EVIDENCE BASED ASSESSMENT (EBA) INITIATIVE
FINAL RESULTS
BHSB – SCHOOL YEAR 2019-2020

Summer 2020
OBJECTIVES

▪ Describe the Expanded School Behavioral Health Program and historic evaluation tools utilized

▪ Provide an overview of the Evidence Based Assessment (EBA) Initiative purpose and process

▪ Review the results of the EBA Initiative for the 2019-200 School Year

▪ Discuss the findings summary and lessons learned to improve future EBA Initiatives
EXPANDED SCHOOL BEHAVIORAL HEALTH (ESBH)
Overview- School Year 2019-2020
Program Overview

- **Early Childhood Mental Health**
  - FY2020 ECMH program facilitates access to early childhood mental health consultation in 3 Head Start Programs

- **Expanded School Mental Health**
  - FY2020 Expanded School Mental Health (ESMH) program facilitates access to school-based outpatient services in 119 public schools.

- **School Based Substance Use Disorder Program**
  - FY2020 School Based SUD Program facilitates access to school-based outpatient services in 15 public schools.

- **Includes**
  - Prevention
  - Early Intervention
  - Ongoing Care
HISTORIC OVERVIEW

IDENTIFIED OUTCOMES

• Student Attendance: percentage of students attending at least 90% of school days

• Suspension: percentage of students with no suspensions after beginning services

• Special Education referrals: decrease in the number of behavior-based referrals to IEP teams

• Promotion: percentage of students promoted to the next grade
• Georgetown University
  • Comprehensive program evaluation
  • Found that students receiving ESMH services had increased promotions, better attendance and less suspensions than their peers not receiving services

• 2015 Re-Evaluation
  • Conducted of a sample of schools
  • Found better attendance and fewer suspensions
Evidence-Based Assessment (EBA) Initiative involves:

- Use of assessments that are reliable, valid, and clinically useful for the intended population
- Data collection at regular intervals throughout treatment
- Informing diagnosis, treatment planning, and outcome
- Ongoing progress monitoring to inform changes in treatment
• Purpose of the EBA Initiative:
  • Facilitate program evaluation in a way that reduces bias and improves accuracy
  • Support data-informed decision making in schools
  • Support school behavioral health quality and accountability
SCHOOL YEAR 2019-2020

EVIDENCE-BASED ASSESSMENT (EBA) INITIATIVE

- EVIDENCE-BASED ASSESSMENT
  - Selected Tool: PSC-17
  - Sample Size: Six (6) youth per school

- THE PEDIATRIC SYMPTOMS CHECKLIST (PSC-17)
  - A psychosocial questionnaire with 3 subscales:
    - Attention Problems
    - Internalizing Problems
    - Externalizing Problems
  - Assessment Purpose: Screening, Initial Assessment, Progress Monitoring, and Treatment Outcome
  - Two versions:
    - Parent version (PSC-17): Ages 3-16
    - Youth Self-Report (PSC-17): Ages 17-18
SCHOOL YEAR 2019-2020

EVIDENCE BASED ASSESSMENT (EBA) INITIATIVE

- **Subscales:**
  - Attention
    - Fidgety
    - Unable to sit still
    - Daydreams too much
    - Has trouble concentrating
    - Acts as if driven by a motor
    - Distracted easily
  - Externalizing
    - Refuses to share
    - Does not understand other people’s feelings
    - Fights with other children
    - Blames others for his/her troubles
    - Does not listen to rules
    - Teases others
    - Takes things that do not belong to him/her
  - Internalizing
    - Feels sad, unhappy
    - Feels hopeless
    - Is down on self
    - Seems to be having less fun
    - Worries a lot
EBA RESULTS – MENTAL HEALTH RISK AND SUBDOMAINS

Overall Results- School Year 2019-2020
EBA Results of Total PSC-17 Score
SY2019-2020 - Phase 1 vs Phase 2

n=511; p < .05*
EBA Results of PSC-17 Subscale Scores
SY2019-2020 - Phase 1 vs Phase 2

Subscale Scores: n=511
Internalizing: p > .05
Attention: p > .05
Externalizing: p < .05*
EBA RESULTS – MENTAL HEALTH RISK BY GENDER* AND RACE

Stratified Data Analysis- School Year 2019-2020
EBA Results of Total PSC-17 Score by Gender
SY2019-2020 - Phase 1 vs Phase 2

Girls: n=210; p > .05
Boys: n=301; p < .05*
EBA Results of PSC-17 Subscale Scores by Gender
SY2019-2020 - Phase 1 vs Phase 2

Girls: n=210
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

Boys: n=301
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p < .05*
EBA Results of Total PSC-17 Score by Race
SY2019-2020 - Phase 1 vs Phase 2

African American: n=399; p > .05
Caucasian: n=60; p > .05
Hispanic or Latino: n=25; p > .05
Multi-Racial: n=22; p > .05
EBA Results of PSC-17 Subscale Scores by Race
SY2019-2020 - Phase 1 vs Phase 2

African American
Caucasian
Hispanic or Latino
Multi-Racial

Average of Internalizing

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Average of Attention

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Average of Externalizing

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<td>Multi-Racial</td>
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African American: n=399
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

Caucasian: n=60
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

Hispanic or Latino: n=25
- Internalizing: p < .05*
- Attention: p > .05
- Externalizing: p > .05

Multi-Racial: n=22
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05
EBA RESULTS – MENTAL HEALTH RISK BY GRADE
Stratified Data Analysis- School Year 2019-2020
EBA Results of Total PSC-17 Score by Grade
SY2019-2020 - Phase 1 vs Phase 2

