BRINGING RESEARCH AND PRACTICE TOGETHER TO IMPROVE STUDENT OUTCOMES

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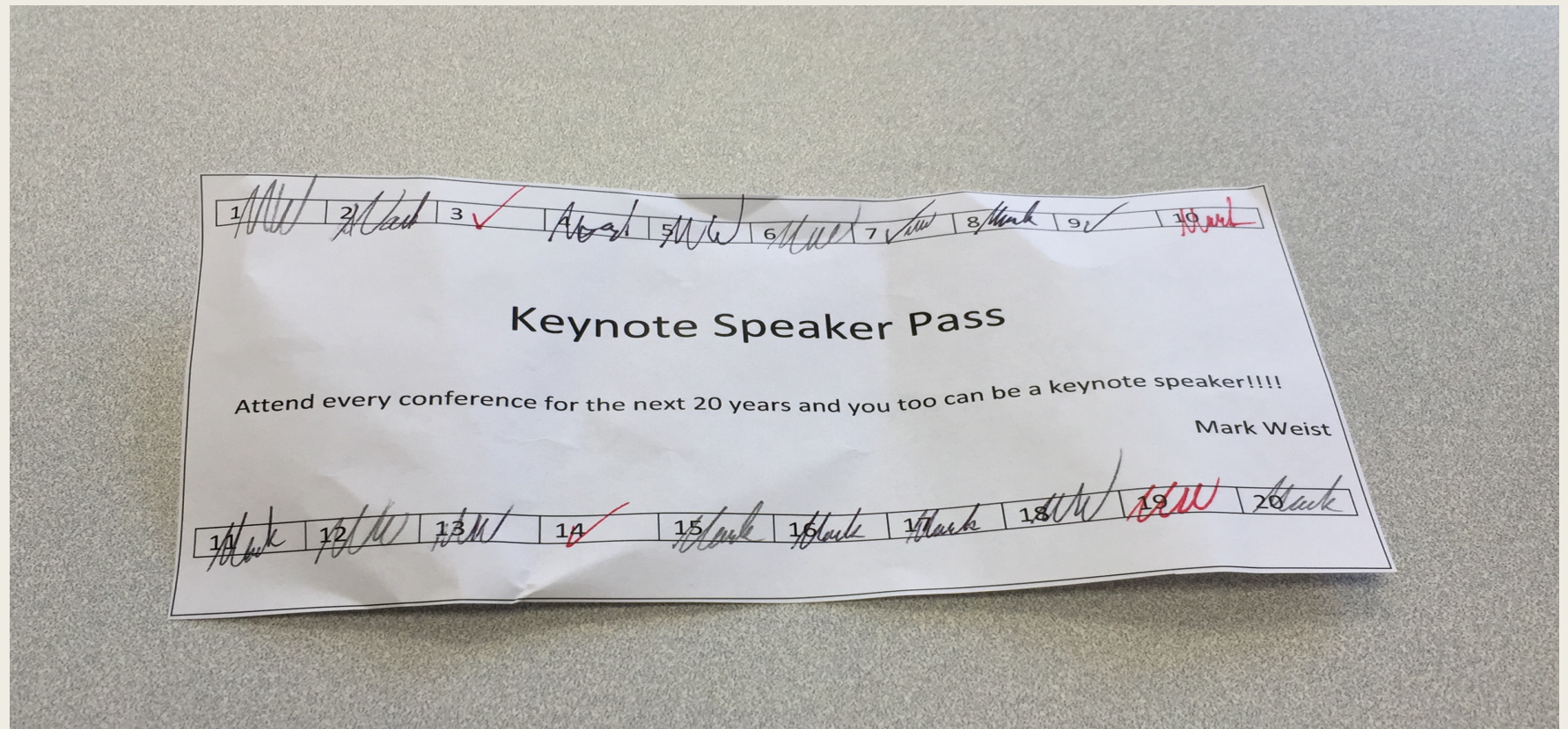
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How does one get selected to be a keynote speaker?

What are the three necessary ingredients to providing effective services?

Interventions get to the student

If you do not maintain the bridge/relationship...

Of course, you need to have boundaries

If you try to accomplish too much at once...

The third necessary ingredient is you!!!

Three Ingredients for Providing Effective Services

- **Relationship** – the student cares what you think
- **Interventions** – best practices over time
- **Self** – take care of yourself

Predicts Good Outcome in Challenging Horizons Program

- Out of five outcome measures assessing academic functioning, which variables predicted positive response to treatment?
- Middle school students with ADHD

Langberg, Evans et al., (under review)

ADHD medication use	
Counselor Ratings of Relationship with Student	
Student Ratings of Relationship with Counselor	
Dose	
Oppositional and defiant behavior	
Parent – Adolescent Conflict/Parent Stress	
Symptoms of anxiety	
Male/Female	

Predicts Good Outcome in Challenging Horizons Program

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Langberg, Evans et al., (under review)

ADHD medication use	
Counselor Ratings of Relationship with Student	0
Student Ratings of Relationship with Counselor	
Dose	
Oppositional and defiant behavior	0
Parent – Adolescent Conflict/Parent Stress	
Symptoms of anxiety	
Male/Female	

