A Brief Intervention Strategy for School Mental Health Clinicians (BRISC): Findings from a Multi-Site Efficacy Study

Eric Bruns, PhD[1], Elizabeth McCauley, PhD[1], Kristy Ludwig, PhD[1], Mike Pullmann, PhD[1], Chayna Davis, PhD[1], Kristine Lee, BA[1], Cheryl Holm-Hansen, PhD[2], Mark Sander, PsyD[3], & Sharon Hoover, PhD[4]

[1]University of Washington, [2]Wilder Foundation, [3]Hennepin County/Minneapolis Public Schools, [4] University of Maryland, Baltimore

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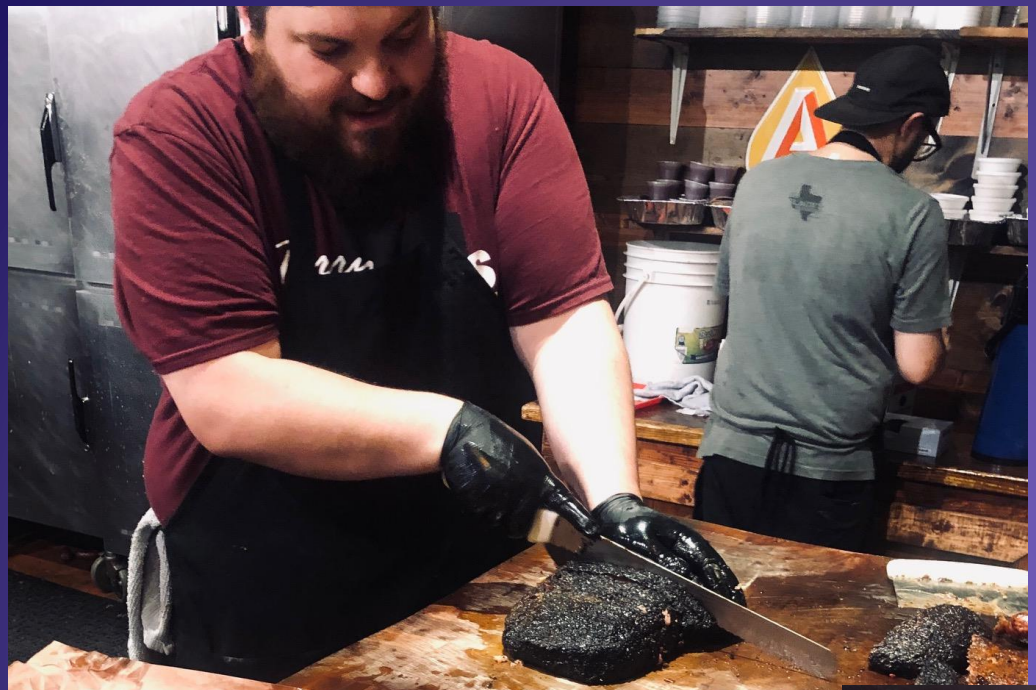

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Agenda for the Presentation

- **Why** and **How** BRISC was developed
- **What** BRISC is – core assumptions and elements
- **Results** from a three-state efficacy study
- **Reflections** from our local leads: Drs. Hoover and Sander

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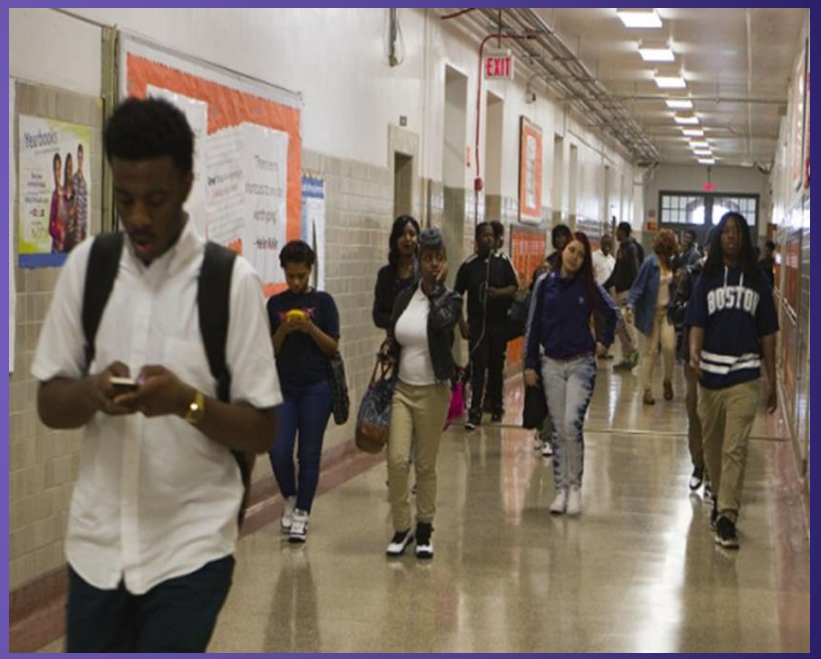
The Case for School Mental Health is Strong

- **1 in 5** students have an MH diagnosis
- As many as **3 in 5** report distress that interferes with school and life
- Only **20%** of youth get needed MH services
- Schools offers *accessible* services, particularly for historically underserved youth
- SMH reduces stigma
- SMH service lead to improvements:
  - Mental health
  - Academic outcomes
    - e.g., attendance & grades



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Access ≠ Effectiveness

1. **Access & Utilization** of Services
2. Enhancing **Service Quality**

However, SMH "as usual" has much potential for improvement

- Strong evidence for targeted psychosocial interventions-anxiety, depression, oppositionality/aggression
- Evidence based strategies not widely used in school based care
- EBP developers have paid insufficient attention to the school context and how it might influence effective service delivery

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What is needed?

- Approaches that serve more students in need
- Approaches that mesh with MTSS/PBIS models
- Approaches that integrate school success goals
- "Response to Intervention" models—provide care as needed, not one size fits all

What is BRISC?

Core Assumptions and Elements

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BRISC Aims to Overcome Shortcomings Of "School MH As Usual"

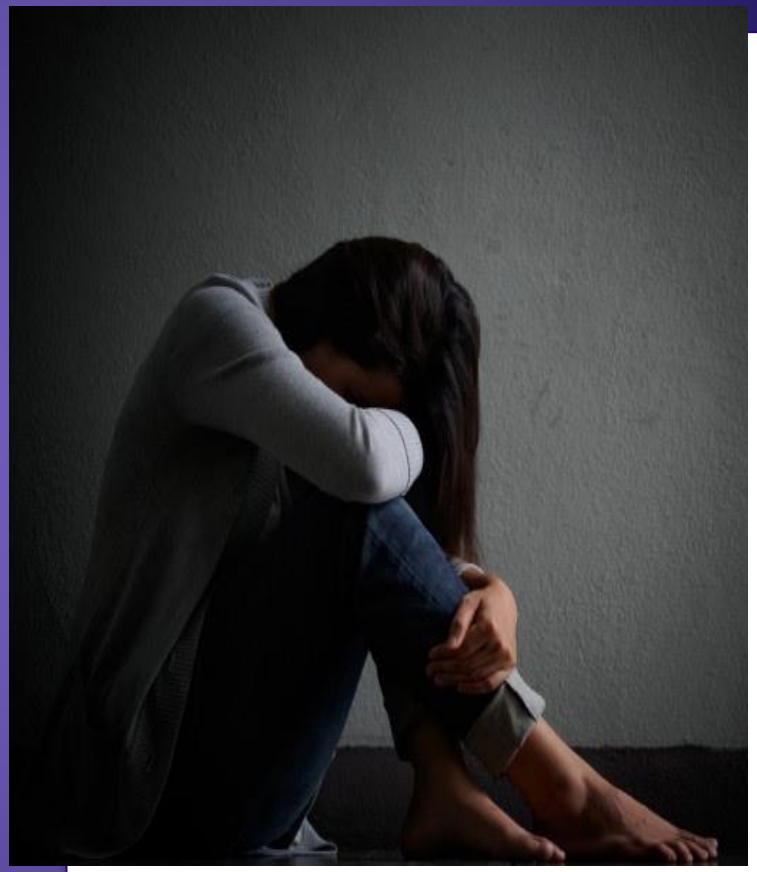
School-Based Usual Care	BRISC
Intervention is often crisis-driven (Langley et al., 2010)	Structured / systematic identification of treatment targets
Often focused on providing nondirective emotional support (Lyon et al., 2011b)	Focused on skill building / problem solving
Interventions do not systematically use research evidence (Evans & Weist, 2004; Rones & Hoagwood, 2000)	All intervention elements are evidence-based
Standardized assessments are used infrequently (Weist, 1998; Lyon et al., 2011a)	Utilizes standardized assessment tools for progress monitoring

Core Assumptions

BRISC helps SMH provider:

- **Engage** with student by asking about their immediate concerns
- **Assess** issues student wants help with AND nature of student's needs
- **Teach** basic tools to empower students

Provides a structured triage approach to assess and inform intervention planning.



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BRISC IS AN **ENGAGEMENT, ASSESSMENT, BRIEF INTERVENTION, AND TRIAGE** TOOL

It is not designed to be a comprehensive treatment approach.

Core BRISC Process

- Engage, Assess
- ID Top Problems
- Collaborative Problem Solving
- **Did student successfully implement problem solving?**

No

If NO: What was the BIGGEST BARRIER to moving forward?

- Wrong Problem/ Solution → Revisit Problem List/PS Steps
- Can't Manage Stress/Mood → Stress and Mood Management Guide
- Unable to Express Needs → Communication Guide
- Stuck in Negative Thinking → Realistic Thinking Guide

THEN: Individualized, skill-based response

YES

- More to Work on
- Choose a New Problem
- Done with Counseling

BRISC Protocol Overview

Session 1: Engagement, Informal Assessment "What's Up?", and Problem Identification

Session 2: Problem Solving

Session 3: Continued Problem Solving – teaching skills as needed:

- Stress and Mood Management
- Realistic Thinking
- Communication Skills

Session 4: Review Student's Needs & Plan for Next Steps

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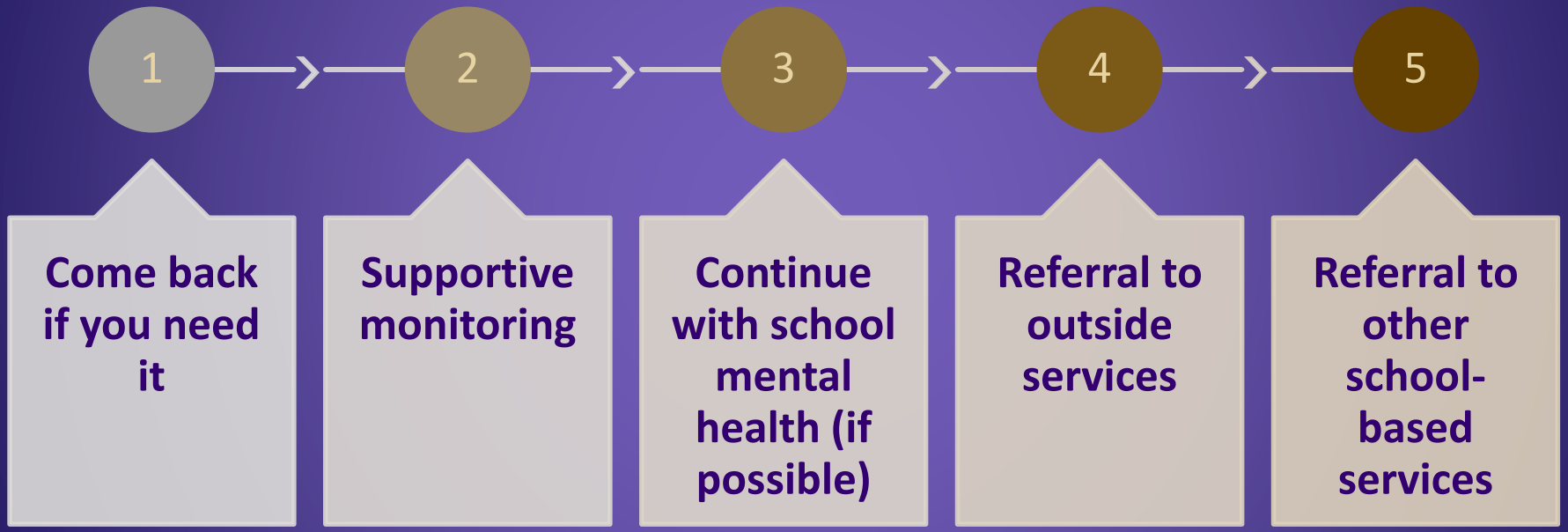
Stepped Care: Determining Next Steps



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BRISC GOAL 3 Efficacy Study

Institute of Education Sciences

R305A160111

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BRISC Efficacy Study: Research Design/Methods

- **Cluster randomized trial**
- **Stratified random assignment** of schools to BRISC or SMH as usual (SAU)
  - Each school has 1-2 clinicians
- **Clinicians referred students to the study** who sought or were referred to SMH services
- **Research team:**
  - Conducted primary data collection with students and parents
  - Administered implementation measures and surveys to clinicians
  - Compiled school records (analyses pending)
  - Compiled session audiorecordings for both groups (analyses pending)

BRISC Efficacy Study: Measures/Analyses

- **BRISC only:**
  - BRISC Fidelity
  - Clinician perceptions of acceptability and feasibility of BRISC
- **SAU and BRISC – Data collected at BL, 2, and 6 mos:**
  - Services received over time – SMH, inpatient, outpatient
  - Student perceptions of care, therapeutic alliance
  - Mental health outcomes using standardized measures
  - Resolution of Student Identified "Top Problems"
  - Student academic outcomes – Self-report and from school records
- Content of treatment sessions – use of evidence-based techniques
- **Data Analytic Strategy:** Multilevel growth modeling.

