



Sustainability of EBPs by High School Personnel Instructing Students with ASD

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INTRODUCTION

The purpose of this research is to evaluate the sustained use of evidence-based practices (EBPs) with fidelity by high school personnel working with students with autism spectrum disorders (ASD) that participated in a randomized controlled trial (RCT) of a comprehensive educational intervention once the support from the researchers/coaches was withdrawn.

Studies devoted to factors that sustain EBPs are scarce despite the imperative need to determine if effective practices are continually used once support from researchers, trainers, and coaches is withdrawn.

(Aarons et al., 2011; Hunter, Han, Slaughter, Godley & Garner, 2015).

RESEARCH QUESTIONS

- To what extent did school personnel maintain the use of CSESA interventions identified in their school's sustainability plan for San Diego schools once coaching supports were terminated?
- Was component fidelity maintained or were interventions modified for the context after coaching ended for schools in San Diego, and if so, how?
- According to the component implementers and site coordinator in San Diego, what were the main factors that support the sustained use and fidelity of CSESA interventions, and what was the impact of CSESA on school personnel and school culture in the follow-up year?

METHOD

Concurrent mixed-methods study investigates the sustainability of a comprehensive treatment package for high school students with ASD once coaching supports are withdrawn for 5 intervention high schools in San Diego, California.

PARTICIPANTS

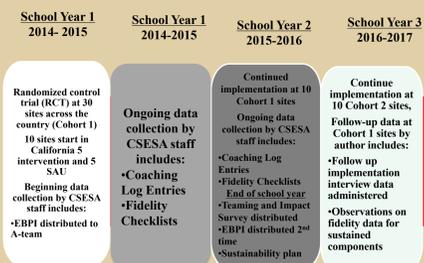
- 45 personnel including special education teachers, general education teachers, speech and language pathologists, and school psychologists that comprise the A-teams in the schools.
- All participants were employed in one of the 5 intervention high schools in San Diego
- Each school site has an A-team lead, or site coordinator who was responsible for the organization of many different aspects of the study, and is a liaison between the coaches of CSESA and the other A-team members.
- All participation was voluntary and school personnel provided informed consent to be a part of the CSESA study.

INSTRUMENTS

- A *Sustainability Plan* was created at the end of 2016-2017 school year by the PIs. Information on this plan included which components schools plan to continue in the 2016-2017 school year, by whom, when it will be continued, if anyone else will be trained, and resources or supports that are needed by either CSESA or the school district.
- The *Cumulative Coaching Log Spreadsheet* was compiled by CSESA and contains data on the focus of the coaching, whether it was specific to an intervention to an evidence-based practice, how often school personnel were coached, how long they were coached, and the role of the A-team member that was coached.
- Follow-up CSESA Intervention Interview Probe* designed for the purposes of this study which asks A-team members to identify for each component whether or not it sustained in the follow up year, if so, which students from CSESA continue to receive the intervention, and if any non-CSESA students now are receiving the intervention, and if to their knowledge any modifications to the components were made.
- Fidelity checklists* for each of the CSESA interventions were created for the CSESA study by the PIs. The checklists include specific information such as how often in the previous two weeks from observation the student received the intervention, how long each session lasts, how many aspects of the specific interventions core features areas are being adhered to the levels of prompting being used, and the type of reinforcement
- The *Teaming and Impact survey* contains 12 Likert-type questions such as: Describe the quality of collaboration of the A-team at your school during the two years of the project, Rate the ease of finding time to meet with various A-team members and component leads for planning during the CSESA project, How would you rate your school/district administration support of the CSESA project? And Has school/administration/staff allocated funds to support CSESA components (e.g. writing a grant for materials, district paying for staff to attend trainings).