Predicts Good Outcome in Challenging Horizons Program

- Out of **five** outcome measures assessing academic functioning, which variables predicted positive response to treatment?
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Langberg, Evans et al., (under review)

ADHD medication use	1
Counselor Ratings of Relationship with Student	0
Student Ratings of Relationship with Counselor	
Dose	
Oppositional and defiant behavior	0
Parent – Adolescent Conflict/Parent Stress	
Symptoms of anxiety	1
Male/Female	mixed

Predicts Good Outcome in Challenging Horizons Program

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Langberg, Evans et al., (under review)

ADHD medication use	1
Counselor Ratings of Relationship with Student	0
Student Ratings of Relationship with Counselor	4
Dose	2
Oppositional and defiant behavior	0
Parent – Adolescent Conflict/Parent Stress	3
Symptoms of anxiety	1
Male/Female	mixed

Working Alliance Inventory

As a result of working with my counselor I am clearer as to how I might be able to change.
What I am doing in the CHP gives me new ways of looking at my problems.
I believe that my counselor likes me.
My counselor and I work together on setting goals.
My counselor and I respect each other.
My counselor and I are working towards goals that we both agree on.
I feel that my counselor appreciates me.
My counselor and I agree about the steps to be taken to improve my situation.
I feel that the things I do in the CHP will help me to accomplish the changes that I want.
My counselor and I have a good understanding of the kind of changes that would be good for me.
I am confident in the counselor's ability to help.
I believe the way we are working with my problem is correct.

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How do you build a bridge?

■ Student must believe that:

– *We agree on goals and work together to achieve them*

– *My counselor likes me, appreciates me and respects me*

Interventions

- Service Deliver Model
- Implementation
- CHP

Life Course Approach

Prioritize services that <u>enhance the skills</u> of the student to <u>independently meet age-appropriate expectations</u> for academics, interpersonal, and vocational functioning.

Evans, Owens, Mautone, DuPaul & Power, 2014; Evans, Rybak et al., 2014

Important Definitions

- **<u>Interventions:</u>** strategies to develop or improve knowledge, skills, behaviors, cognitions, or emotions.