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Participating Research Sites

Total Sample:
457 Students
382 Parents or guardians
75 Mental health providers
52 High schools
15 Participating school districts

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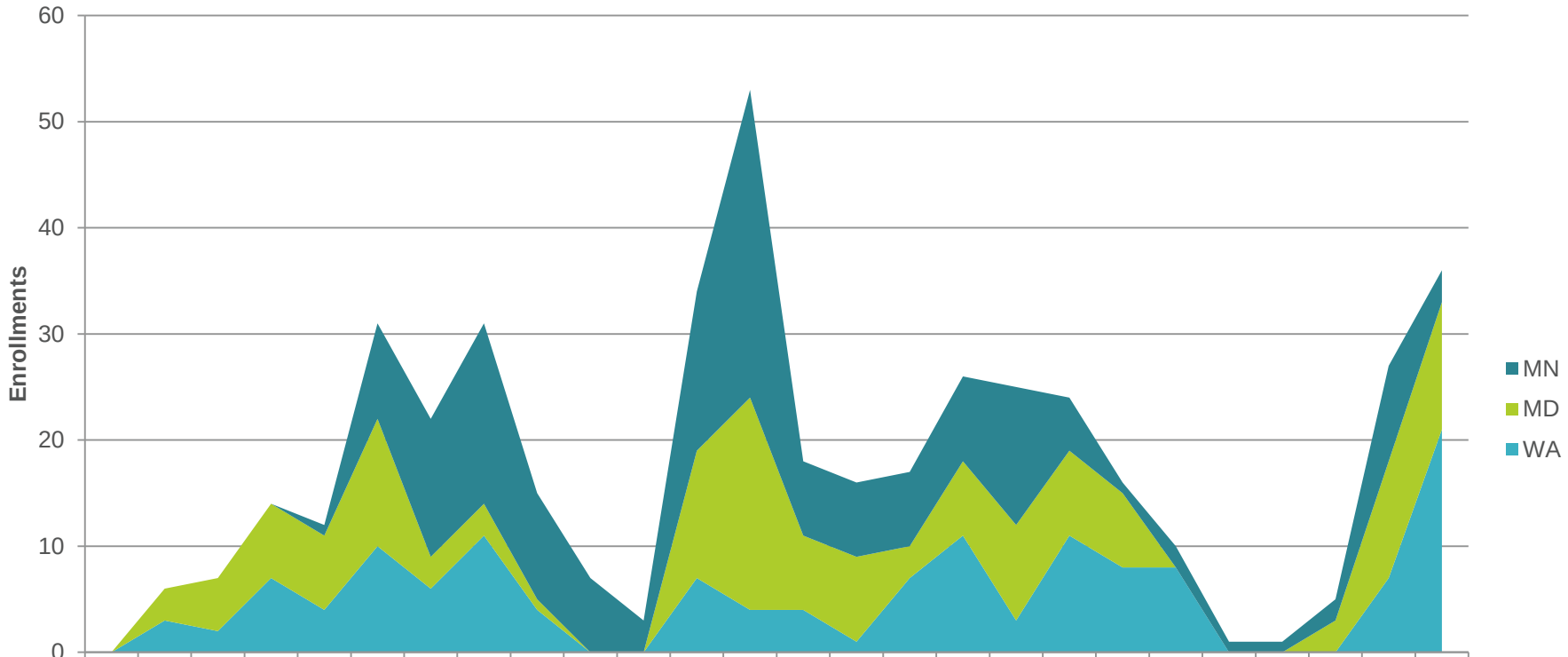
Study Recruitment

Enrollments by Site Across Time



	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18
MN	0	0	0	0	1	9	13	17	10	7	3	15	29	7	7	7	8	13	5	1	2	1	1	2	9	3
MD	0	3	5	7	7	12	3	3	1	0	0	12	20	7	8	3	7	9	8	7	0	0	0	3	11	12
WA	0	3	2	7	4	10	6	11	4	0	0	7	4	4	1	7	11	3	11	8	8	0	0	0	7	21

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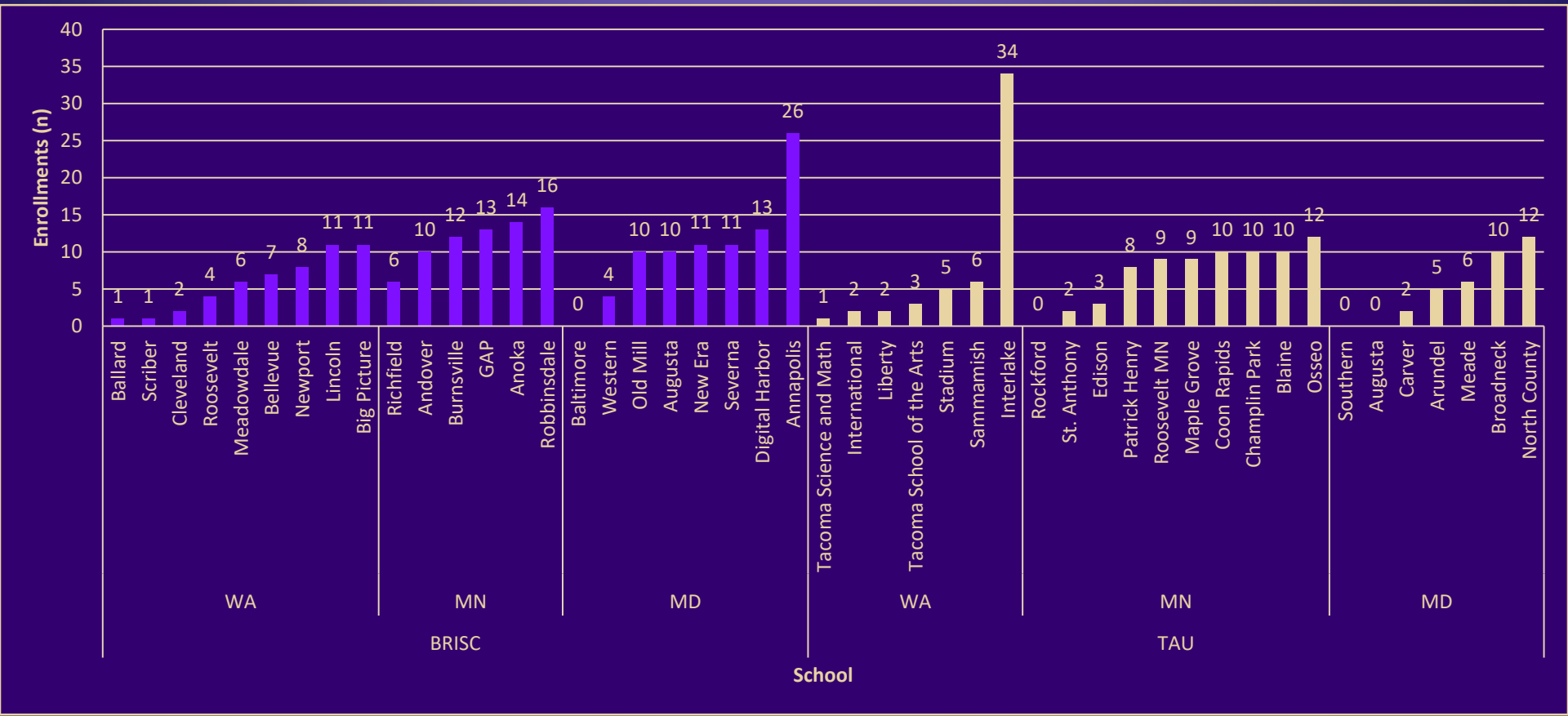
Number of Study Enrollments by School/State/Condition

Figure 6. Enrollments by school.



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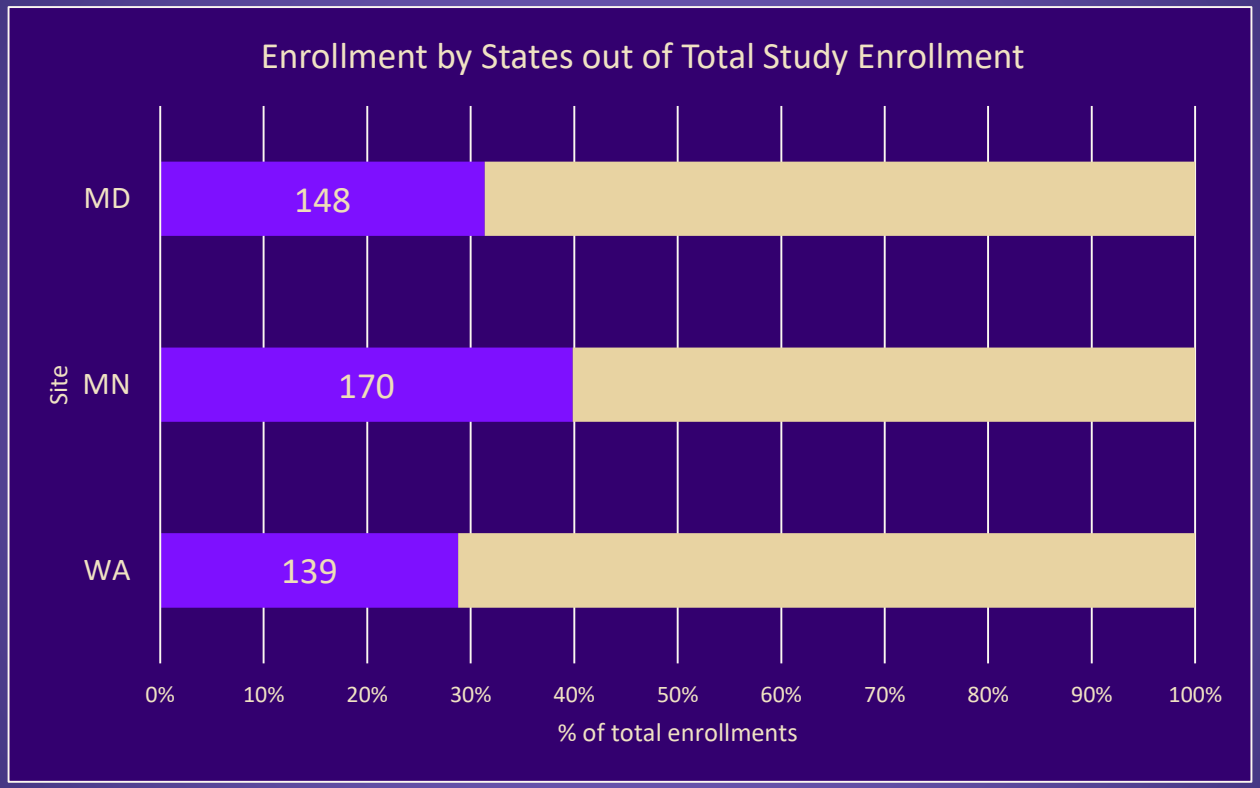
Study Enrollment by State



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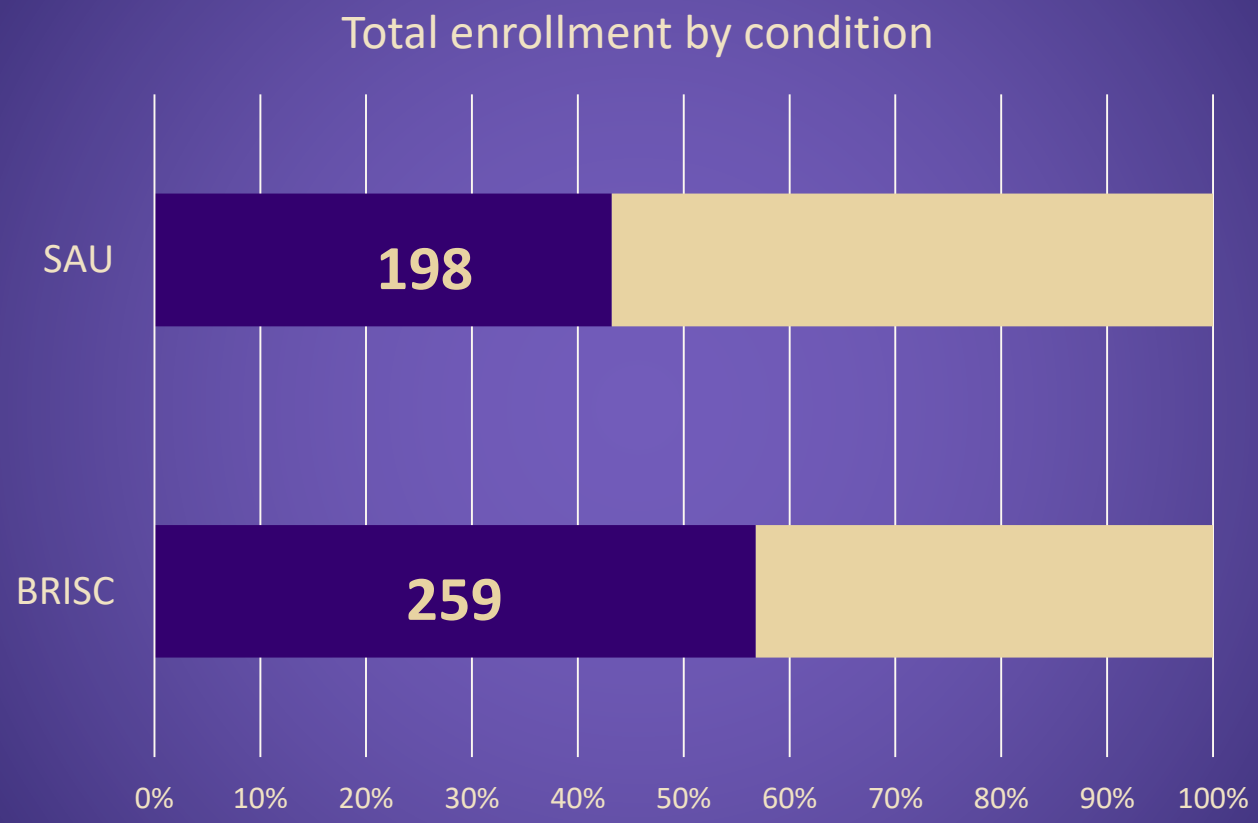
Study enrollment by condition



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Student Sample Demographics: No differences at baseline

Table 1.

Student participant demographics as a whole sample and by condition (BRISC, TAU).

