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Tales of a Rural School-Based Telehealth Program:

Behavioral Telehealth Edition

National School-Based Health Care Conference

July 2, 2024

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Meet Your Presenters

Erika Taylor, MS, LMFT-S, BC-TMH, PMH-C
Behavioral Health Faculty/Clinical Instructor
Clinical Supervisor & Service Consultant – School-Based Telehealth
ECU Department of Family Medicine, Behavioral Medicine Section

Enfiniti Afriyie, MS, LCMHCA, NCC, LCASA
Behavioral Health Specialist & Clinical Supervisor
School-Based Telehealth
ECU Department of Public Health

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Acknowledgment and Disclaimer

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Objectives

- Provide **introduction and overview of the *Healthier Lives at School & Beyond*** school-based telehealth program, including the **behavioral telehealth** service line
  - Care Design & Operations
  - Referral Identification and Pathways
- Provide introduction to **three unique modalities of care delivery and evidence-based treatment approaches** utilizing **case vignettes**
  - Virtual In-School Services (teletherapy)
  - Virtual At-Home Services (teletherapy)
  - On-Site Behavioral Health Consults (bus trips)
- Identify and discuss **successes and challenges** associated with school-based behavioral telehealth services

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Audience Roll Call!

Stock Photo provided by ECU Health Branding Office

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Who We Are: Our Origins

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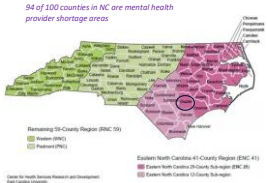
Identified Need

- **Geographic Area Selection:** Rural health focus with a mission to reduce health disparities of medically underserved and disadvantaged communities across ENC
- **Target Population**: School-aged youth, school staff/faculty, family units
  - Children with a treatable MH disorder who did not receive treatment (Whitney & Peterson, 2019)
    - National prevalence - 49.4%
    - NC prevalence – 72.2%
  - Limited access to school and community health resources (NC Child, 2021)
    - NC School Nurse Ratio – 1:1,007
    - NC School Counselor Ratio – 1:316
    - Past yr. MDD among 12-17 y/o in NC – 15.5% (2017-2019)
    - NC Mental Health Providers – 490:1 (2017); 320:1 (2019)
    - NC Primary Care Physicians – 1,410:1

94 of 100 counties in NC are mental health provider shortage areas



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Timeline of Program Evolution

2016
Awarded HRSA grant funding under the Telehealth Network Grant Program (TNGP)

2016-2017
Identified Duplin County, NC as pilot County. Met with stakeholders from the community, healthcare, school system, health department, and dental services.

Early Sept. 2018
Procured full interdisciplinary care team. **Completed first behavioral telehealth visit in September.**

Mid-Sept. 2018
Duplin County devastated by Category 1 Hurricane Florence. Displaced hundreds of families and temporary shutdown schools.

Re-routed resources and energies to support community re-build.

October 2018
Behavioral Health team launched virtual support circles (equivalent of support group) for school staff.

2019
Expanded service delivery from three (3) to all eleven (11)Pre-K-12 grade schools within Duplin County school district.

Completed 320 telehealth encounters in 2018-2019 SY (YG).

March 2020
Coronavirus (COVID-19)pandemic hits. School closures pause services.

April 2020
Developed protocols for converting virtual in-school services to in-home services utilizing both virtual and telephonic modalities to continue care.

Worked to supply hotspots to the community.

May-August 2020
Continued to provide community support and assessed needs.

September 2020
Identified major care access gap – health assessments.

Partnered with ECU Pediatrics and ECU Transit to retrofit an ECU football bus to create a mobile integrated care clinic.

2021
Expanded into two additional rural school systems – Jones County & Clinton City Schools (Sampson County).

2021-2024
Healthier Lives program became an approved internship training site for mental health learners from ECU graduate programs.

Expansion into fourth rural school district – Bertie County.