- **<u>Accommodations:</u>** strategy that holds a student to the same standard as peers but provides a *differential boost* (i.e., more benefit to those with a disability than those without) to mediate the impact of the disability on access to the curriculum (i.e., *level the playing field*).
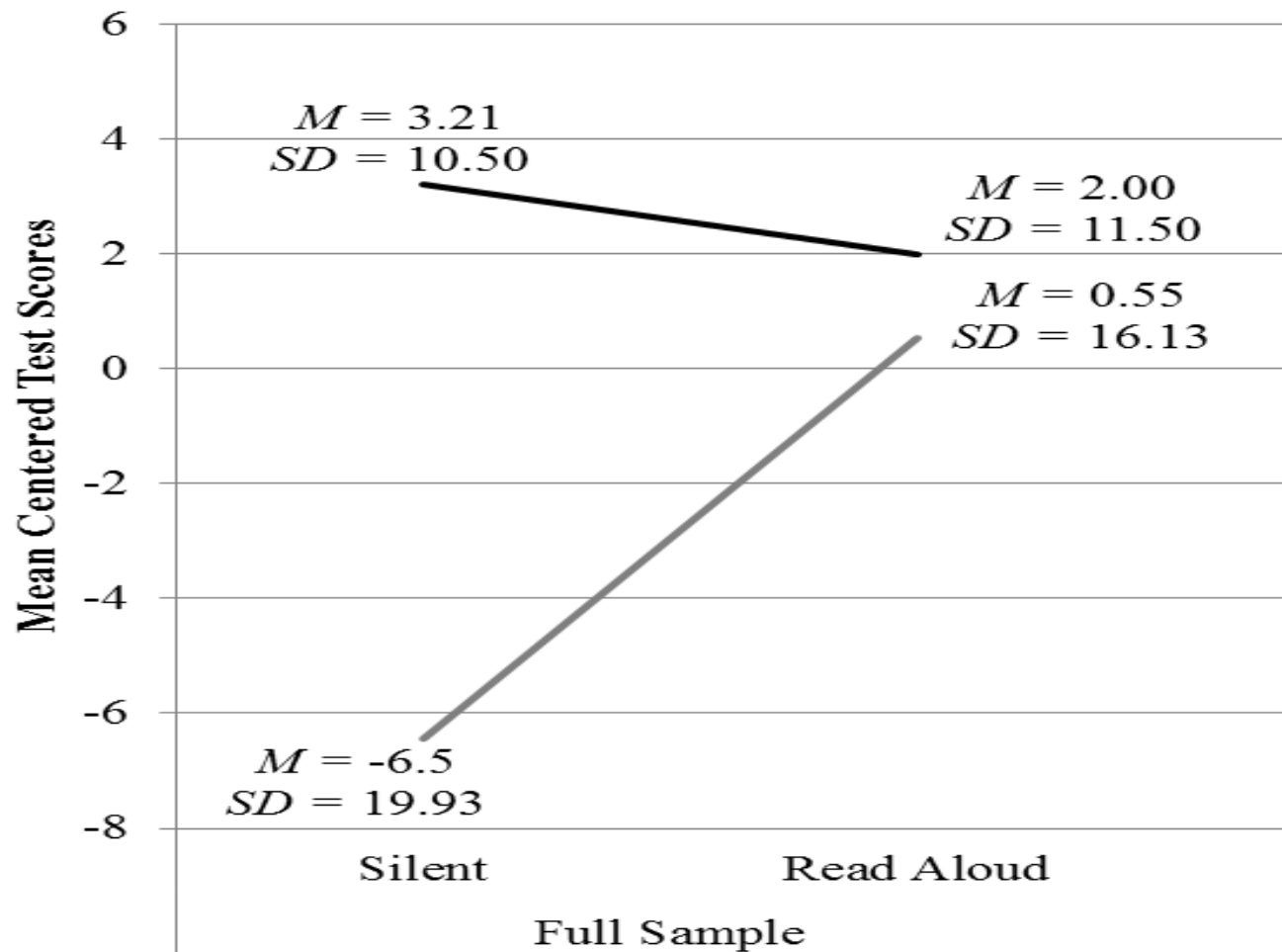
Harrison, Bunford, Evans & Owens, 2013
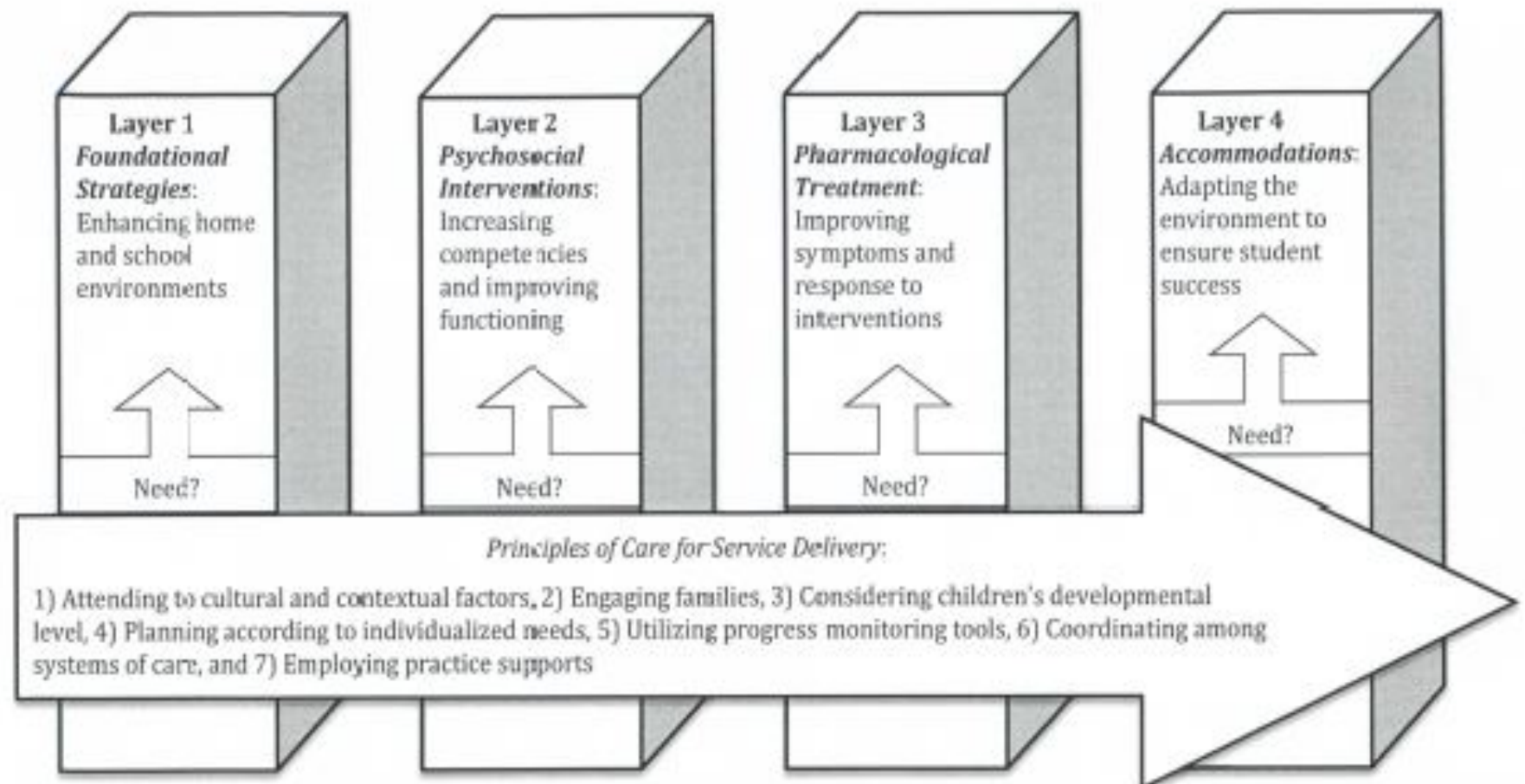
Differential Boost Examples

Reading Tests Aloud

- **Procedures:** Read tests of quizzes to students individually or in small groups

- **Theory:** Students with ADHD have problems with attention to detail and sustaining attention so reading the test aloud increases the likelihood that the student will interpret the question correctly and maintain attention over time.