Participant Demographics	Whole Sample					
	BRISC		TAU		Total	
	n	%	n	%	n	%
Gender						
Male	91	35.1	58	29.3	149	32.6
Female	165	63.7	140	70.7	305	66.7
Endorsed another gender	3	1.2	0	0.0	3	0.7
Total	259	100.0	198	100.0	457	100.0
Race						
Am. Indian or Alaskan Native	2	0.8	4	2.0	6	1.3
Asian	11	4.2	10	5.1	21	4.6
Black or African Am.	90	34.7	39	19.7	129	28.3
Native Hawaiian or Pacific Islander	2	0.8	4	2.0	6	1.3
White or Caucasian	88	34.0	83	41.9	171	37.4
Latino as race only*	29	11.2	29	14.6	58	12.7
Multiracial	33	12.7	24	12.1	57	12.5
Other	4	1.5	4	2.0	8	1.8
Missing	0	0.0	1	0.5	1	0.2
Total	259	100.0	198	100.0	457	100.0
Ethnicity						
Latino	49	18.9	49	24.7	98	21.4
Non-Latino	209	80.7	146	73.7	355	77.7
Missing	1	0.4	3	1.5	4	0.9
Total	259	100.0	198	100.0	457	100.0
Grade Level						
9th grade	85	32.8	55	27.8	140	30.6
10th grade	59	22.8	55	27.8	114	24.9
11th grade	65	25.1	54	27.3	119	26.0
12th grade	50	19.3	34	17.2	84	18.4
Total	259	100.0	198	100.0	457	100.0
Free/Reduced Lunch Eligibility						
Eligible	161	62.2	117	59.1	278	60.8
Not Eligible	87	33.6	76	38.4	163	35.7
Missing	11	4.2	5	2.5	16	3.5
Total	259	100.0	198	100.0	457	100.0
	BRISC Mean ± sd		TAU Mean ± sd		Total Mean ± sd	
Age	16.32 ± 1.28		16.24 ± 1.14		16.28 ± 1.22	

* Latino as race only, as specified by youth

Follow up Data Collection Success: Some Differential Attrition

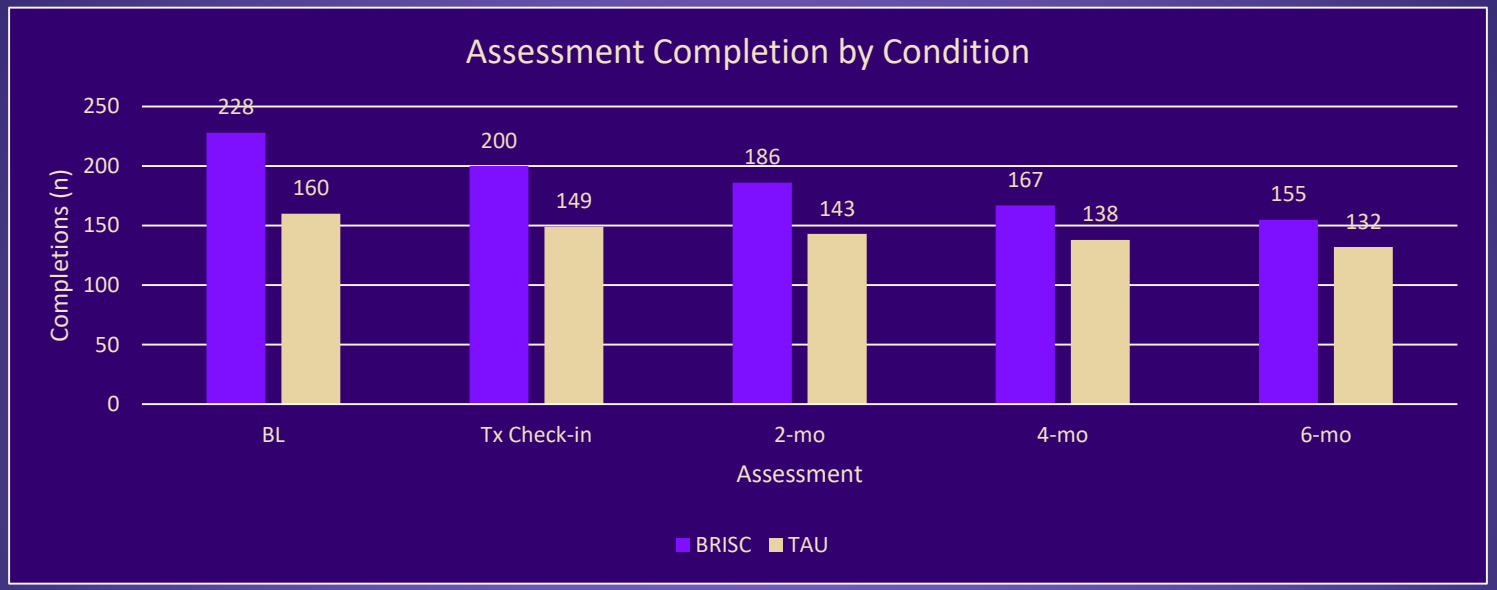

Table 3. Survey assessment completions.
Total enrollment is 389. Does not include active participants.

	BL		Tx Check-in		2-mo		4-mo			6-mo
Condition	n	% Retention	n	% Retention	n	% Retention	n	% Retention	n	% Retention
BRISC	228	100.0	200	87.7	186	81.6	167	73.2	155	68.0
TAU	160	100.0	149	93.1	143	89.4	138	86.3	132	82.5

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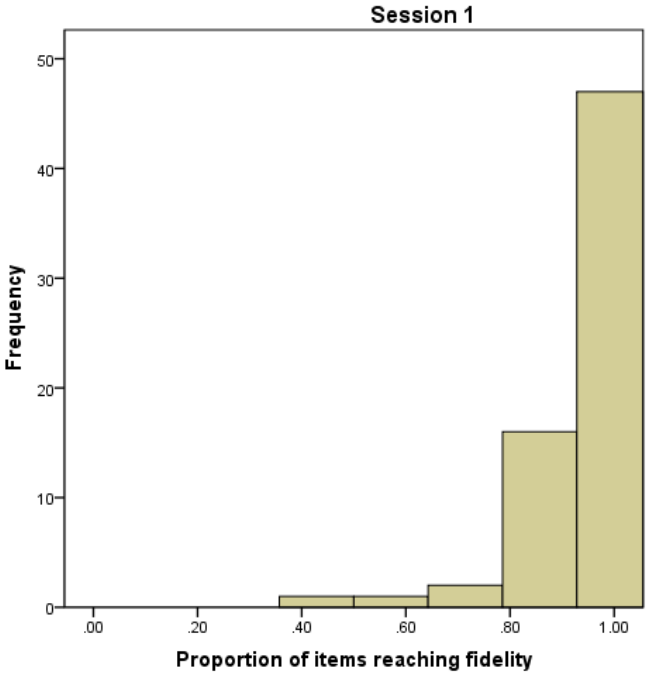
Results

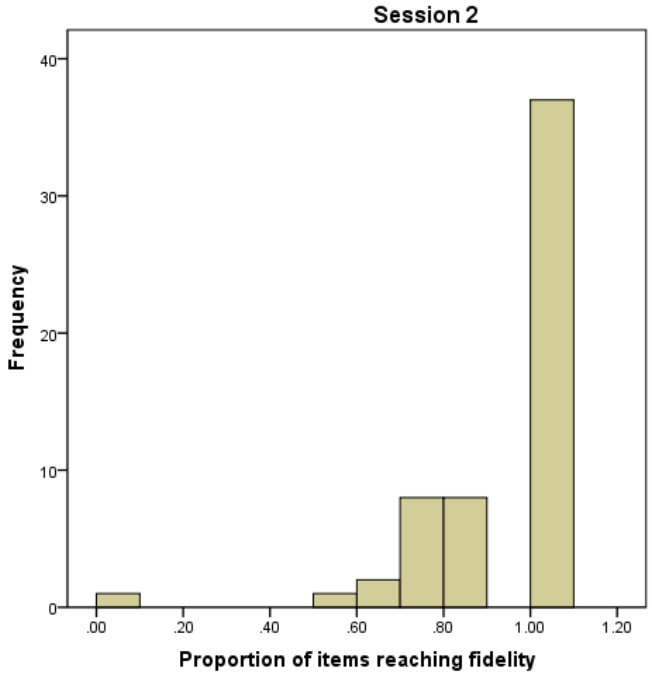
Fidelity

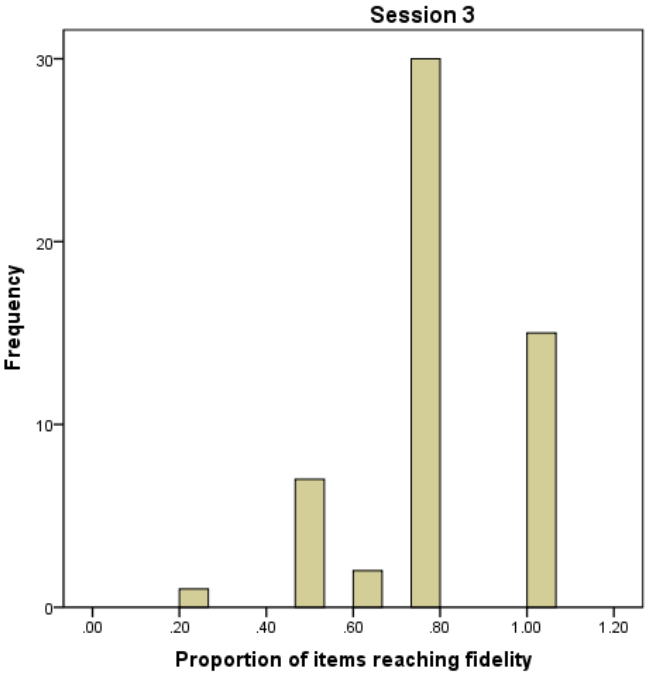
Treatment Processes

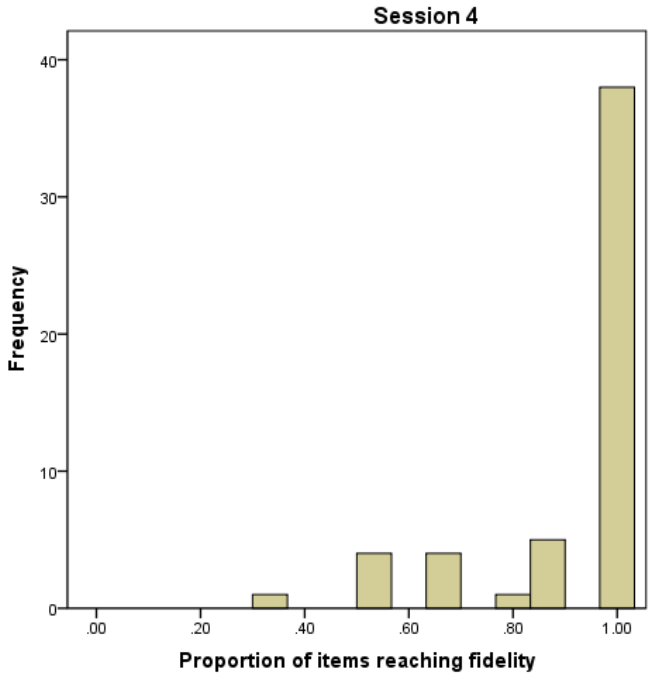
Summary of Fidelity Results

	Percent of items meeting fidelity		Overall quality of session (1 is low, 5 is high)		Engagement (1 is absolutely unresponsive, 5 is extremely responsive)	
	M	***SD***	**M**	***SD***	**M**	***SD***
Session 1	94.2	*10.8*	3.7	*0.88*	4.2	*0.83*
Session 2	90.8	*17.3*	3.4	*0.99*	4.1	*0.96*
Session 3	77.4	*17.2*	3.0	*0.99*	3.9	*0.96*
Session 4	90.1	*17.5*	3.2	*0.93*	4.0	*0.97*

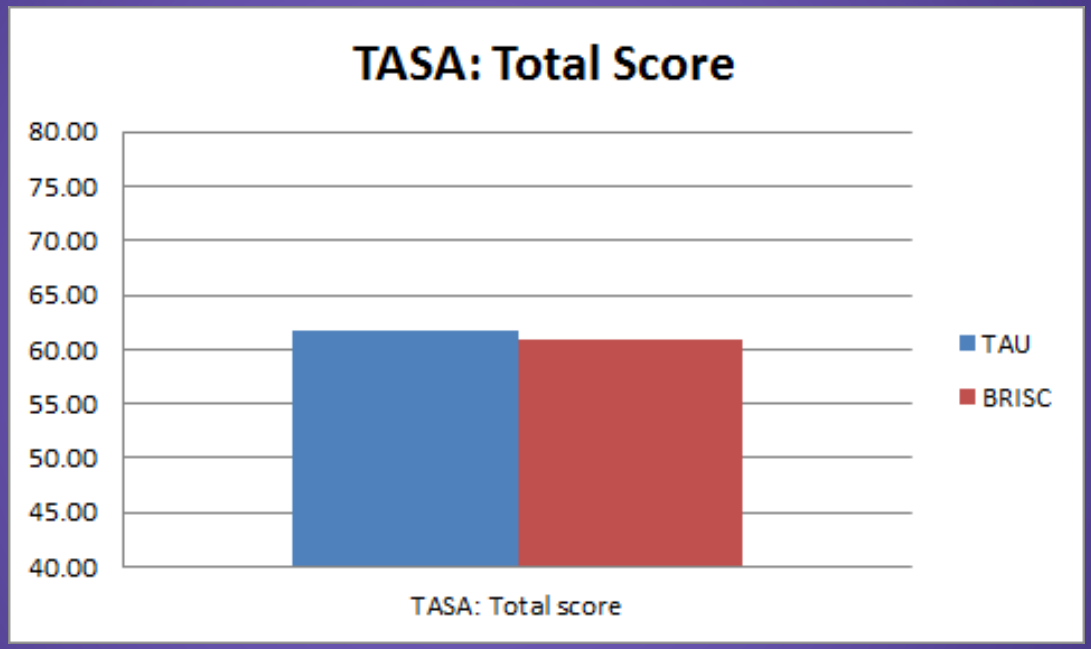

Session 1
Frequency
Proportion of items reaching fidelity


Session 2
Frequency
Proportion of items reaching fidelity


Session 3
Frequency
Proportion of items reaching fidelity


Session 4
Frequency
Proportion of items reaching fidelity

Therapeutic Alliance Scale for Adolescents (TASA)