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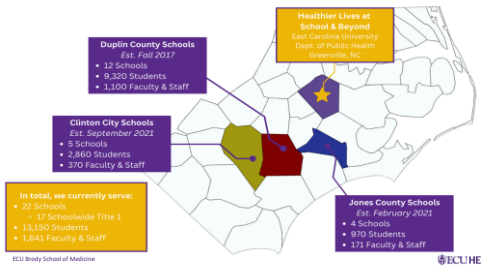
Today's School-Based Telehealth Footprint



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Rural Landscape – Duplin County, NC

Total Population – 49, 520; Child Population – 16,357

- **Quality of Life & Health Factors**
  - Poor or Fair Health – 21%
  - Frequent Mental Distress – 17%
  - Diabetes Prevalence – 13%
  - Physical Inactivity – 30%
- **Clinical Care**
  - PCPs – 4,410:1
  - Mental Health Providers – 1,260:1
  - Dentists – 3,500:1
  - Uninsured children – 11.6% (2021); Uninsured adults – 24%
- **Social & Economic**
  - Median Household Income – $51,200
  - Children in Food Insecure Homes – 19.8%
  - Children in Poor/Low-Income Homes – 62.5%
  - Children in Single-Parent Households – 32%
  - Children Assessed for Abuse or Neglect (per 1,000) – 57.6%
  - Disconnected Youth – 13%
  - Children eligible for Free/Reduced Lunch – 99%
- **Education (2021-2022)**
  - 3rd grade students scoring proficient in reading – 27%
  - High school graduation rate – 85%
  - Residents w/bachelor's degree or higher – 15.6%

State's largest hog producer and #2 in agriculture

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Who We Are: Our Services

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Program Overview

www.healthierlives.ecu.edu

- **School-Based Telehealth Program designed to**:
  - Remove barriers to quality care access
  - Help reduce, or prevent, the effects of chronic disease
  - Decrease time missed in the classroom or at work
  - Reduce unnecessary emergency department visits
  - Increase access to worksite wellness services for staff
  - Improve educational outcomes
  - Provide a team-based care approach, offering:
    - Acute Medical
    - Nutrition Counseling
    - Behavioral Health

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The How: Key Players & Operations Breakdown

Administration & Management Team	Clinical Team	School Team
Oversee and manages day-to-day operations, research/data collection, and administrative tasks	Coordinates care delivery, provides direct care and oversees student supervision PRN	Key players at originating sites (schools, community)
Program Management Program Director Primary Investigator Medical Director	**Acute Medical Services** Addresses minor medical needs (sore throat, stomach ache, asthma). *Providers based in BSOM & Center for Rural Health Innovation's Health e-Schools.*	**School Nurse** Primarily identifies and refers acute medical and nutrition cases. Trained in tele-presenting students for each service.
Research Associate & Intern Coordinates data collection, analysis, compliance and reporting. Aids in construction of operational procedures and guidelines.	**Nutrition Counseling** Addresses dietic components of care (weight management, healthy eating, medical nutrition therapy). *Providers are registered dietitians and based in BSOM.*	**School Social Worker/ School Counselor** Primarily identifies and refers BH cases. Trained in tele-presenting students for BH and nutrition services.
Administrative Support Staff Leads the administrative arm of service delivery, including scheduling coordination, template design, waitlist management.	**Behavioral Telehealth (BH)** Addresses emotional health needs, particularly those impacting performance/functioning w/in the school environment. *Providers are licensed MH professionals and clinical interns.*	**Telehealth Logistics Coordinators** Provide on-demand, on-site school support ("boots on the ground"). Aid in community outreach, bridge b/w schools and TH team, and serve as secondary tele-presenter PRN.

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Behavioral Telehealth Objectives

- **Improve access to care and provide early identification and intervention** for common pediatric mental health disorders
- **Provide high quality, evidence-based services** to students, faculty and staff
- **Support strategic goals of Public School Units (PSU)** (enriching mindsets and supporting the whole child) by embedding services directly into school

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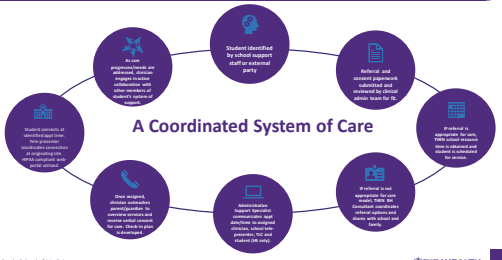
The How: Identification & Referral Pathway