Reading Tests Aloud (Spiel et al., 2015)

Life Course Model

Layer 1
Foundational Strategies: Enhancing home and school environments
Need?

Layer 2
Psychosocial Interventions: Increasing competencies and improving functioning
Need?

Layer 3
Pharmacological Treatment: Improving symptoms and response to interventions
Need?

Layer 4
Accommodations: Adapting the environment to ensure student success
Need?

Principles of Care for Service Delivery:

1) Attending to cultural and contextual factors, 2) Engaging families, 3) Considering children's developmental level, 4) Planning according to individualized needs, 5) Utilizing progress monitoring tools, 6) Coordinating among systems of care, and 7) Employing practice supports

Evans, Owens et al., 2014; Evans, Rybak et al., 2014; Harrison et al., 2013

Completing Work Within Time Limit

- **Extended Time**
  - *Read and answer questions*
  - *Two Conditions*
  - A – 20 minutes
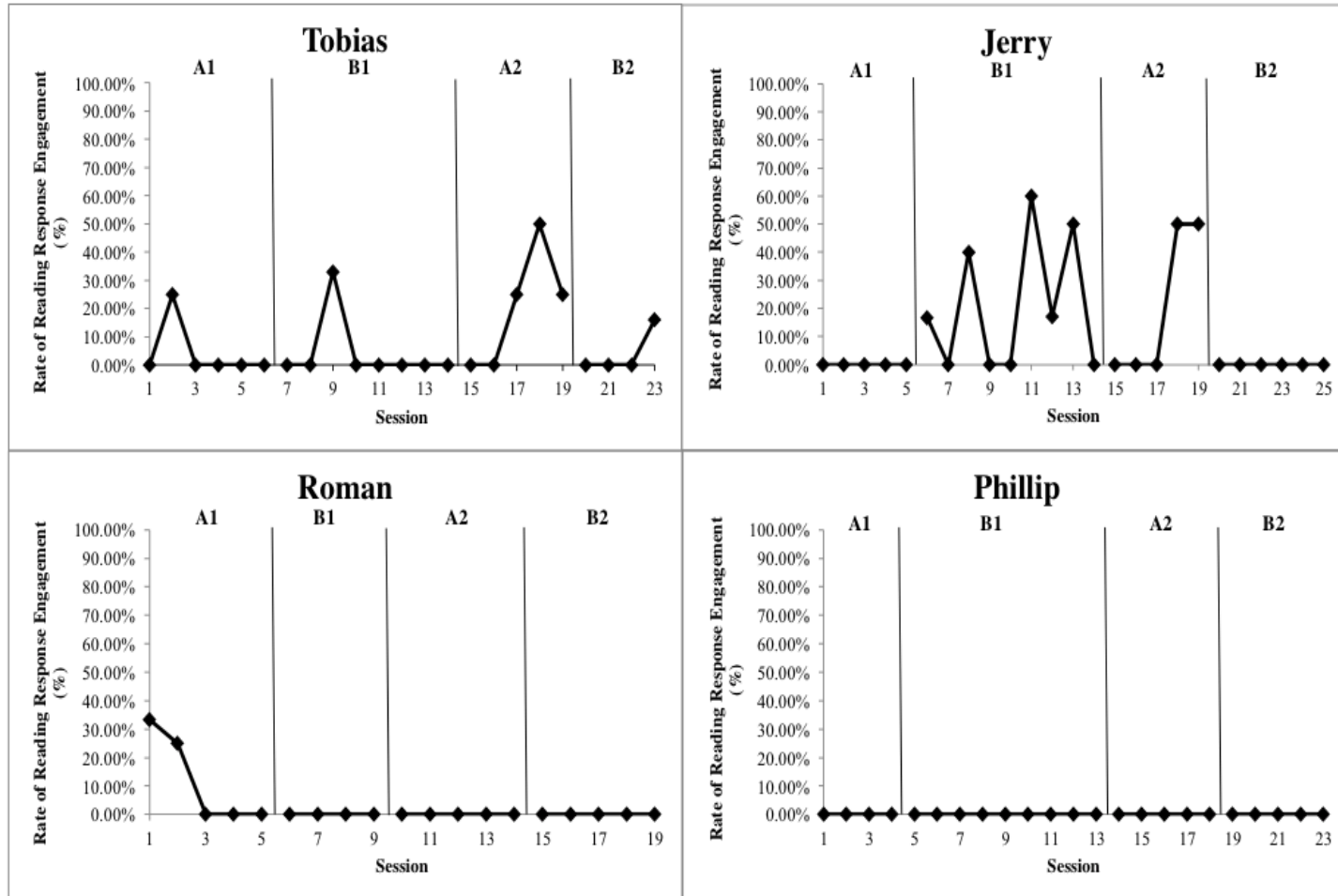 - B – 30 minutes