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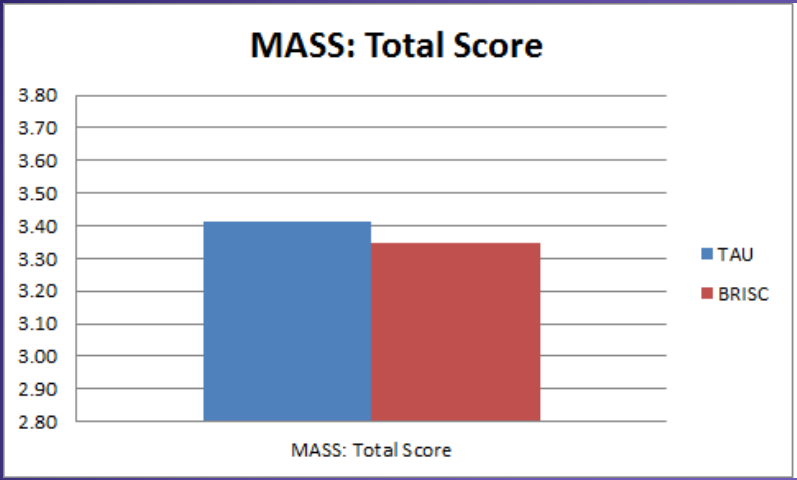
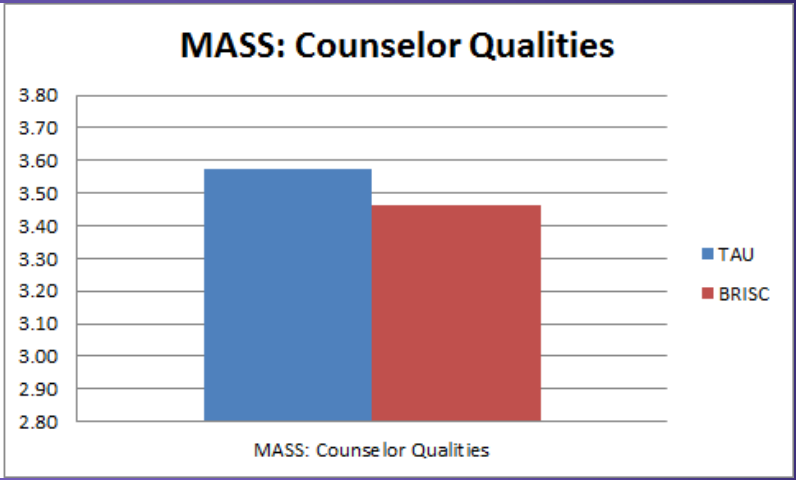
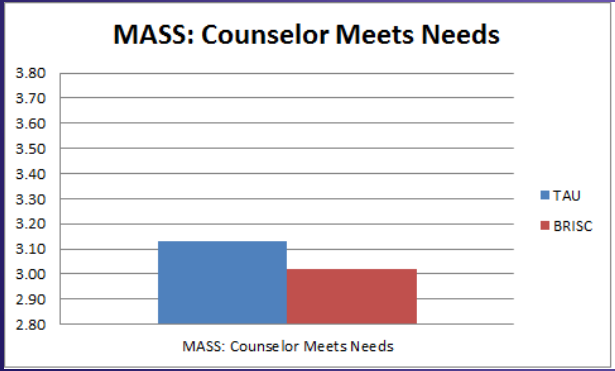
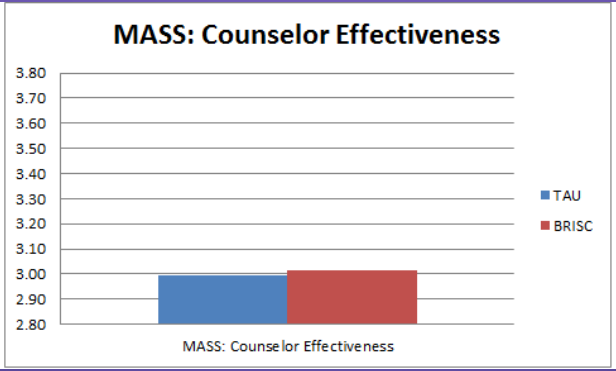
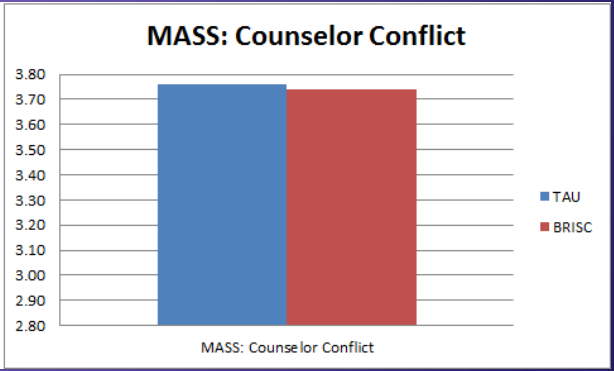
Multidimensional Adolescent Satisfaction Scale (MASS)











Results

School MH Engagement and MH Services Received

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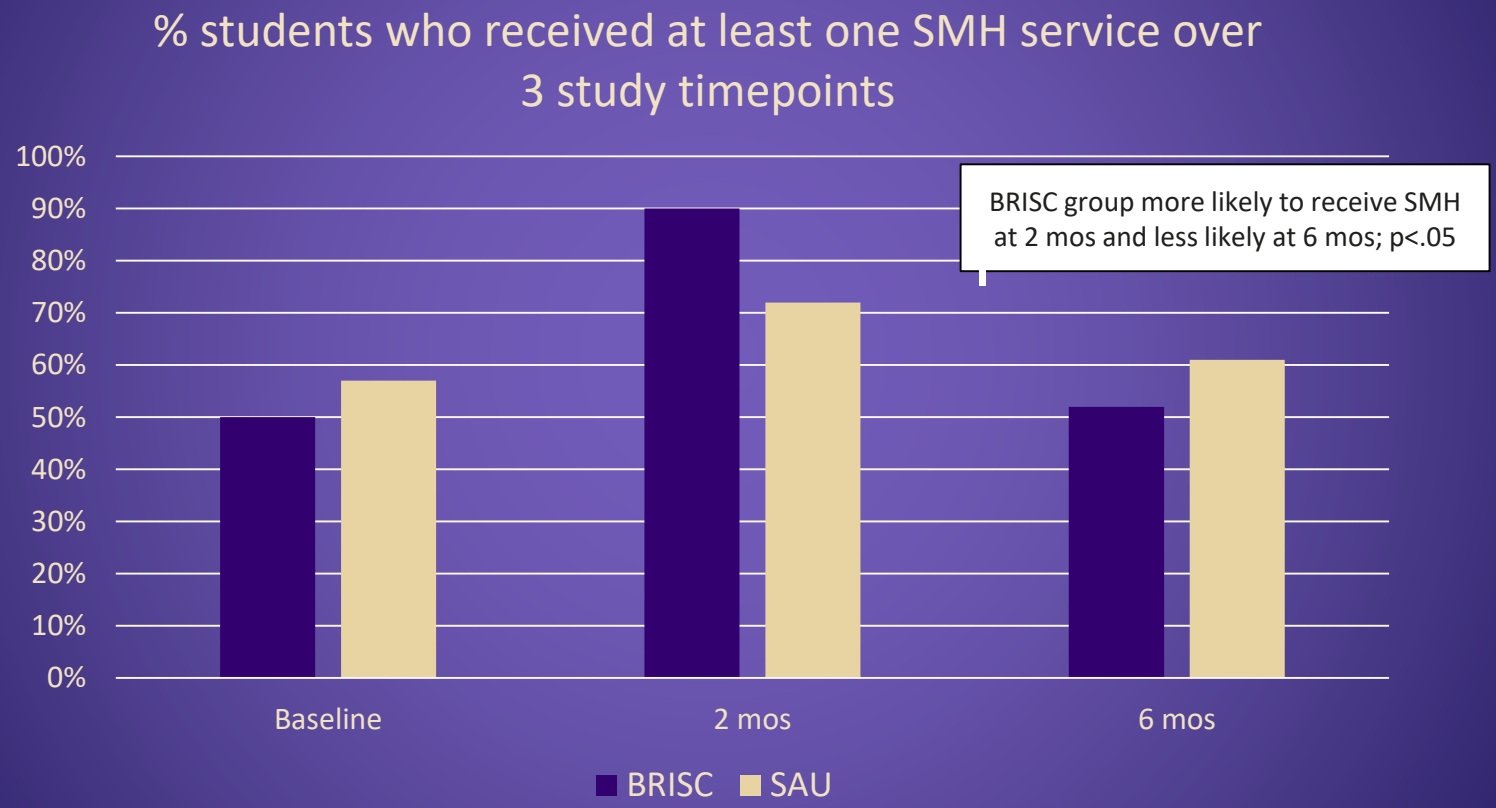
BRISC students were more likely to engage in SMH at 2 mos, but less likely at 6 mos



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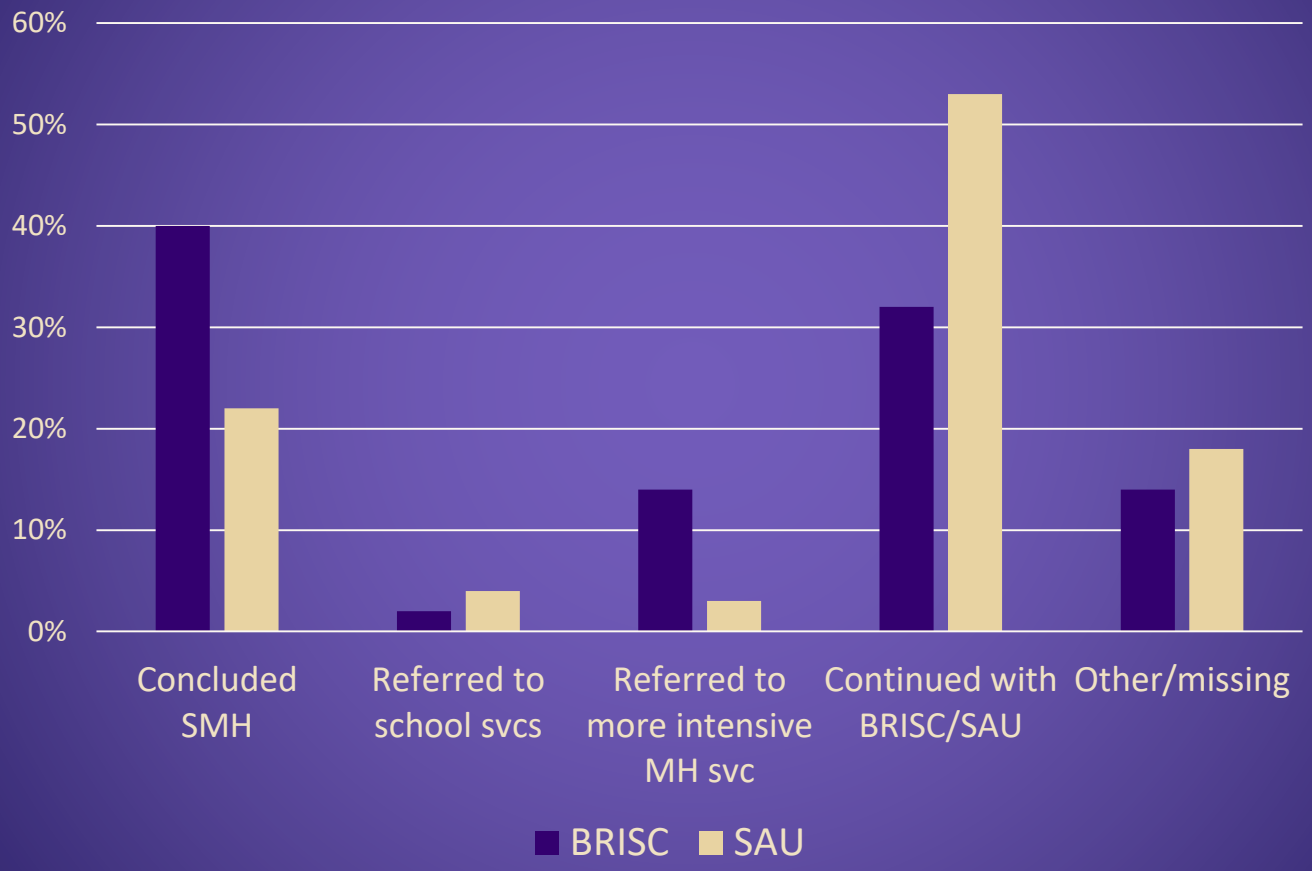
Next Steps after 4 sessions: BRISC clinicians report more treatment closure



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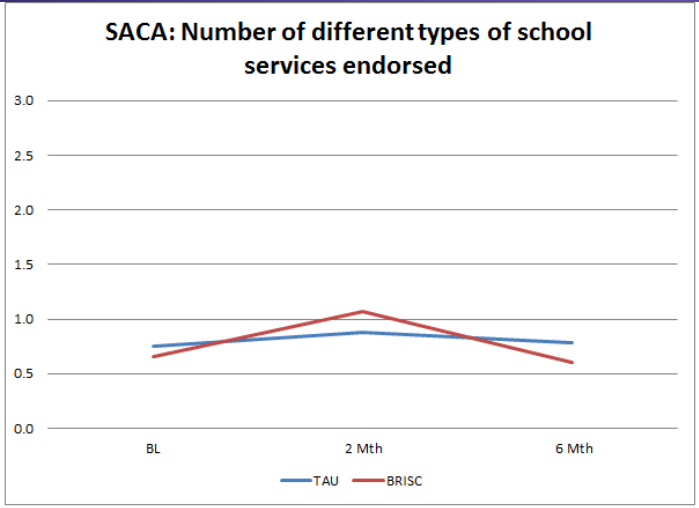
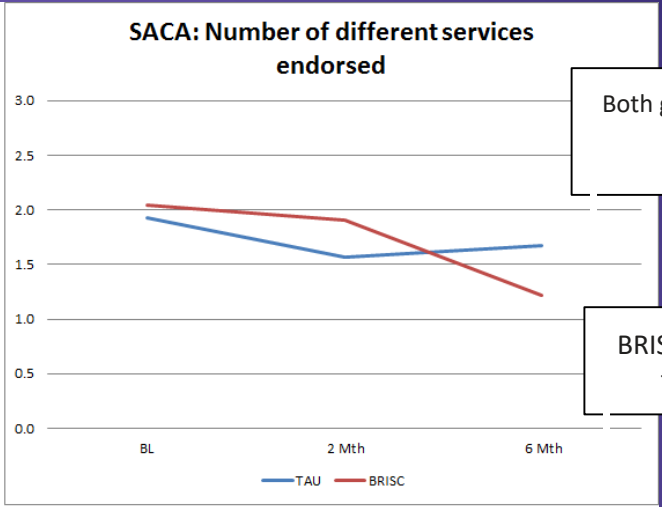
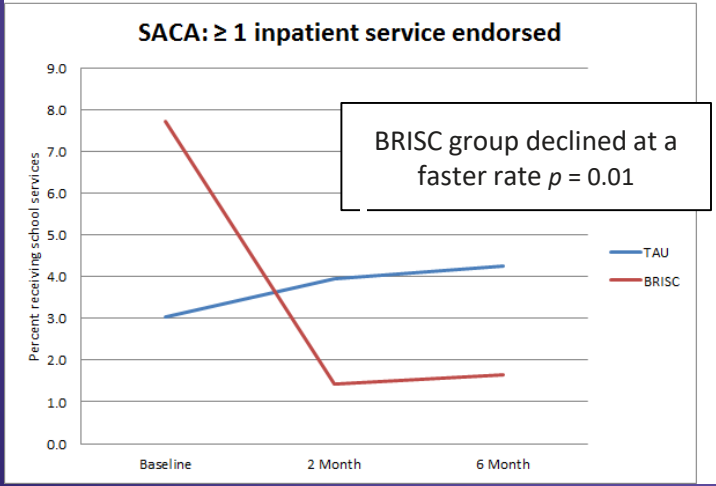
BRISC students showed less use of all MH services over time



