may still be learning to control imputes and cooperation in the datascon while a 5th grade grin roy be hill y puberch and rows or is colorial expectations. Thus, the distinct must be fastible in considering the engagement and heatment of ES children through TeleVient Meant (TMH) services. Typically, ES children readily engage with technology, especially seeing therealises on TV'.



TELEMENTAL HEALTH GUIDE FOR ELEMENTARY-SCHOOL CHILDREN

#### Case Example

Adduits a 10 y/o Afghani refugee bay who presented with his mother due to the school's cancern with his inattention and dimarchishily in class, acelesaness and afficially adving seated, velling out anaxies implicatively, and falling behind acceleratically. The Anther noted attiliand Efficiulties in the home, expectable vegating homework. Bah prenets worked and lived in an urban neighborhoad with poor transportation options, so they agreed to home-based TAHI. The family used heir smattphone for the sessions, with adequate, but not optimol, cell reception. Sessions were held in the parent's bedroom, for privacy. An older saler wachled the siblings in another room or took them for a walk.

Abdl was readly engaged over the smartphone and told of his favorite videogame, his love of Legos, and his best friend at school, as well as the injustces of his siblings. The clinician conducted the interview by alternating between the mother's history and the child's input.

Even with the spoty connectivity, the clinician appreciated Abdit's good verbal xills intellect, charming personalty, as well his impulsive insurances and mill mid-facial and guitrud lit. To assess the gross more xills, the clinician oxided Abdult to do some movement, including some dance movements. He was an waved and had difficulty cooling dawn arcse waard up. To assess its fine motor xills, and to keep him accupied in order to abdain the mother's history, Abdult was asked to dave a picture of historian entities (the picture) and the picture of the smart barrow picture of historian entities (the picture) was and the sameting and the and the sameting of the smart barrow picture of historian entities (the entity statistically told of its meaning, demonstrating his creativity and knowledge.

The clinician then asked Abdul to play with his Hot Wheels in front of his mother, allowing more time with the mother while monitoring Abdul. He did so fairly quiety for a while, then become increasingly loader, and then disuptive. At avrians times, Abdul's mother quiety linged the samptions's camera to allow observation of Abdul's 1ga whom his knowledge. He did show symbolic play, although somewhat aggressive with the Hot Wheels breaking off some wheels.

Then, the clinician sear an ADHD rating scale and an anxiety rating scale to the older doughter's table to that the mother could complete these bathsvier across in another room which the clinician spars scans individual line with Abdul. The mother class logged into the school's website to check Abdul's grades, missing assignments, and the teacher's recent commerts. Meanwhile, the clinician observed Abdul's play and engaged him verbally regarding his Hot Wheels. The clinician saked Abdul to trace his fourchite Hot Wheel car and write the name of it along with his rome on top of the paper. It is showed some difficulties with tocing and permannity but had correct spelling. He showed increased its movements while regarded in its use.

The clinician made a diagnosis of ADHD with a concern about 6 the motor disability and fac. They wate treatment plan on the "White Board" that included: 0) the clinician requesting completion of behavior rating scales from selected sectors, to be plaoted into the clinician's vebsic pand; b) making the child a "focus of Concern" under Abblic Law 94-142 for further school evaluation and possibly special elucations services, and c) developing a tructured plan for homework, nucleding turing in ineliably; and 0 the mather reviewing the tratiment plan on the website and reading information about ADHD teachment, including using behavior charts. As the family dd no haws a primer, the clinician dos server hard corps of the readment plan and endings. They made a plan for the mother to meet lone with the clinician in a week to set up a behavior program and discuss the relevance of a medication trial, consistent with evidence-based tratement (in cADHD).

evening the child e potential risk to

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#### Additional <u>Free Resources</u> for Washington State Behavioral Health Providers

EDUCATIONAL SERIES:

- UW Traumatic Brain Injury Behavioral Health ECHO  $\rightarrow$   $\rightarrow$   $\rightarrow$
- UW Psychiatry & Addictions Case Conference ECHO
- UW TelePain series

#### **PROVIDER CONSULTATION LINES**

- UW Pain & Opioid Provider Consultation Hotline
- Psychiatry Consultation Line
- Partnership Access Line (pediatric psychiatry)
- Perinatal Psychiatry Consultation Line

UW Medicine DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCES

Washington State Health Care Authority Integrative Health, Provider Wellness, and/or Support for Patients with TBI - David Kopacz

> TODAY 12-1.30pm







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