- **Self-Management**
  - *Same reading task*
  - *Used EpicWin® on iPad*
  - *Every 5 minutes buzzed*
  - Student instructed to push and hold one of two buttons
  - Success led to points in on-line app (not for work completion)

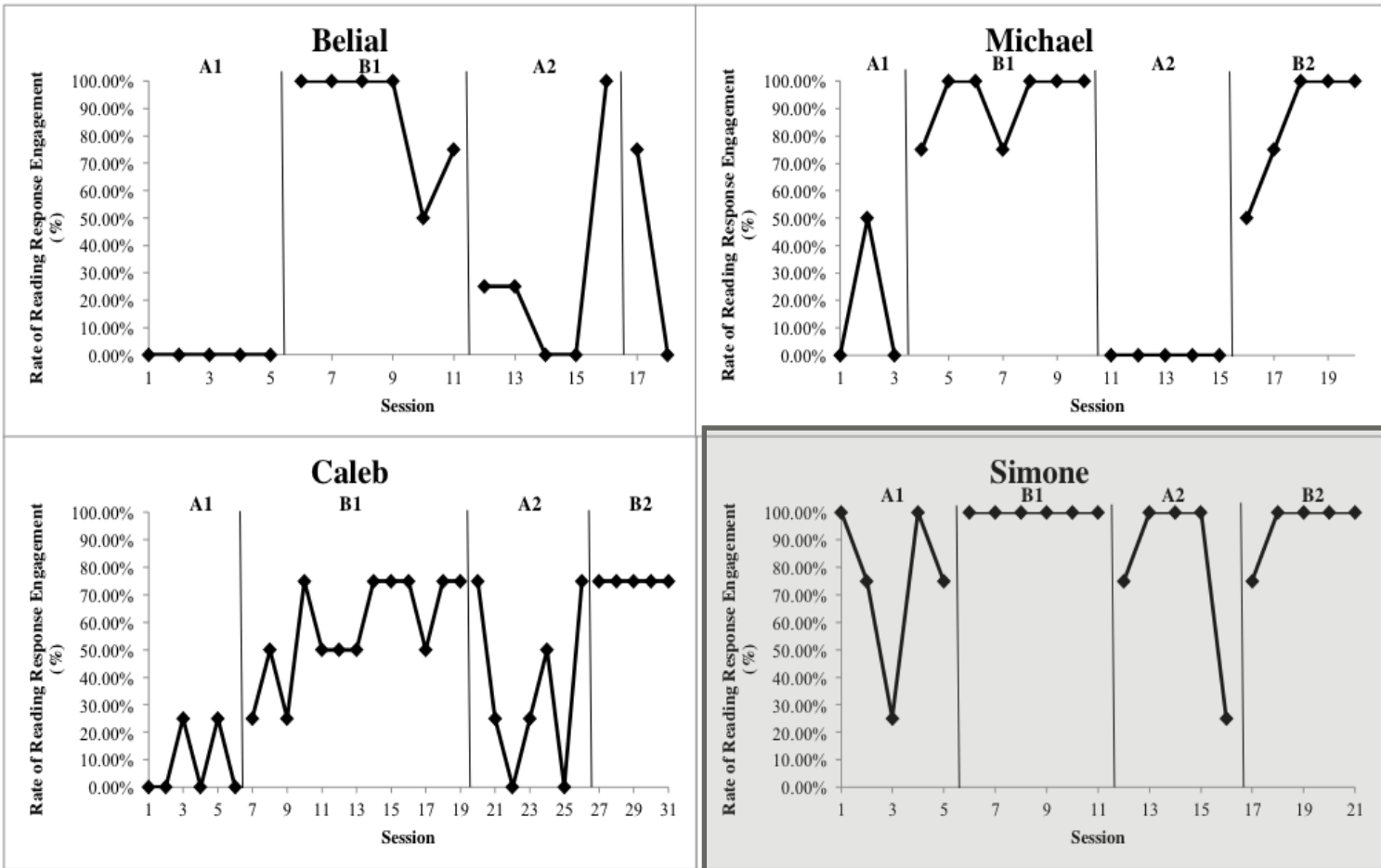Harrison, Kwong & Evans (under review)

Extended Time Results

Study 1: Extended Time and Reading Response Engagement

Self-Management Results

Study 2: Self-Management and Reading Response Engagement

Conclusions

- Self-management improves skills for timely task completion so students may be able to meet age-appropriate expectations

- Self-management may even generalize to situations without automated prompts

- Extended time does not improve skills

Implementation

- Training
- Support
- Priority

Training of SMHPs

- The vast majority of school and community based mental health are unfamiliar with best practices for screening and preventing substance use (Evans et al., 2013).

- Less than half of directors of graduate school psychology programs reported being experienced with any one of the 17 evidence-based interventions listed in the survey (Shernoff et al., 2003).