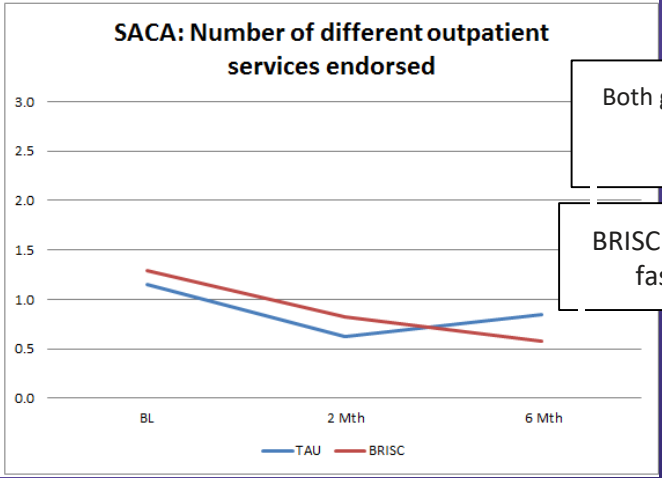


Both groups declined over time
$p < 0.05$

BRISC group declined at a faster rate $p = 0.01$



BRISC group declined at a faster rate $p = 0.01$



Both groups declined over time
$p < 0.01$

BRISC group declined at a faster rate $p = 0.01$

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Results
Clinician Perceptions

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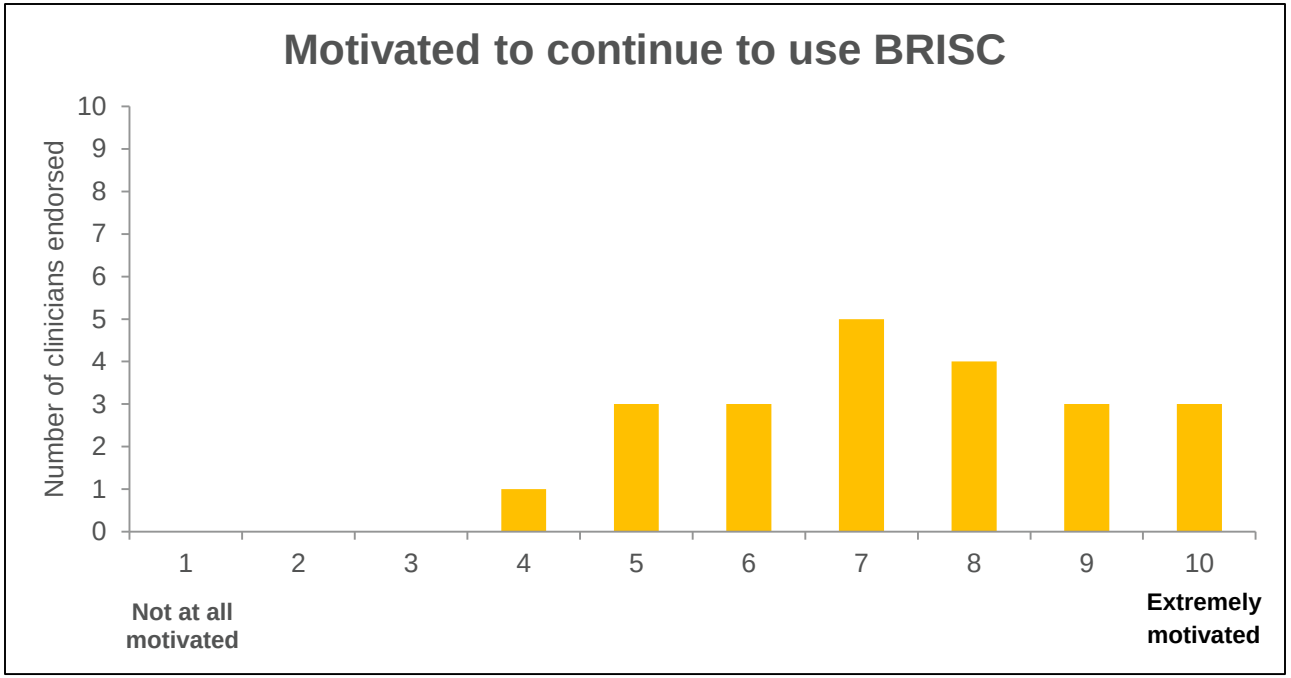
Data collected from BRISC clinicians ONLY

On a scale of 1 to 10, with **1 being not at all motivated and 10 extremely motivated**, how motivated are you to continue to use BRISC?



n = 22
Mean = 7.32
SD = ±1.76

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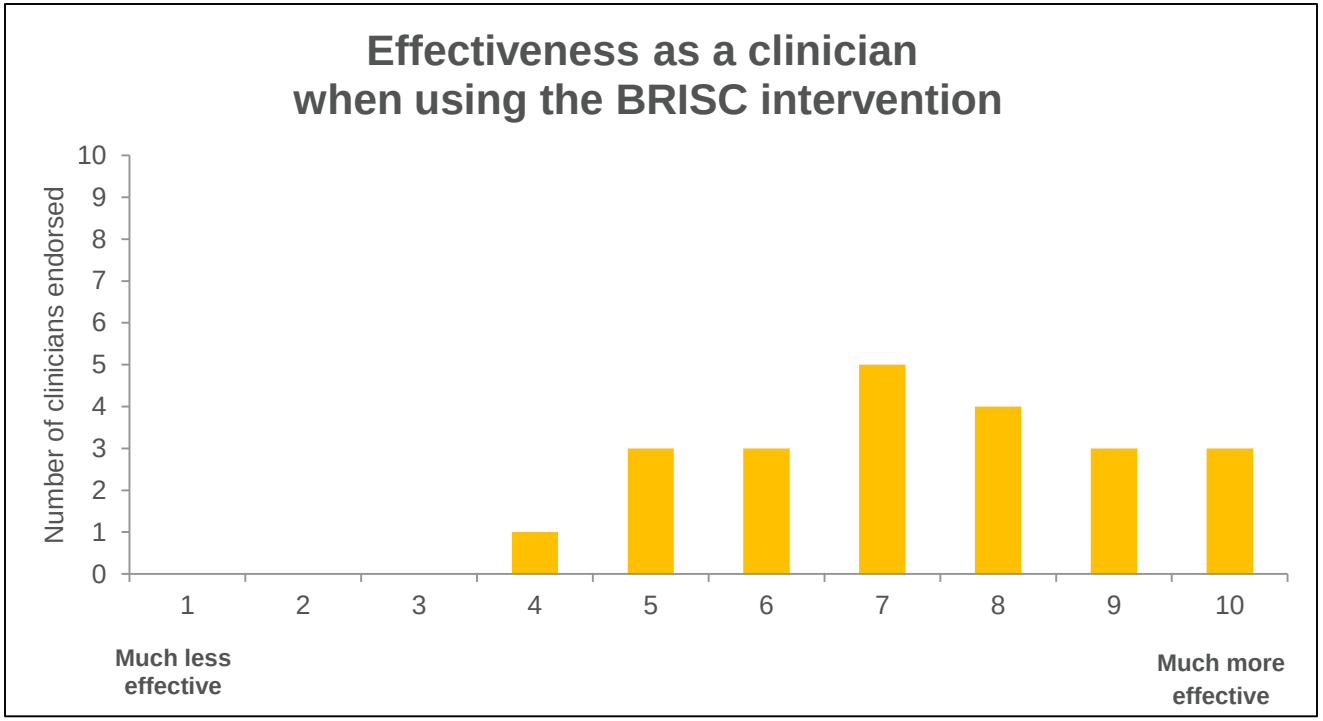
Data collected from BRISC clinicians ONLY

On a scale of 1 to 10, where **1 means much less effective and 10 means much more effective**, how would you rate your effectiveness as a clinician when you use the BRISC intervention?



n = 22
Mean = 7.27
SD = ±1.28

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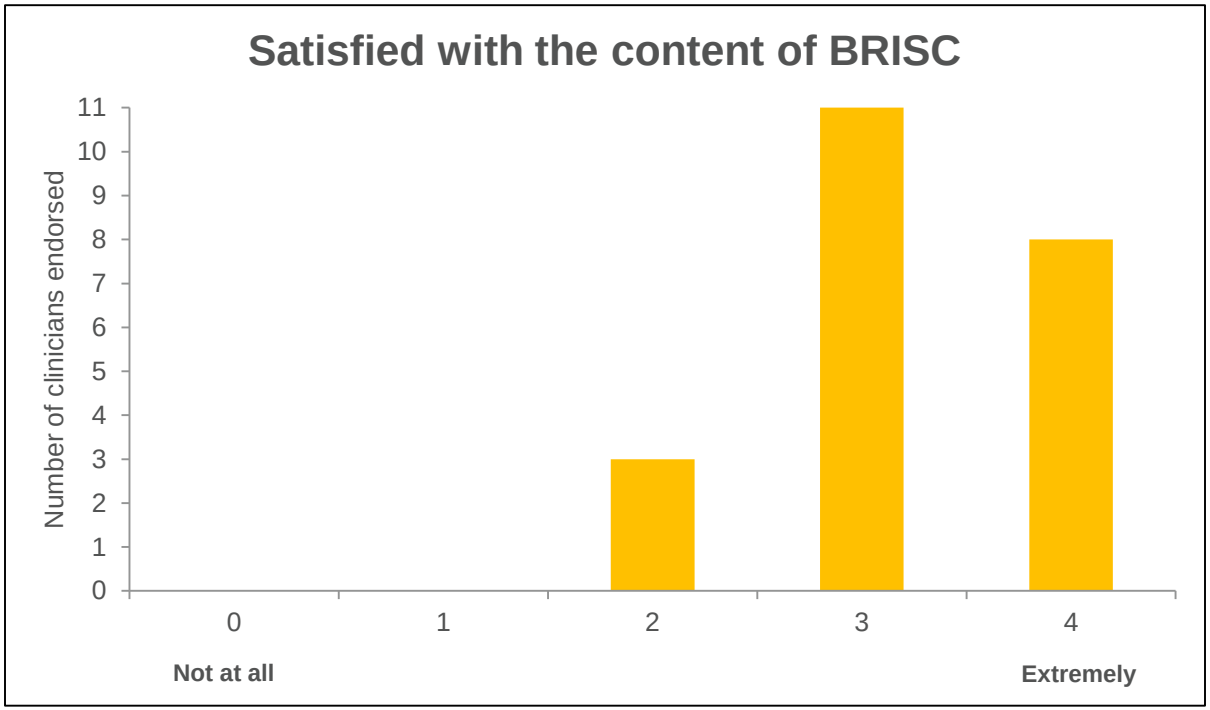
Data collected from BRISC clinicians ONLY

To what extent are you satisfied with the content of BRISC, **where 0 means not at all and 4 means extremely**?



n = 22
Mean = 3.23
SD = ±0.69

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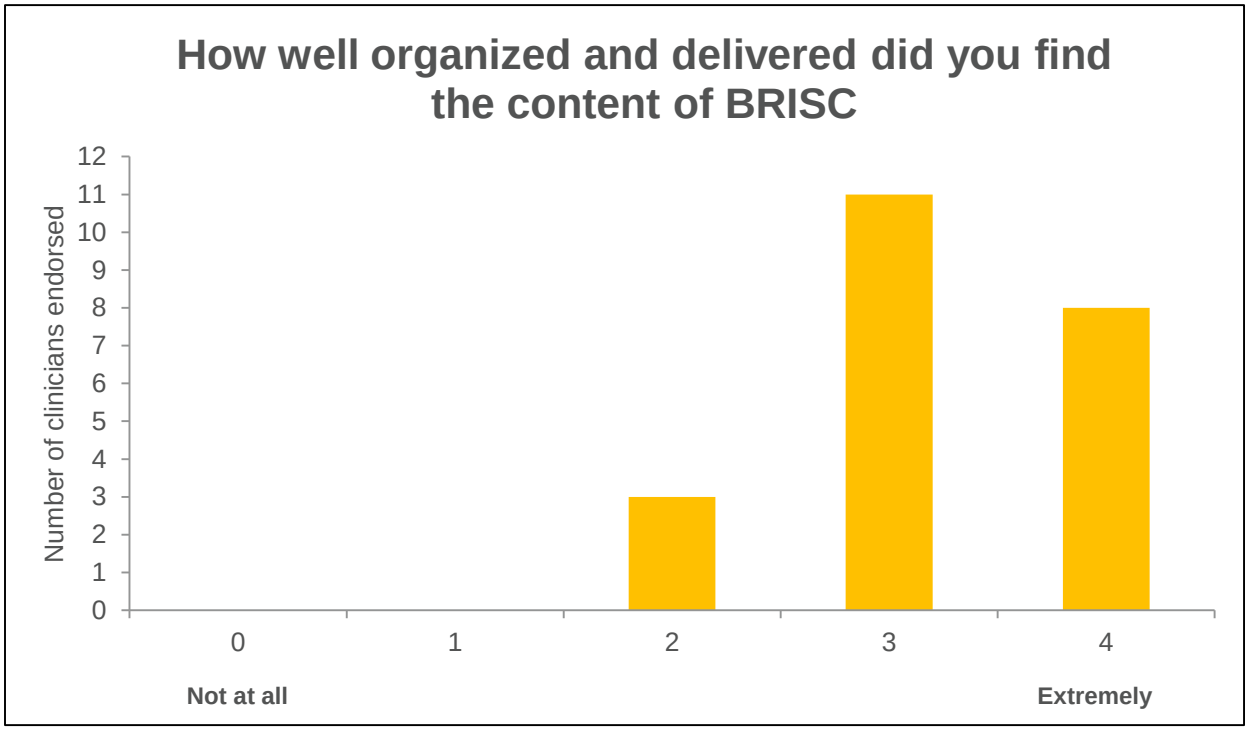
Data collected from BRISC clinicians ONLY