Elementary: n=330; p > .05
Middle: n=99; p > .05
High: n=82; p < .05*
EBA Results of PSC-17 Subscale Scores by Grade
SY2019-2020 - Phase 1 vs Phase 2

Elementary: n=330
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

Middle: n=99
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

High: n=82
- Internalizing: p < .05*
- Attention: p > .05
- Externalizing: p > .05
EBA RESULTS – MENTAL HEALTH RISK BY DIAGNOSIS

Stratified Data Analysis- School Year 2019-2020
EBA Results of Total PSC-17 Score by Depression
SY2019-2020 - Phase 1 vs Phase 2

Depression: n=85; p > .05
No Depression: n=426; p > .05
EBA Results of PSC-17 Subscale Scores by Depression
SY2019-2020 - Phase 1 vs Phase 2

Depression: n=85
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

No Depression: n=426
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p < .05*
EBA Results of Total PSC-17 Score by Anxiety Disorder
SY2019-2020 - Phase 1 vs Phase 2

Anxiety Disorder: n=132; p > .05
No Anxiety Disorder: n=379; p > .05
EBA Results of PSC-17 Subscale Scores by Anxiety Disorder
SY2019-2020 - Phase 1 vs Phase 2

**Anxiety Disorder: n=132**
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

**No Anxiety Disorder: n=379**
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p < .05*
EBA Results of Total PSC-17 Score by ADHD
SY2019-2020 - Phase 1 vs Phase 2

Total by ADHD Bar

**ADHD**: n=277; *p* < .05*

**No ADHD**: n=234; *p* > .05
EBA Results of PSC-17 Subscale Scores by ADHD
SY2019-2020 - Phase 1 vs Phase 2

ADHD: n=234
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: < .05*

No ADHD: n=277
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05
EBA Results of Total PSC-17 Score by Conduct Disorder
SY2019-2020 - Phase 1 vs Phase 2

Conduct Disorder: n=92; p > .05
No Conduct Disorder: n=419; p > .05
EBA Results of PSC-17 Subscale Scores by Conduct Disorder
SY2019-2020 - Phase 1 vs Phase 2

**Conduct Disorder: n=92**
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

**No Conduct Disorder: n=419**
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p < .05*
EBA Results of Total PSC-17 Score by Developmental Disorder
SY2019-2020 - Phase 1 vs Phase 2

Developmental Disorder: n=22; p > .05
No Developmental Disorder: n=489; p > .05
EBA Results of PSC-17 Subscale Scores by Developmental Disorder
SY2019-2020 - Phase 1 vs Phase 2

Developmental Disorder:
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

No Developmental Disorder:
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p < .05*
EBA Results of Total PSC-17 Score by Trauma History
SY2019-2020 - Phase 1 vs Phase 2

Trauma History: n=193; p > .05
No Trauma History: n=318; p > .05
EBA Results of PSC-17 Subscale Scores by Trauma History
SY2019-2020 - Phase 1 vs Phase 2

Trauma History: n=318
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p > .05

No Trauma History: n=193
- Internalizing: p > .05
- Attention: p > .05
- Externalizing: p < .05*
EBA INITIATIVE

Findings, Lessons Learned and Lessons Underway
FINDINGS- SUMMARY

▪ Mental Health (MH) risk decreased significantly, overall
▪ Externalizing Subscale decreased significantly, overall
▪ Stratified Analyses:
  • MH risk decreased significantly in Male students
  • Externalizing Subscale decreased significantly in Male students
  • Internalizing Subscale decreased significantly in Hispanic students
  • Externalizing Subscale decreased significantly in Caucasian students
  • MH risk decreased significantly for High School students
  • Internalizing Subscale decreased significantly for High School students
  • MH risk decreased significantly in students experiencing ADHD
  • Externalizing Subscale decreased significantly for students experiencing ADHD
LESSONS LEARNED

• **Choice of Tool**
  - Challenge: Identification of tool which provides the needed data and can be easily implemented across service lines
  - Solution: Intensive and ongoing collaboration with sub-vendors, data analysis team and consultants to evaluate tools and determine choices

• **Evidence Based Assessment vs. Evidence Based Intervention**
  - Challenge: Results may allow for hypothesis regarding impact of enrollment/treatment but do not point to a particular intervention
  - Solution: Ongoing data process development and analysis with sub-vendors and the data analysis team

• **Data Analysis (Capacity and Collaboration)**
  - Challenge: Analysis of data takes time and staff which challenges capacity
  - Solution: Monthly collaboration meetings to evaluate and prioritize needs and determine distribution of work
LESSONS UNDERWAY

• Academic Demands
  • Challenge: Academic demands of the school day with the common core and PARCC assessment as focus of the program with little left over time for supplemental service
  • Solution: Presentation of data that supports better academic achievement when mental health services are provided (Georgetown report)

• Sub-Vendor Engagement
  • Challenge: Engaging sub-vendors to be willing to participate in the Evidence Based Assessment Initiative via completion and submission of the PSC-17
  • Solution: Active and ongoing sharing of results and hypothesis with sub-vendors, including potential benefits of a larger sample size

• Caregiver Engagement
  • Challenge: Due to services being provided on-site at schools, in person engagement of caregivers can be limited
  • Solution: Selection of a tool which can be completed via phone and or electronic device
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▪ Baltimore City Public Schools

▪ School Clinicians

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QUESTIONS?
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▪ Trainings for Providers: https://www.bhsbaltimore.org/get-involved/events/
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Envisioning a city where people live and thrive in communities that promote and support behavioral health

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