Training of SMHPs

- Studies report self-report data
- *"All of us talk to clients about what they think and what they do so everyone does cognitive-behavioral therapy – right?"*
- *Are self-report data inflated by not knowing what they don't know?*

- Repeat surveys, but ask questions that could help us understand the accuracy of their self-report
- *Participants – 183 SMHPs in high schools across five states*
- *Surveyed about familiarity with evidence-based practices*

Results of Survey with 140 School Counselors

Technique	Use this intervention	Familiar with it
Cognitive Behavior Therapy for Depression	48.8%	47.1%
Cognitive Behavior Therapy for Anxiety and Worry	54.3%	56.4%

Evans, Cloth, Benson et al., in preparation

Results of Survey with 140 School Counselors

Technique	Use this intervention	Familiar with it
Cognitive Behavior Therapy for Depression	48.8%	47.1%
Cognitive Behavior Therapy for Anxiety and Worry	54.3%	56.4%
Cognitive Restructuring	37.3%	35.1%
Exposure training	9.92%	19.9%
Behavioral Activation	12.9%	16.4%

Conclusions

- Many of the practitioners surveyed who endoresed being familiar with and using a frequently used evidence-based practice, did not understand how it is to be provided.

  – *The need for inservice and preservice training are even greater than had previously been reported.*

- School district administrators tell us that there is a lack of training resources other than one-time workshops

  – *So what happens when ongoing training and support is available?*

What contributes to implementation?

- Center for Adolescent Research in Schools (Kern, Evans, Lewis, Weist, Wills & Mehta)

  – *Developed set of classroom and SMH interventions for high school students*

  – *Recruited 54 high schools across five states*

  – *Nine to eighteen participants per school (students nominated due to serious impairment due to emotional and behavioral problems)*

- School staff implemented the interventions over two years

  – *Interpersonal Skills Group (ISG) was provided by a SMHP at each school*

  – *All students were to receive this intervention weekly or bi-weekly*

  – *CARS staff were to meet weekly with SMHP to help train and support provision of ISG*

Predictors of Implementation

- **Dependent Variable**
  - *Attended:* Total number of sessions each student attended (1 group with 5 students = 5)
  - *Provided:* Total number of sessions the SMHP held (1 group with any number of students = 1) (M = 18.0)

- **School Level Variables**
  - *FTE Ratio:* Total FTE SMHPs divided by number of students
  - *Contact Hours:* Total number of minutes of face-to-face time for CARS consultant and SMHP about ISG (range = 2 to 104 across schools; M = 27.5)
  - *Group Leader:* Binary variable indicating if ISG leader was a student trainee or SMHP (10 were students out of 27 intervention schools)

- **Student Level Variables**
  - *Service Use:* Binary variable indicating if student was receiving community based mental health services
  - *Severity:* BASC scores on Personal Adjustment, Internalizing and Externalizing

Two Variables Accounted for Approximately 50% of the Variance in Both Measures of Implementation

- **Group Leader Status** – Trainees more likely to implement more groups than SMHPs

- **Contact Hours** – More face-to-face time between CARS consultant and SMHP resulted in more group sessions

Owens, Evans et al., under review

Conclusions

■ Providing ongoing training and support matters

– *Did not analyze quality of consultation*

– *Being there to help*

■ Unclear why trainees were more likely to implement than SMHPs

– *What are the priorities of the SMHPs and the Principals?*

What are the Priorities?

- Asked 140 high school counselors to rate the importance of a list of responsibilities according to:
  - Their priority
  - Their perception of their principals' priority

Rank	Counselor Service	Principal Service
1	Responding to Crisis	Responding to Crisis
2	Meeting with Parents	Meeting with Parents
3	Students Drop-ins	Scheduling classes
4	Career Counseling	Proctoring standardized tests
5	Providing individual MH interventions	Student drop-ins
6	Scheduling Classes	Meetings w/Professionals
7	Meetings w/Professionals	Career Counseling
8	Pre-referral team	Pre-referral team
9	Providing group MH interventions	Providing individual MH interventions

Web page of "Counseling Services" at a large high school

- Picture of five school counselors standing together smiling

- If you are interested in changing your schedule or planning your courses for next year, please come to our offices during the times listed below.

- If you are interested in learning about colleges or other educational and vocational opportunities, please visit our offices to obtain brochures or meet with a counselor about your options.

- If you are experiencing emotional or behavioral problems and wish to receive services, please click here to download a list of local community resources.

- No wonder they are smiling in the picture. They do not do the difficult work.

Interventions

Best Practices for School-Based Interventions

- Organizational interventions

- Self-management interventions

- Study skills

- *Note-taking*

- *Flash cards*

- Daily Report Cards

- Check and Connect

- Behavioral contingencies applied in difficult settings (e.g., transitions)