How well organized and delivered did you find the content of BRISC, **where 0 means not at all and 4 means extremely**?



n = 22
Mean = 3.41
SD = ±0.73

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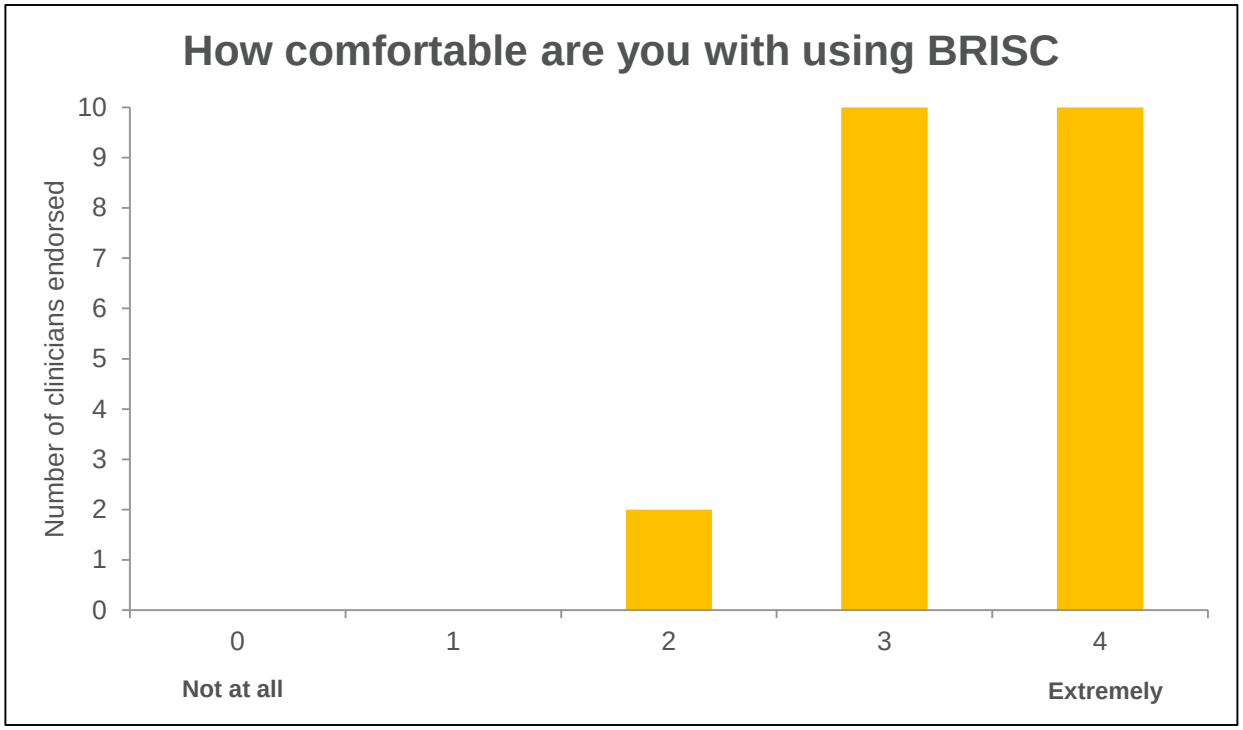
Data collected from BRISC clinicians ONLY

How comfortable are you with using BRISC, **where 0 means not at all and 4 means extremely**?



n = 22
Mean = 3.36
SD = ±0.66

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Qualitative Feedback from BRISC Clinicians

Overall comments on BRISC

- Thought it was a **great model. I love the approach.**
- I'm glad I was trained in BRISC and that I was able to use it as a **tool in my toolbox with students**.
- The students all reported that [the problem solving approach] was **useful.**
- BRISC was **a very useful way to engage students** that maybe didn't need ongoing therapy. It helped us to reach out to our referrals more effectively. The skills used were applicable for our clients, and it was a fun intervention to implement.
- I found the BRISC to be **helpful for students**, but often the students I work with need additional work rather than just Problem-Solving skills.

Comments on the Progress Monitoring focus

Monitoring was particularly positively received

- The kids seemed to respond well to it, and it helped to keep them on track and consistent.
- The assessments were easy to administer, and I think they demonstrated a lot of growth for our clients.
- Monitoring stress themselves was powerful but PHQ and GAD did not seem to make as much of an impact on the clients when processing it.

Clinician perspectives: BRISC Support & Consultation

- It was helpful to know I was on track and to hear other options for how to respond.
- The phone consultation was very helpful, hearing the challenges of the other clinicians, and receiving encouragement and advice.
- Amazing, so great to just have someone to talk to and run questions about the process by.
- Kristy was great. Helpful to answer questions and give different perspectives on how to approach model.
- Almost everything [Elizabeth] said and did was helpful. Thank you so very much Elizabeth, I felt honored to coordinate care with you. I have learned a great deal from you. I hope our paths keep crossing in life.

Qualitative Feedback from BRISC Clinicians

Overall comments on BRISC: Concerns

A representative comment from many clinicians:

- I think that this is a good intervention for the school guidance counselors, who are dealing with the academic challenges of the students. Not as good for the students who are experiencing severe mental health issues.
- BRISC seems more appropriate for social workers, school counselors and therapists working for a level 2 students. It is a good triage tool but its helpfulness if minimized when working with a level 3 student.

Challenges with Consultation

- After having gone through one full 4 session series with a client it was pretty easy and calls no longer felt necessary. Would have preferred to have the option of contacting Elizabeth for feedback as needed or every other month, instead of needing to clear calendars for calls no matter what.
- It was hard to take time out of the day for the consultation, I have a lot of students on my caseload.
- Often it took away time from other aspects of my job.

Recommendations for BRISC support in the future

Most clinicians thought the approach was useful as is, but some had suggestions:

- Maybe more BRISC training days sprinkled throughout the study
- It would have been helpful to potentially hear other recorded BRISC sessions from other clinicians and see how they approached certain topics of the curriculum
- Fewer consult call requirements
- Have more time slots for the coaching calls. Also, somehow, make the initial interviews easier to coordinate
- Make the training easier and the session instructions simpler
- Clearly communicate student requirements/qualifications and be more flexible with some of the qualifications

Results
Student Outcomes

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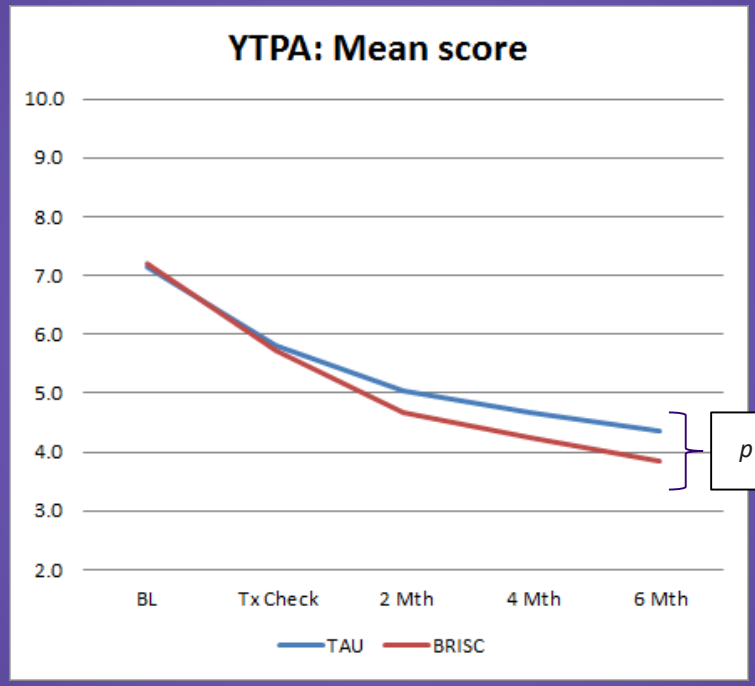
Youth Top Problems Assessment (YTPA)



Both groups improved over time
$p < 0.01$

BRISC group improved at a faster rate
$p < 0.01$

$p < 0.01$

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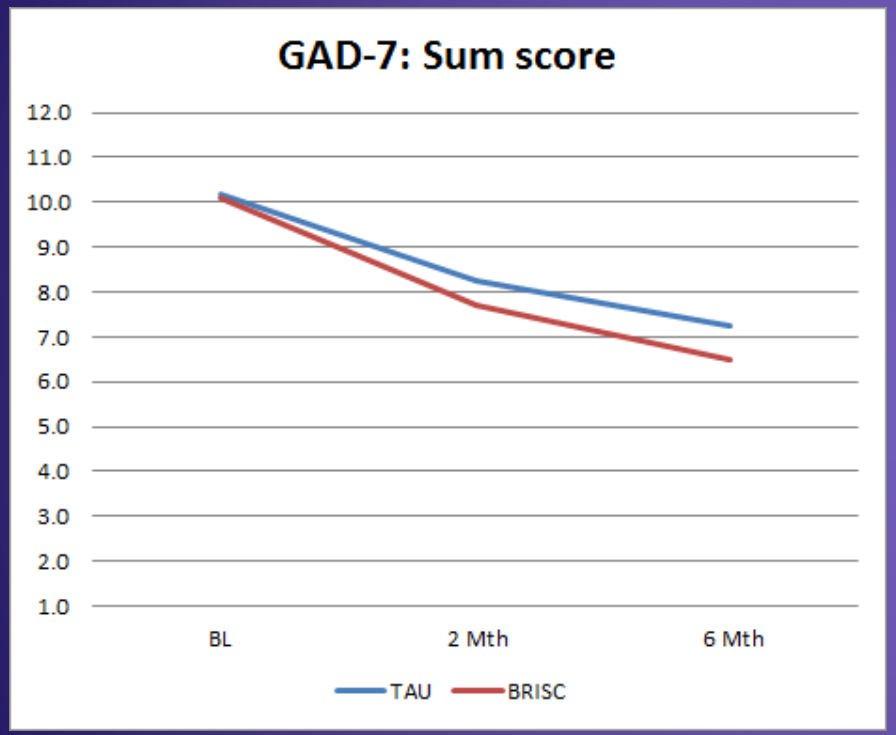
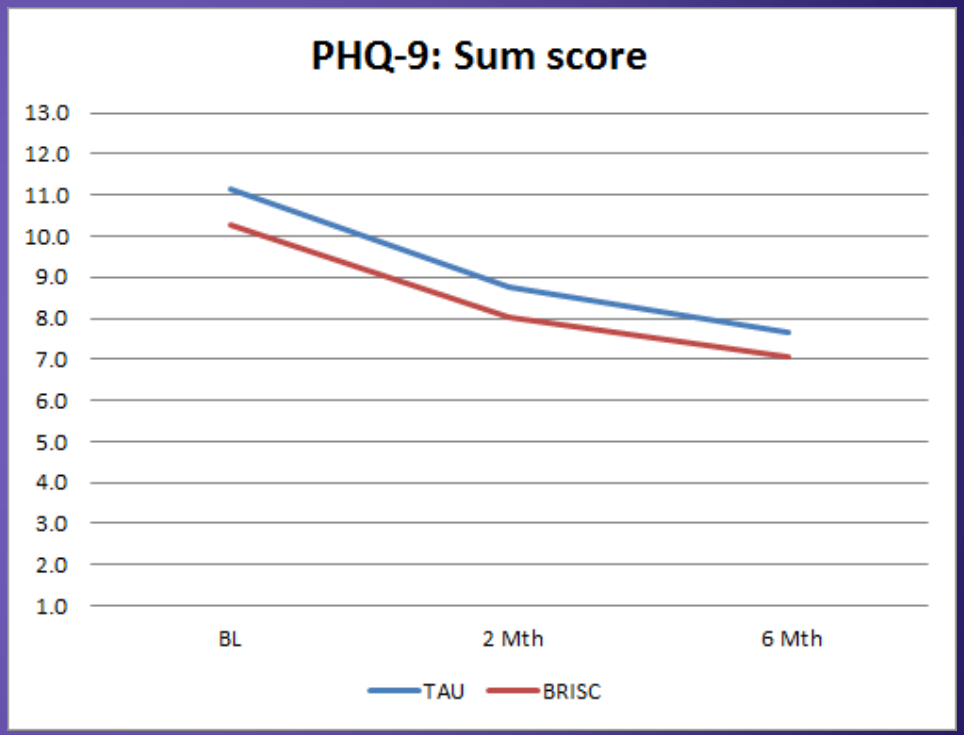
Generalized Anxiety Disorder 7-item (GAD-7) & Patient Health Questionnaire (PHQ-9)