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Common Referral Sources

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Referral Options

- **Step 1: Speak with parents/legal guardians**
  - Obtaining caregiver consent to submit a referral is required
  - Explain reason for referral/answer questions/achieve consensus
  - Address care barriers/concerns
  - Respect aspects of family's culture, beliefs and values
- **Step 2: Aid parent/legal guardian in completing formal referral paperwork**
- **Step 3: Submit forms via HIPAA compliant electronic or hardcopy submission**
  - https://redcap.ecu.edu/surveys/?s=JA3Y3P9Y7E
- **Staff Referrals: Follow the same process.**
  - All referrals are safe and confidential

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Common Referral Reasons

- ADHD
- Adjustment Difficulties
  - e.g., big life changes, school/classroom adjustment, family changes/displacement
- Terminal Illness or significant health-related changes
- Feeling down or depressed
- Emotional Dysregulation
  - e.g., frequent crying, aggression towards others, outbursts
- Grief or loss of a loved one
- Stress Management
- Sleep Dysregulation
  - e.g., oversleeping, trouble falling asleep, nightmares, etc.
- Little interest in doing things or withdrawal from friends
- Anxiety
  - e.g., social, generalized, separation, school avoidance, academic/performance based
- Self-soothing and regulation skills for trauma symptoms
- Behavioral Management Skills

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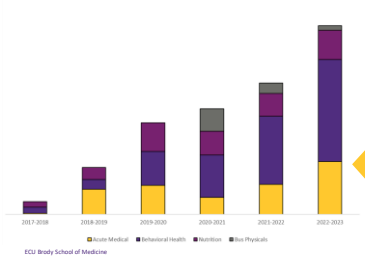
The Impact (2022-2023 SY)



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1285 Total Encounters

361 Acute
- 83.4% of encounters could return to work/class same-day

694 Behavioral Health
- Jones County had a 310% increase in appointments from previous year

200 Nutrition
- Duplin County had a 42% increase in appointments from previous year

30 Bus Physicals

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Service Breakdown: 2022-2023 SY

Nutrition Counseling & Education

- **28** total patients
  - 14% of patients are staff
  - **16 projected to restart services in Fall 2023**

Behavioral Health

- **115** total patients
  - 59 patients from Duplin Co.
  - 24 patients from Jones Co.
  - 32 patients from Clinton
  - 97% of patients are students
  - **42 projected to restart services in Fall 2023**

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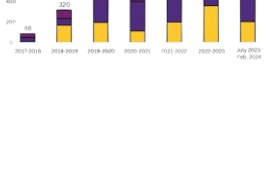
Telehealth Service Line Usage

Telehealth Usage Over Program Lifetime



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Behavioral Telehealth Care Delivery

Examples of diversification and adaptation of service delivery to meet evolving rural health needs

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Behavioral Telehealth Service Overview

Clinical Care

- Provision of behavioral assessments and therapeutic interventions utilizing a brief, short-term virtual care model
- Supported by evidence-based, empirically validated theoretical models
  - Brief Cognitive Behavioral Therapy (B-CBT)
  - Solution Focused Brief Therapy (SFBT)
  - Person-Centered Therapy
  - Problem Solving Therapy
  - Family Systems Theories
  - Biopsychosocial-Spiritual Framework (BPSS)
- Coordinated treatment planning
- Referred patients receive an average of 6-12 teletherapy sessions
  - Aligns with short-term care model, increases access to care, and improves wait times

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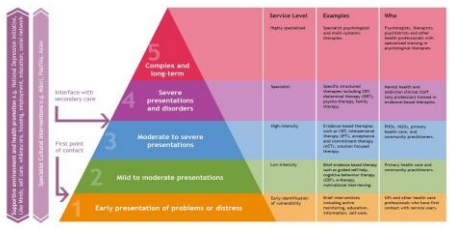

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Behavioral Telehealth Provider Overview