- Cognitive Behavioral Treatments

- *Anxiety*

- *Coping Cat program (Kendall et al.)*

- *FRIENDS program (Barrett et al.)*

- *Trauma*

- *CBIT program (Jaycox et al.)*

- *Depression*

- *The ACTION program (Stark et al.)*

- *Aggression*

- *Coping Power Program (Lochman et al.)*
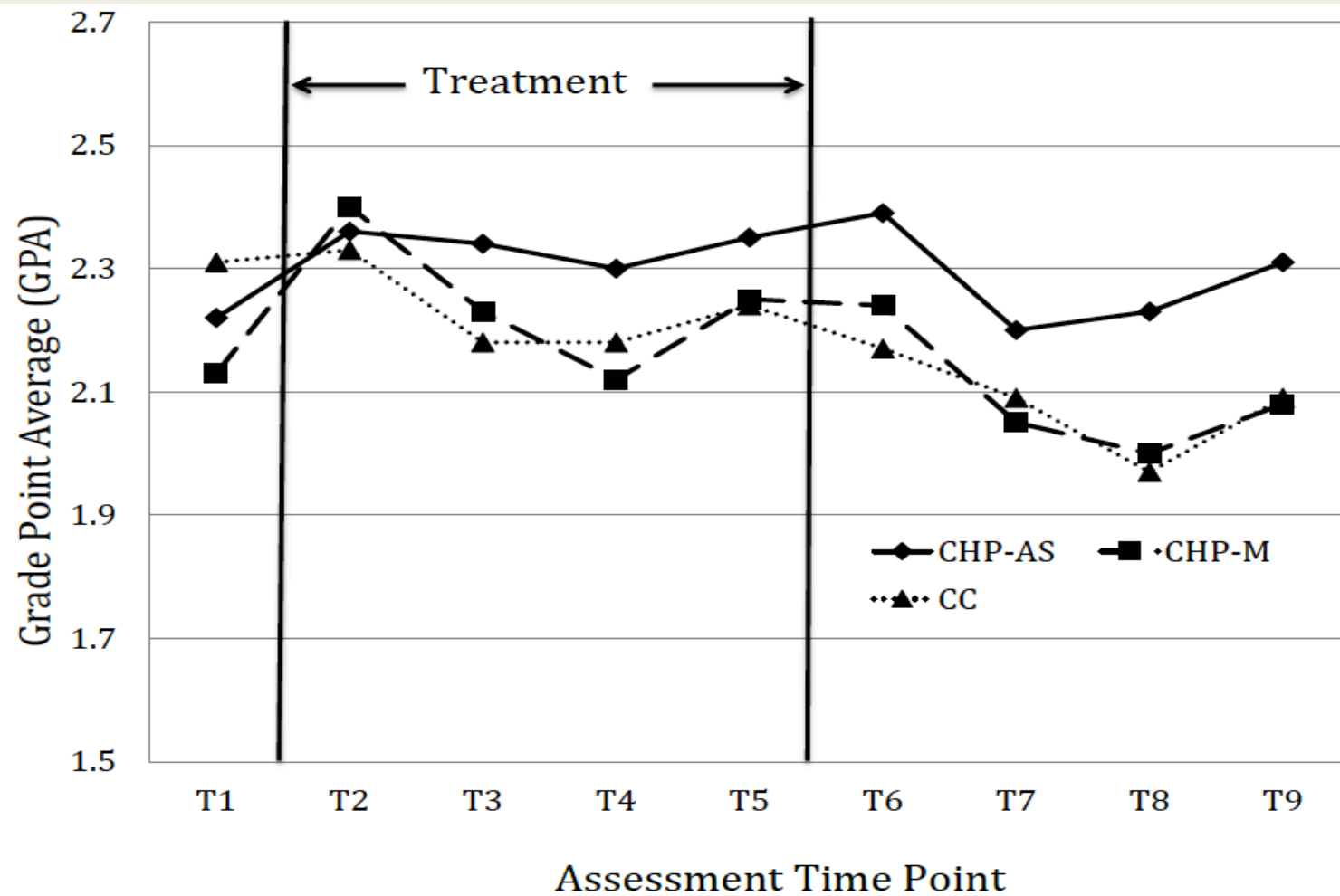
Challenging Horizons Program (November, 1999)

- Middle and high school-based intervention program for students with ADHD

- Interventions target academic and social impairment

- *Primarily focused on students instead of parents*

- *Relies on a training model*

- *Practice, practice, practice*

- Interventions

- *Interpersonal Skills Group*

- *Organization Training*

- *Study Skills*

- *Homework Management Plan*

- Delivery Models

- *After-school program*

- *Mentoring model*

- *Integrated classroom*

- Approximately a dozen studies with two large trials

- *Middle Schools – recently completed*

- *High Schools – currently being conducted*

CHP Middle School Study

- 9 middle schools Lancaster, Athens, Whitehall, Logan, Cincinnatti & Kentucky

- 326 students with ADHD

- Randomized to After-school, mentoring & community care

- Research questions

- _Intent to Treat_: Considering all eligible students offered the opportunity to participate in the program, what are the benefits?

- _Completers:_ Considering all eligible students who attend 80% or more of the sessions, what are the benefits?