RESULTS

Timeline of data collection



CSESA and Dissertation Data collection timeline

Sustained Interventions of Nine used in CSESA

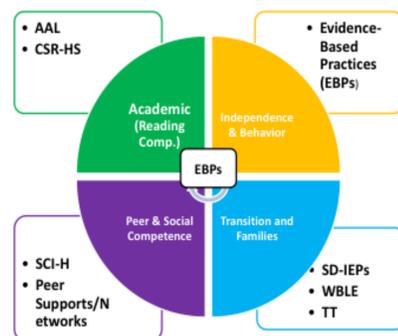
Site	n Interventions planned to sustain	n Interventions planned and Sustained	n Total number interventions sustained	% of planned interventions sustained
A	6	5	6	86
B	7	6	7	86
C	6	6	6	84
D	8	2	2	25
E	5	4	4	80

Interventions Reported as Sustained in Year Three

	Site A	Site B	Site C	Site D	Site E
AAL	X	X	X		
CSR	X	X			
Peer Supports		X*	X		
Peer Networks	X	X		X	X
SCI	X		X*		
PRISM	X*	X	X	X	X
Self-directed IEPs		X	X		X
Work-based Learning	X	X	X		X

* Denotes Not originally planned

Nine Interventions Implemented in CSESA



Summary of Key Findings

- Four out of five schools sustained two thirds of the interventions they were coached on.
- Interventions confirmed with a fidelity observation all achieved a fidelity score of 2.0 or more out of 3.0, which is considered moderate to high
- When fidelity was moderate, the lower scoring items did not affect the overall fidelity of the core features of each intervention.
- There was a positive correlation between the mean score of the *Teaming and Impact Survey* and the number of intervention that sustained in year three.

Percentage of Fidelity Score for Observations on Sustained Interventions

school site	AAL	CS R	PRIS M	Peer suppo rts	Peer Networks	SCI	Work-Based Learning	Self-Directe d IEPs
A	67%*				91%*			
B	69%*	80%*	94%*	67%*	73%**		89%*	
C				75%*		94%*		
D								
E		67%*			91%*			

* Denotes High Fidelity
** Denotes Moderate Fidelity

A-Team Attrition and CSESA Staff changes across three years

Site	n A-Team Members 2014-2015	n A-Team Members 2015-2016	n A-Team Members 2016-2017	n A-team left CSESA project	n CSESA coaching staff attrition
A	10	8	4***	1	2
B	7	7	4***	1	1
C	8	7	3***	0	1
D	7	5*	2***	2	2
E	8	9**	3***	1	1

Notes: * New member added
** Two new members added and one left
***Denotes those who responded to follow-up inquiries

DISCUSSION

Complexity of the intervention- When an intervention is too detailed, those who implemented it will most likely not follow through with implementation once support is no longer available (Gersten, Chard, & Baker, 2000; Hunter et al., 2015).

Evidence of rapport at Sites B and C which sustained the most interventions. Clear relationship that when **Teaming or Rapport** was stronger, more interventions sustained (i.e. Site A after year one, Site B and Site C).

Administrative support is key from the beginning and all the way through the completion of intervention, not only once funding has ended (Aarons et al., 2011; Gersten et al., 2000, Horner, Sugai and Fixson, 2017).

Site D perfectly exemplifies this dilemma.

- district cut back on critical administrative positions,
- experienced an influx and increase of litigation which directly impacted monetary funds and other means of support given to the school.

Factors influencing Sustainability

- Complexity of the Intervention
- Competence of the Personnel implementing the intervention
- Teaming and Rapport
- Attrition and Staff Changes
- Administrative Support
- Benefits for Students

The two sites (D, E) with a high level of **Attrition** had the lowest sustained interventions. The two sites (D, E) with a high level of attrition had the lowest sustained interventions

Benefits for Students

Expectancy theory, individuals are motivated to perform at a certain level if they believe that there is a positive correlation between their effort and their performance (Lunenburg, 2011)
This theory supports even the more complex interventions continuing such as: AAL, CSR, peer networks, SCI



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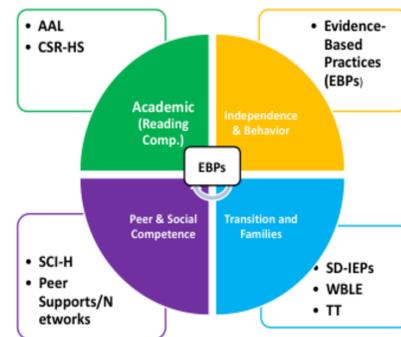
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