Providers

- Providers specialize in integrated approaches to healthcare, including an emphasis on biopsychosocial-spiritual or whole-person care
  - Two (2) licensed mental health providers
  - Three to five (3-5) master's and doctoral level graduate interns per year
    - School Psychology (PhD), Health Psychology (PhD), Clinical Counseling (MS), Counseling Education (MS), Marriage and Family Therapy (MS)
- Clinical supervisors are trained in the primary care behavioral health (PCBH) model with background in medical family therapy and clinical mental health counseling
  - Learner-Centered Education Model
  - Person-of-the-Therapist Training Model (Aponte & Kissil, 2018)

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Our Behavioral Health Team (23-24 SY)

Erika Taylor, MS, LMFT, BC-TMH
Behavioral Health Clinical Supervisor & Consultant

Enfiniti A. Afriyie, MS, LCMHCA, NCC, LCASA
Behavioral Health Specialist & Clinical Supervisor

Kallie Rose Maloney
Doctoral Student, Clinical Health Psychology

Emily Jansen
Doctoral Student, Clinical Health Psychology

Jenna Amato
Masters Student, Counselor Education

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In-School Service Delivery

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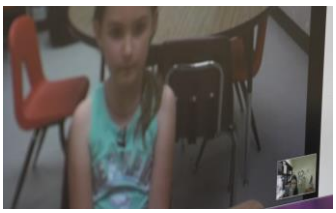
In-School Service In Action



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On-Site Resources

- Treasure chests
- Feelings Jenga and Feelings Ball
- Mad Dragon card game
- Animal finger puppets
- Discussion cards
- Sensory tools – pop its, tactile breathing stickers
- Online tools – electronic color wheel, emotions bingo, chess, fillable PDF, YouTube videos, electronic white board, screen share, screening tools

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At-Home Service Delivery

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Overview

- Mainly provided in extenuating circumstances or during summer months
- Families and patients must agree to:
  - Safe, secure and private location to complete visits
  - Comfortably facilitate connection and re-connection when necessary
  - If a minor, have a supervising adult available for full duration of visit
  - Reliable, private wifi or broadband connection
  - Access to a reliable connectivity device (smartphone, laptop, desktop)

***Our team works to problem-solve potential barriers**

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Case Scenario

- **Demographics:**
  - 14 yr. Old, Caucasian male
- **Referring Party/How Referral was Identified:**
  - School Counselor
    - Concerns related to homebound schooling → district facing possible ramifications
- **Referral Reason(s):**
  - Social anxiety causing severe functional impairment
  - Homebound 2+ yrs. d/t fears of public spaces (suspected agoraphobia)
- **Risk Factors @ Time of Referral:**
  - Academic performance concerns
  - Inability to promote to next grade level
  - Comorbid physical health concerns/complexity

Based on your role and respective SBH site, how might you and your team approach this type of referral? Challenges?

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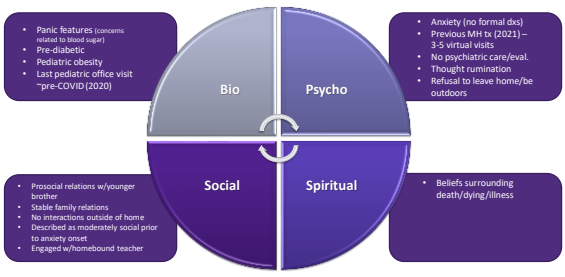
BPSS Assessment & Conceptualization



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Within our care model (it's not school)?
What do we have to offer?
Higher level of care?
Within our Scope?
What are our ethical responsibilities?
What barriers might we face?