GPA Outcomes by Condition - ITT

Effect Sizes

- No or meaningless effect <.20

- Small effect >.20 & <.50

- Medium effect >.50 & < .80

- Large effect >.80

Cohen, 1988

Weisz, Donenberg, Han & Weiss, 1995

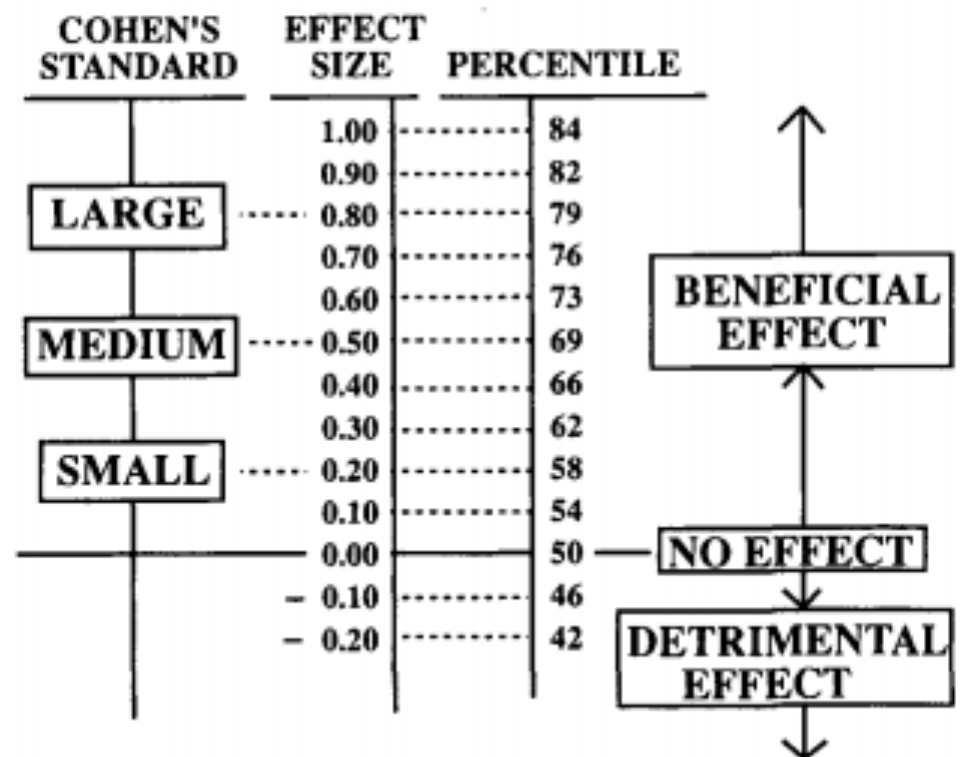| COHEN'S STANDARD	EFFECT SIZE	PERCENTILE	
	1.00	84	
	0.90	82	
LARGE	0.80	79	
	0.70	76	
	0.60	73	BENEFICIAL EFFECT
MEDIUM	0.50	69	
	0.40	66	
	0.30	62	
SMALL	0.20	58	
	0.10	54	
	0.00	50	NO EFFECT
	− 0.10	46	
	− 0.20	42	DETRIMENTAL EFFECT

Figure 1. An aid to interpreting effect size (ES) statistics. Each ES value can be thought of as reflecting a corresponding percentile value (i.e., the percentile standing of the average treated child, after treatment, averaging across outcome measures, relative to the untreated group).

Do those who complete do better than entire group at end of year?

Measure/Subscale	End-of-Treatment		Six Month Follow-up[†]	
	ITT	CACE	ITT	CACE
	d	d	d	d
COSS				
Total	0.39	0.71	0.63	1.15
Memory & Materials	0.36	0.79	0.66	1.13
Organizational Beh	0.47	0.61	0.36	0.79
Task Planning	0.30	0.93	0.58	1.24
DBD				
Inattention	0.45	2.00	0.45	0.99
Hyper/Imp	0.12	0.94	0.35	0.92
HPC				
Factor 1	0.33	1.16	0.76	1.90
Factor 2	0.51	0.86	0.54	1.32

Do those who complete do better than entire group six months later?

Measure/Subscale	End-of-Treatment		Six Month Follow-up[†]	
	ITT	CACE	ITT	CACE
	d	d	d	d
COSS				
Total	0.39	0.71	0.63	1.15
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Do those who complete do better six months after CHP than at the end of CHP?

	End-of-Treatment		Six Month Follow-up[†]	
	ITT	CACE	ITT	CACE
Measure/Subscale	d	d	d	d
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Findings and Next Steps

- Findings
- *Students in the ASP program benefited significantly more than those receiving mentoring or in the community care condition*
- *Attrition was greatest in ASP (approximately 20%; <5% in mentoring)*
- *There are feasibility limitations in providing an after-school program for the schools*
- *Need intensive services offered within the school day*
- Integrated version
- *Replaced small group study hall with CHP*
- *Trained school staff to provide CHP interventions*
- *Conducted two feasibility pilot studies of integrated model of CHP*
- Next step – Evaluate integrated model of CHP

Concluding Thoughts

- Interventions
  - *Gains take lots of repetition over extended period of time*
  - *Interventions may work best when integrated into school day*
- When SMHPs learn new approaches, ongoing training and support is key
- How do we measure outcomes? ITT or completers only
- Remember why you went into this field and do the hard work
- Learning does not end with the highest degree

Remember the 3 Keys to Success

- Tend to your relationships
- Provide best practice interventions
- Take Care of Yourself

Appreciate my relationships

- Judy Evans

- Three wonderful children

- Colleagues and graduate students in the *Center for Intervention Research in Schools*

- Many mentors

- Colleagues and collaborators

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