Both groups improved over time
$p < 0.01$



Both groups improved over time
$p < 0.01$

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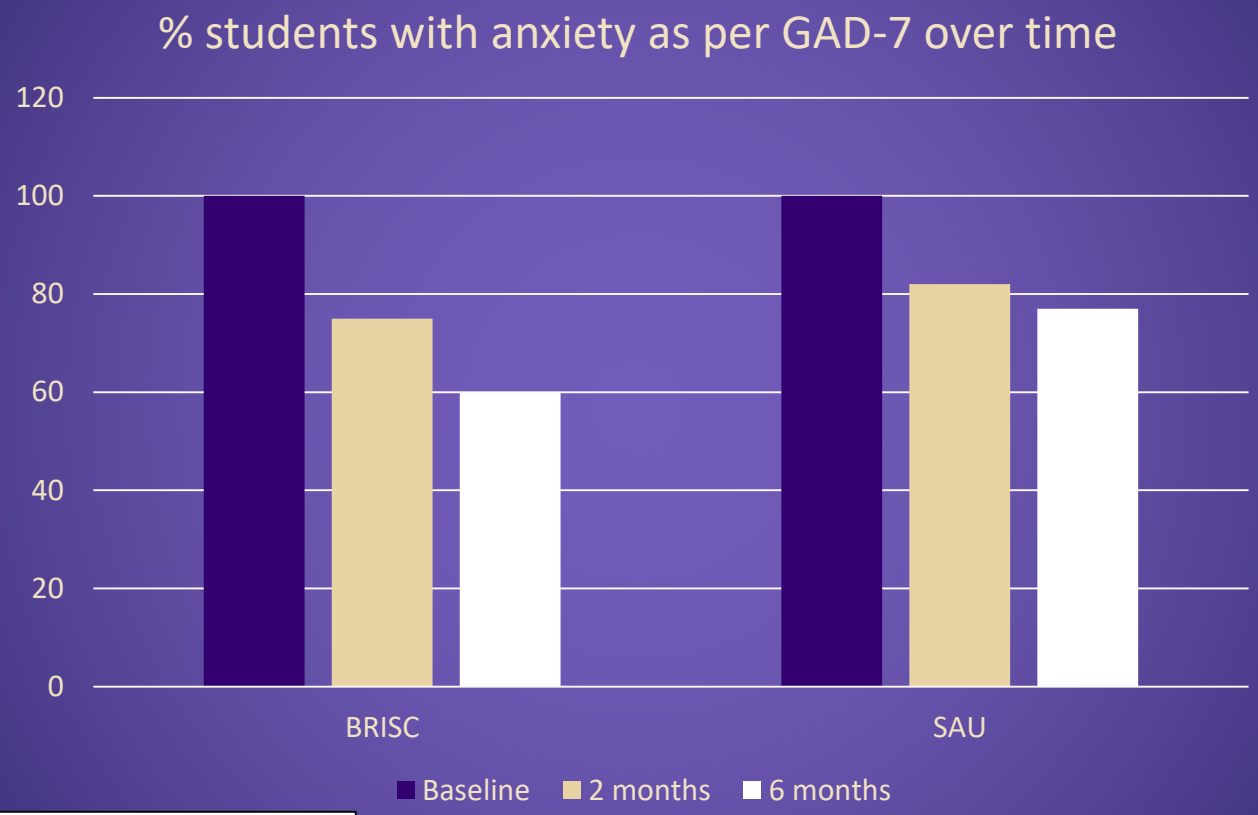
Among students with Anxiety at baseline, anxiety improved more for BRISC group



BRISC students less likely to have anxiety at 6 months at p<.05

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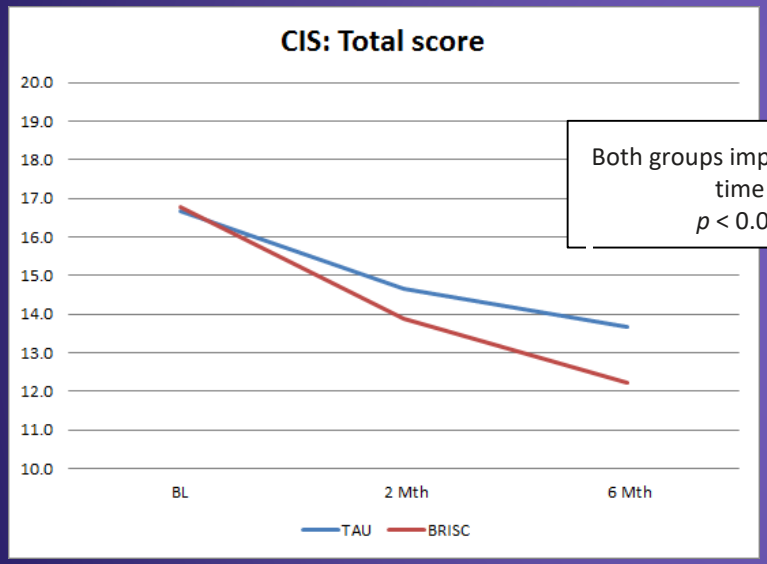
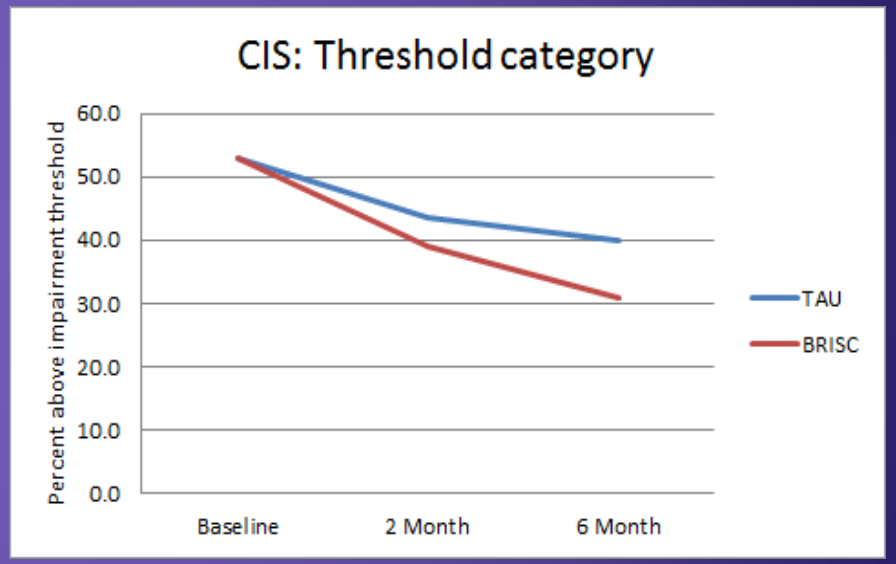
Columbia Impairment Scale (CIS)



Both groups improved over time
$p < 0.01$



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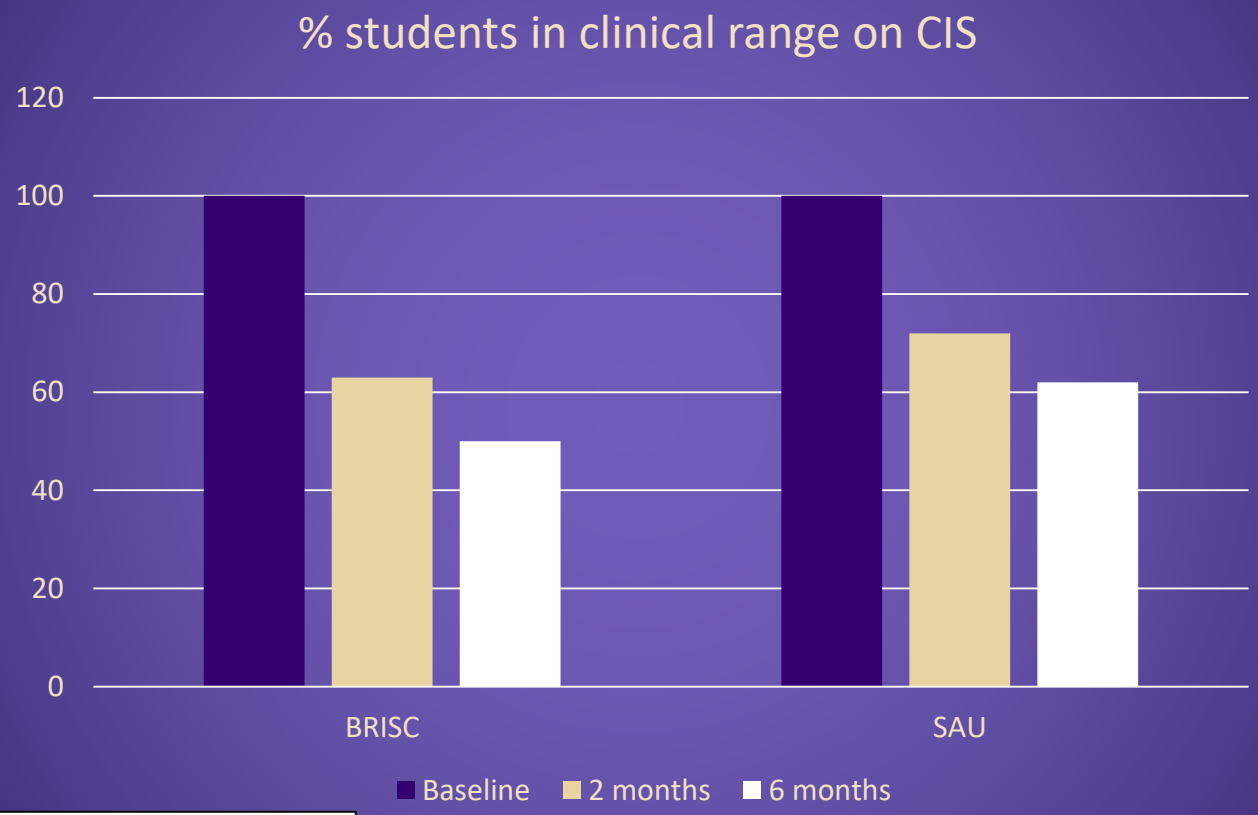
Among students with clinical levels of impairment, greater improvement for BRISC group



BRISC students less likely to be in clinical range at 6 months at p=.07

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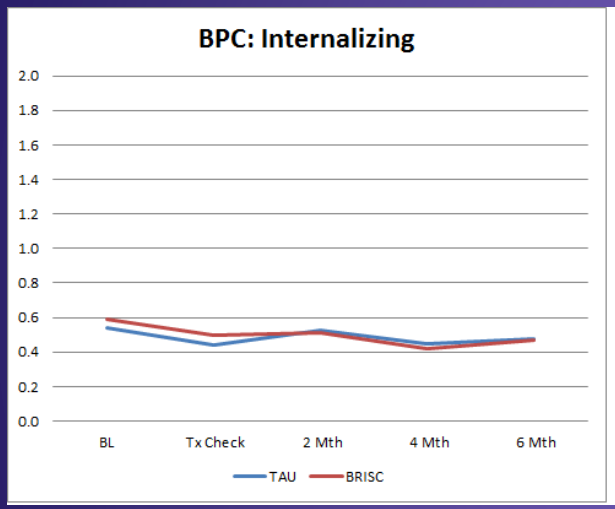
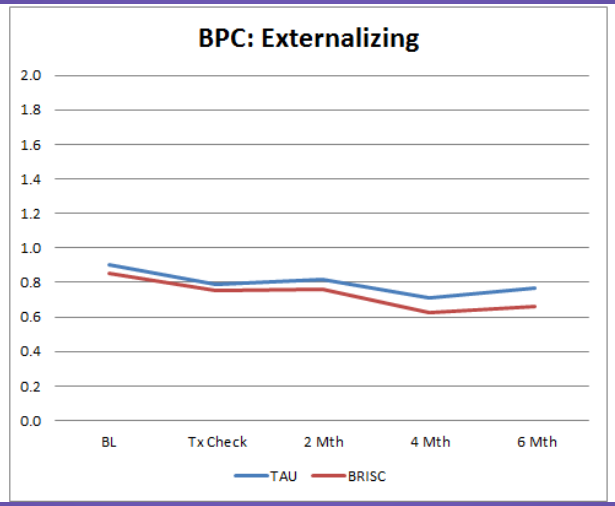
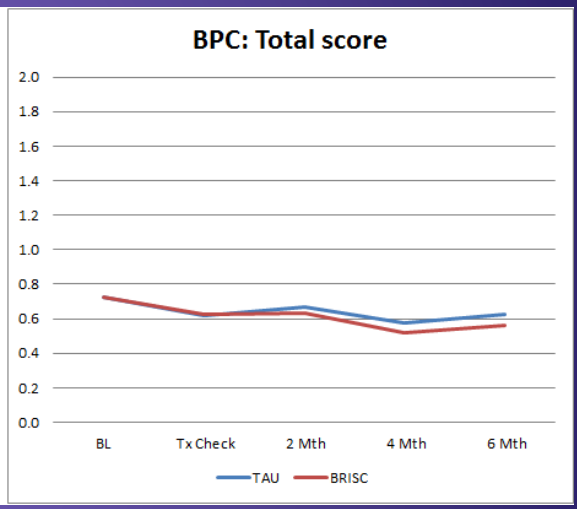
Brief Problem Checklist (BPC)