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What We Did

- **Educated and Prepared (before first visit)**
  - **Services**
    - **Parent**: Conducted telephonic outreach with parent to overview services and reasons for referral, outlined care model and confidentiality, reviewed scope of practice/care, discussed post-session communications, verified consent for service, addressed questions/concerns, gathered intake information
    - **Teacher & School Counselor**: Conducted telephonic outreach to review social history prior to becoming homebound, reviewed current educational needs/goals, reviewed confidentiality limitations, previously attempted interventions
  - **Technology**
    - Identified tele-presenter and provided tech education, reviewed disconnection and remote emergency plan
      - **Primary Tele-Presenter** – Homebound Teacher
      - **Secondary/Backup Tele-Presenter** – Patient w/mom as aid
    - Scheduled a "tech check" meeting
  - **Scheduling**
    - Aligned appointments with in-home teacher's schedule (end of class time)
    - Bundle scheduled (with input from teacher and parent) to enhance follow-up rate, accommodate varying schedules, aid patient in preparing for visits (enhancing structure and organization)

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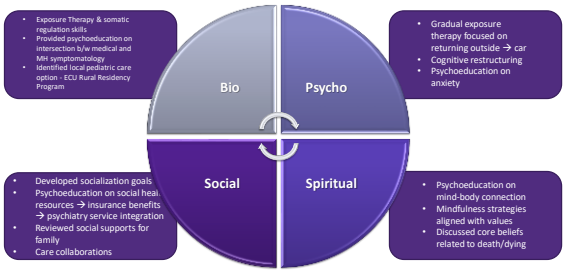
What We Did: Utilized BPSS Framework to Inform Care



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Case Scenario

- **Intended Outcomes (Treatment Goals):**
  - Provide psychoeducation on anxiety and panic, focusing on the connection between physical symptoms (such as blood sugar concerns) and anxiety.
  - Teach and practice relaxation techniques (e.g., deep breathing, progressive muscle relaxation, mindfulness) to manage acute anxiety.
  - Gradually introduce exposure therapy to help the patient confront and reduce avoidance behaviors, such as refusal to leave home or be outdoors.
- **# of Completed Sessions:**
  - Completed a total of 10 sessions.
- **Referral Recommendations:**
  - Primary Care Physician (PCP) for a health assessment, monitoring blood sugar levels, managing physical health concerns, and ruling out any medical conditions contributing to anxiety. Additionally, consult a dietitian or nutritionist for dietary guidance to stabilize blood sugar, improve overall health, and support anxiety management. A psychiatrist should evaluate the need for medication to treat anxiety and panic symptoms and manage any prescribed medications for effectiveness and side effects.

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Case Scenario

- **Treatment Progress:**
  - Successfully spent 5 minutes outside on the porch, an improvement from previously being unable to sit on the porch during sessions.
  - Identified and communicated when their mind and body were initiating a fear response, indicating increased self-awareness.
  - Utilized and collaborated with ECU Brody School of Medicine Rural Residency Program to help familiarize the patient with various components of the medical environment.
  - Family successfully regulated their own anxious dysregulation and need to aid the patient when in distress, enhancing the patient's independence.
  - Patient was unable to get into a car to go to the office but showed increased comfort with the idea of interacting with a medical provider and understanding what to expect.
  - Provided referral information to the patient's parents for follow-up with a doctor who assisted with familiarization to coordinate in-person care in the future.

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On-Site Consultations

Interdisciplinary Care Provision via Bus Trips

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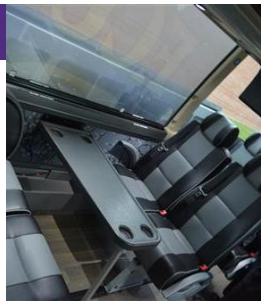
The Need

- Immunizations and health assessments required within 30 days of starting school or childcare
- COVID-19 limited pediatricians' ability to schedule health assessments, particularly in rural communities
- Over 200 students facing out-of-school suspension



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The Answer

Replicating the integrated care model…on a bus!

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Adolescent Wellbeing Framework

Source: https://www.who.int/activities/promoting-adolescent-well-being
World Health Organization (WHO); Partnership for Maternal, Newborn & Child Health (PMNCH)

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Innovative Interdisciplinary Care Approach – Bus Trips

Team Members	Team Roles
Registered Dietitians	Provide on-demand nutrition counseling/education; refer for care PRN
Pediatrics – residents, medical students, attendings	Provide full health assessment and ultra brief depression/anxiety screening (PHQ-4)
Behavioral Health – clinical interns, licensed provider/supervisor	Provide on-demand behavioral health consultation based on screening results; refer for care PRN
Nursing – school nurse, nursing students	Identify students, coordinate bus arrivals, and obtain pre-assessment vitals
School Support Staff & Administration	Assist in student identification, day-of coordination, communicate w/families
Public Health – intern, research associate	Assist with day-of logistics, book distribution, community health related needs and data collection

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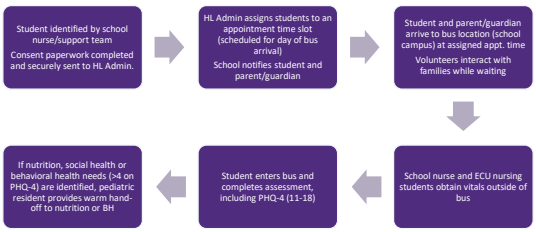
Workflow



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Our Team in Action

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Outcome Data

Total Bus Trips (YTD): 18

Total Students Served: 22 (first trip); 303 YTD

Total Students Referred to BH (same day): 10

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Strengths & Limitations

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Strengths

- **Strong partnerships across communities** – ECU services are embedded in pre-existing community supports
  - FM Rural Residency Program rotation site
  - ECU Health Duplin Hospital – partnered on separate grant project with HL team member
  - ECU Health outpatient clinics
- **Every school in Duplin County has a dedicated school nurse**
  - Over 50% of school nurses in NC split their time between two or more schools
  - Bridging the gap with TLCs in other counties
- **Service setting and delivery modality**:
  - Convenient, de-stigmatizes, reduces care and transportation burden, takes place in safe environment, can be discrete, reduces traditional access barriers, reduces care fragmentation, enhances coordinated care, whole child/family centered
- **Training Hub** – creating rural health professional pipeline

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Limitations

- Service modality **requires advanced training** and education (provider), **technology proficiency** (provider & patient)
- **Contraindicated for some** conditions and populations – not a universal fit
- **Connectivity and broadband challenges** (digital divide)
- **Remote services** create barriers to including entire family
- **Advanced time and energy investment** from entire care system to provide effective, fluid, quality services (remote vs. in-person workflows)
- **Scheduling** – finding time in school day
- **Provider shortages** – few providers, none full-time
- **Time-Bound** d/t funding

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Implications & Lessons Learned

Functional equipment matters	Switched from complex to portable user-friendly technology
Boots on the ground are critical	Ensuring on-site partners are well trained, well valued and well heard/served; TLCs Bus trips and site visits made by providers (Fall/Spring)
Build continuous feedback loops	Annual surveying and quarterly check-ins (at minimum) with cross-sector stakeholders, including schools Various aspects of program delivery and design have been revised/refined based on direct feedback from schools
First Order Change	Services may not fully resolve initial issues warranting service referrals, yet have the capacity to create behavioral and systemic changes that can inform long-term improvements ("planting seeds")

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"The benefits to us are immeasurable. It [telehealth program] has provided things for our students that we wouldn't have had. And we know, as educators, for kids who get good health care and are healthy, there are going to be academic benefits down the road."

Dr. Ben Thigpen, former Duplin County Assistant Superintendent

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"You just overcome all those barriers in one fell swoop. And when I have a child who needs something, I know I can get the child to services. Every person that I have sent to a nutritionist or behavioral health specialist [via telemedicine] has been a success story. Their lives have been touched and changed by it, and they have been made healthier by it. And having children who are physically healthy, mentally healthy and nutritionally healthy creates stronger communities."

Dr. Mary Gaylord, former Duplin & Sampson County Pediatrician

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"According to my son, it was awesome. He doesn't have anybody, so technology is his friend. And speaking to someone through a computer screen, for him, was like being on a spaceship. He really enjoyed it. He's speaking with Erika and she gives him suggestions and pointers, and he comes home and practices it. I think it's a great program, especially when the child comes back and talks to the parent. That's what I like about it, because you can see the difference in the child."

Jovan & Johnnie Wilson, Student and Parent

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Stay Connected

Erika Taylor – taylorer17@ecu.edu

Enfiniti Afriyie – afriyiee16@ecu.edu

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