Both groups improved over time
$p < 0.05$



Both groups improved over time
$p < 0.01$



Both groups improved over time
$p < 0.01$

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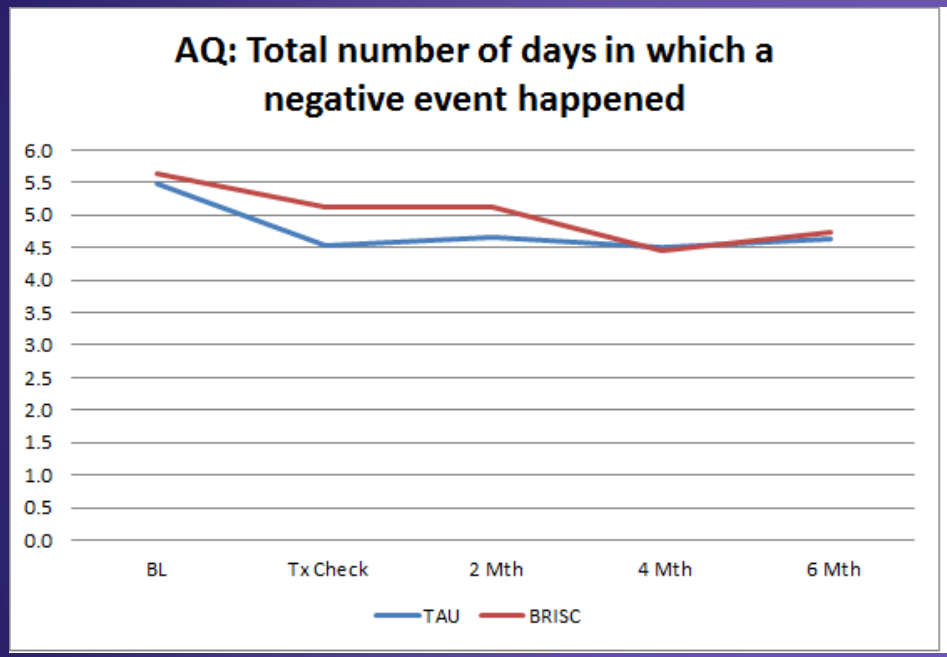
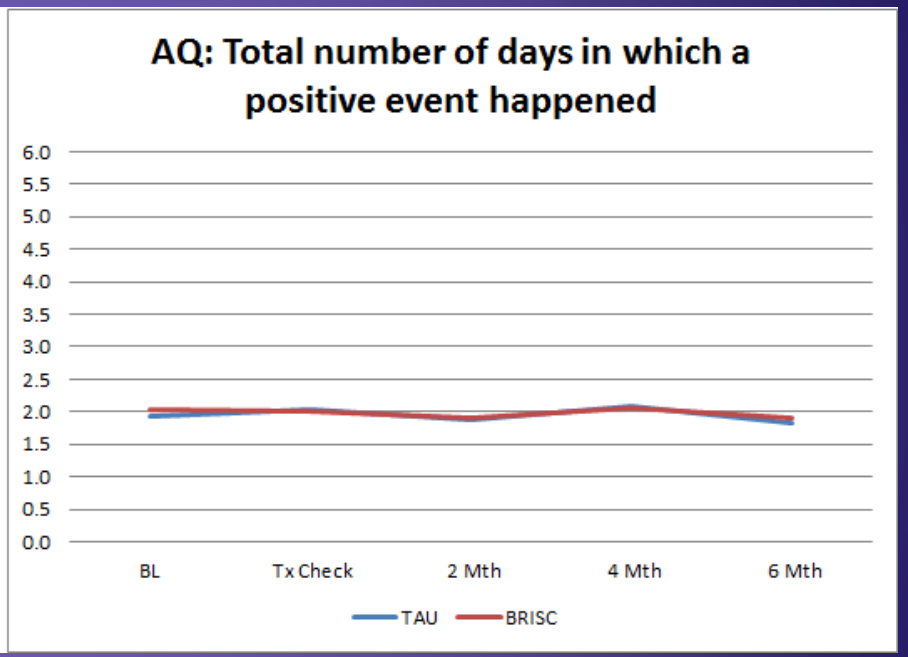
Academic Questionnaire (AQ)





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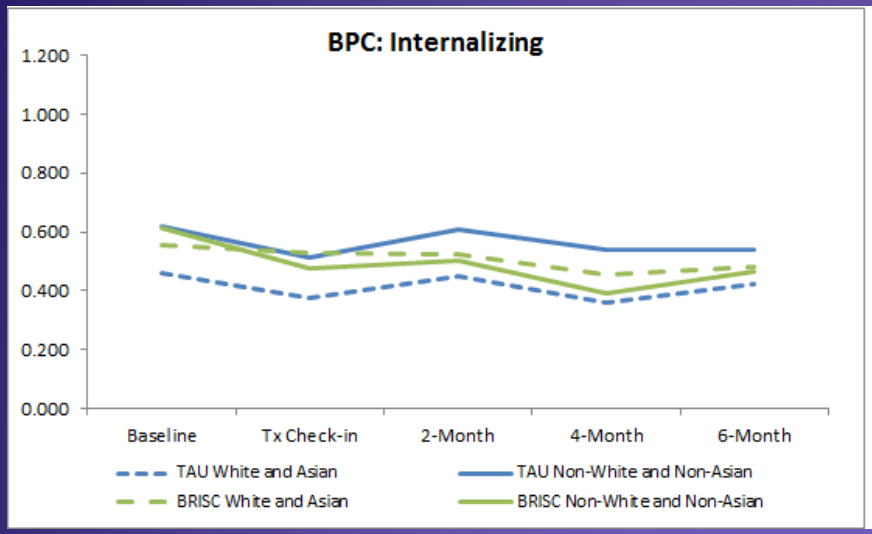
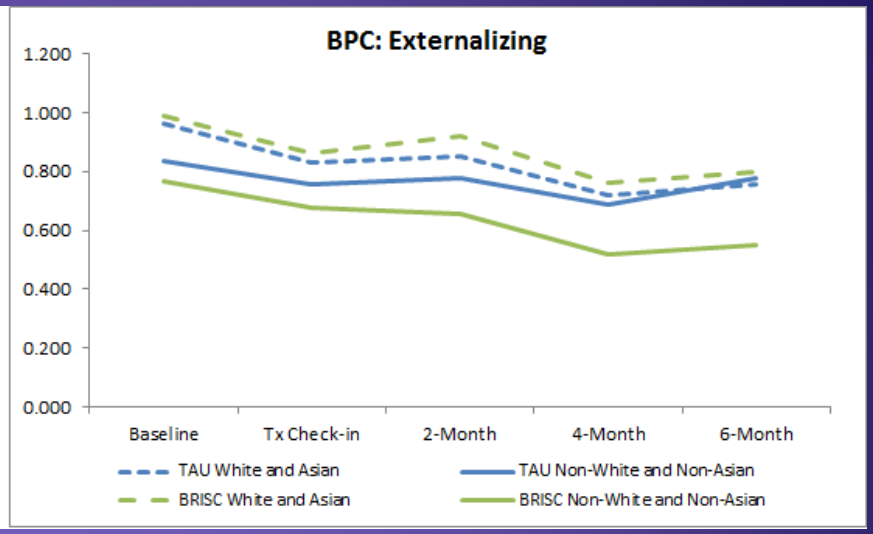
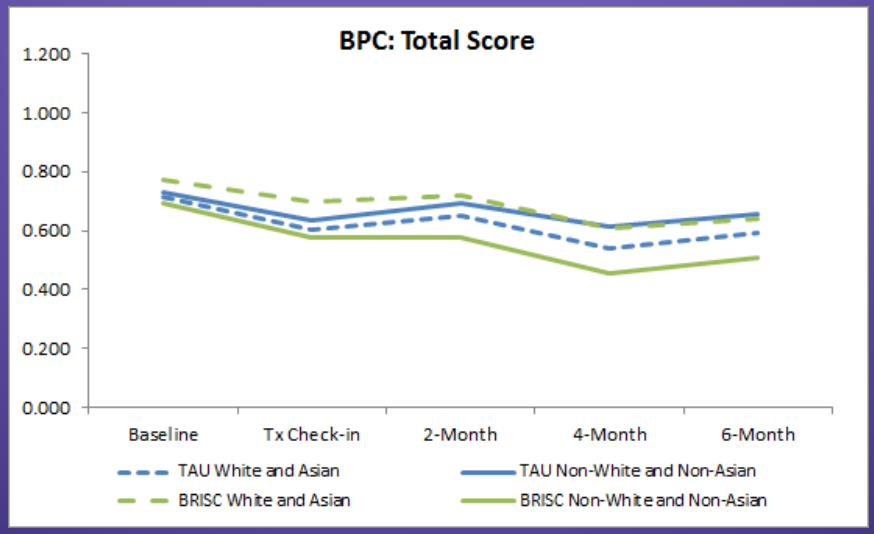
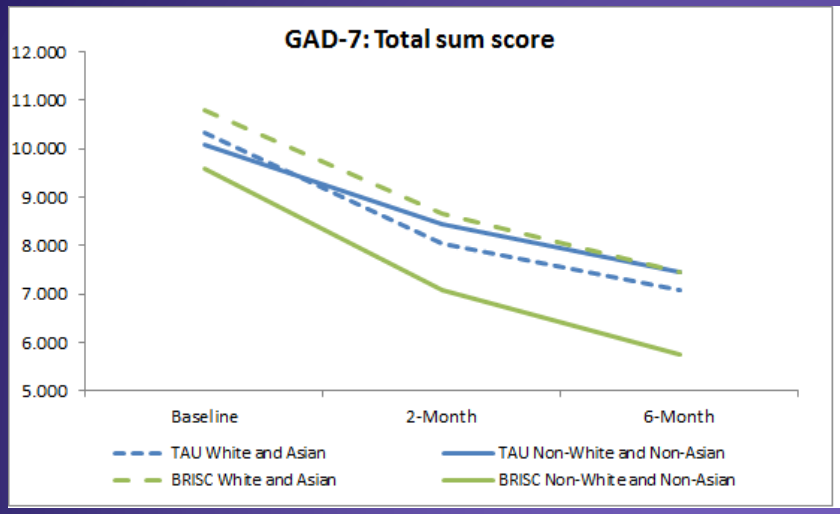
Race x Condition - BPC

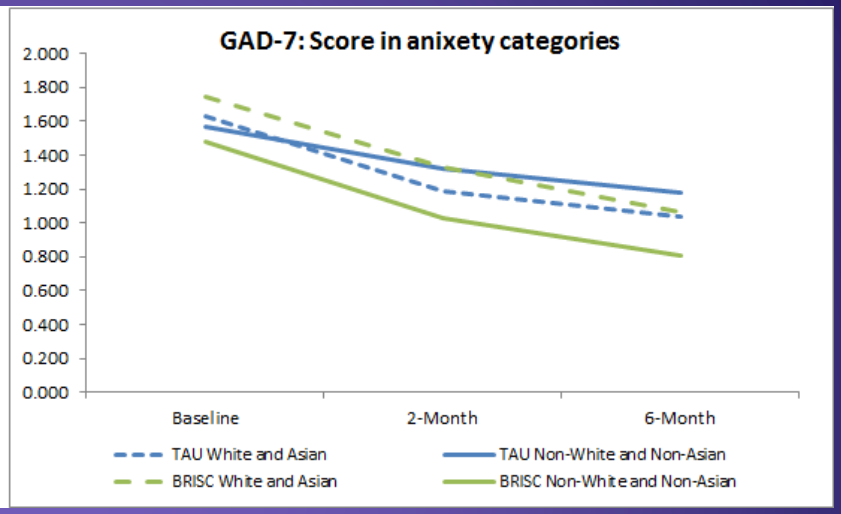


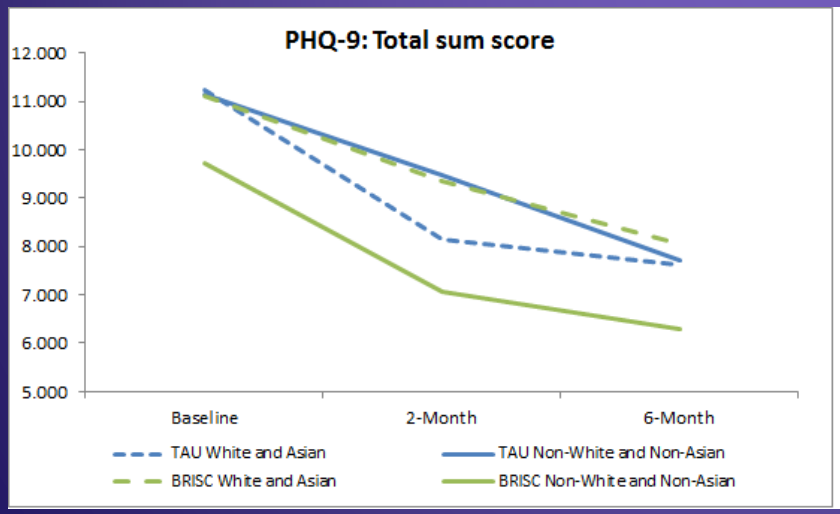


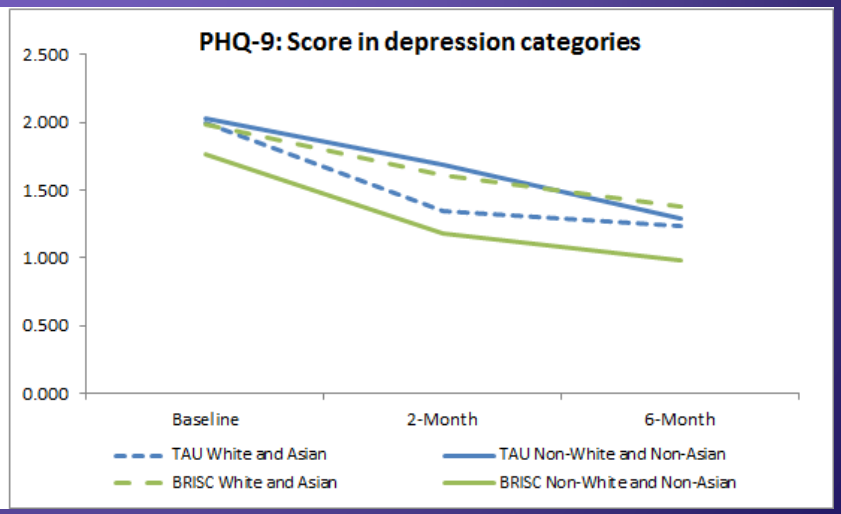


Race x Condition - GAD-7 & PHQ-9









Discussion

Findings, implications, next steps

SMH clinicians provided mostly positive feedback on BRISC

- SMH Clinicians assigned to BRISC:
  - Were able to provide BRISC with fidelity
  - Gave positive ratings of feasibility, learnability, acceptability
    - Some clinicians concerned about applicability to students with high levels of need
  - Reported students responded well to engagement, assessment, problem solving activities
  - Reported significantly greater rates of treatment completion after 4 sessions
    - …and higher rates of referral to specialized/intensive MH

Student level outcomes of BRISC were encouraging

- Students assigned to BRISC schools/clinicians:
  - Were more likely to report receiving SMH services at 2 mos
  - Were less likely to still be in SMH at 6 mos
  - Were less likely to receive a range of other MH services (incl. community and inpt) at 6 mos
  - Reported significantly greater “top problem” resolution over time
  - Were significantly more likely to move out of clinical range for anxiety and MH impairment

Implications

- Training SMH providers on a structured engagement, assessment, brief intervention, and triage strategy may promote greater efficiency, problem resolution, and MH outcomes
  - However, fit between this strategy and the practitioner's role is key
  - Ensuring "fit" to the school and MH organization is critical – as is developing readiness

Future Directions

- Analyses remain:
  - Differences in treatment processes between groups
  - Analyses by SMH clinician fidelity, youth/parent/school characteristics
- Refinement of BRISC model
  - Including adaptation to school staff
- Development of easily accessible training and consultation options

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Thank you!

- ebruns@uw.edu
- shoover@som.umaryland.edu
- Mark.sander@Hennepin.us

- http://depts.Washington.edu/uwsmart
- @SMARTctr; @ericjbruns