



CSESA

The Center on Secondary Education for
Students with Autism Spectrum Disorders

Educational Strategies and Interventions for High School Students with ASD

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About CSESA: Center on Secondary Education for Students with ASD

- * Research & Development Center
- * 10 Million Dollar Grant funded by the Department of Education (institute of education sciences)
- * Samuel Odom and Kara Hume PIs
- * **Purpose: To conduct a program of research to develop & evaluate a comprehensive, school-based intervention program for secondary students with ASD. The ultimate objective of the Center is to improve the cognitive, communicative, academic, social, behavioral, functional, or transition outcomes of secondary students with ASD.**

Why the emphasis on independence?

Identified Prevalence of Autism Spectrum Disorder

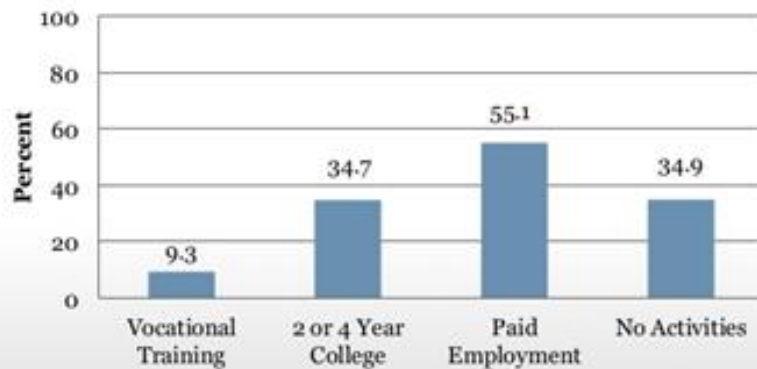
ADDM Network 2000-2010
Combining Data from All Sites

Surveillance Year	Birth Year	Number of ADDM Sites Reporting	Prevalence per 1,000 Children (Range)	This is about 1 in X children...
2000	1992	6	6.7 (4.3 - 9.9)	1 in 150
2002	1994	14	6.6 (3.3 - 10.6)	1 in 150
2004	1996	8	8.0 (4.6 - 9.8)	1 in 125
2006	1998	11	9.0 (4.2 - 12.1)	1 in 110
2008	2000	14	11.3 (4.8 - 21.2)	1 in 88
2010	2002	11	14.7 (14.3 - 15.1)	1 in 68

- * 8 year-olds in 2002 are now 21
- * We will see a 78% increase in demand for adult services in the next 6 years

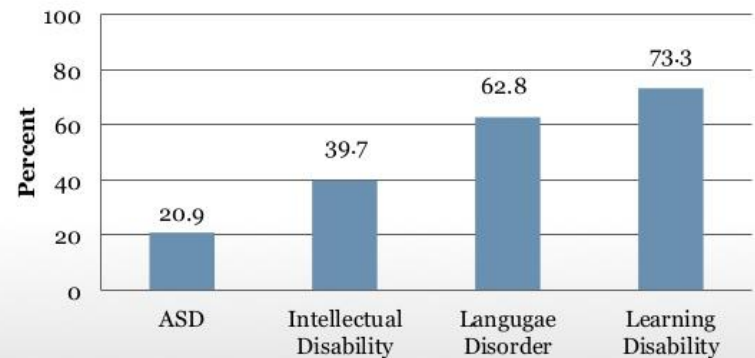
Why the emphasis on independence?

Postsecondary Education and Employment (19-23 Year Olds)



(NLTS2 Study; Shattuck et al., 2012)

Full-Time Employment (21-25 Year Olds)



(NLTS2 Study; Roux et al., 2013)

CSESA Sites



**SAN DIEGO STATE
UNIVERSITY**



UNC

**FRANK PORTER GRAHAM
CHILD DEVELOPMENT INSTITUTE**

UCDAVIS
MIND INSTITUTE

THE UNIVERSITY OF
TEXAS
AT AUSTIN



The Big Picture



Study Aims

- 1) To test the acute (following one year of implementation) and full (following two-years of implementation) efficacy of the CSESA model,
- 2) To determine moderators of CSESA efficacy,
- 3) To determine mediators of CSESA efficacy,
- 4) To explore the CSESA treatment effects one year after the study has concluded, and
- 5) To explore the continued implementation of the CSESA program after the study has concluded

Where We Are Now: End of Year 3 (First Year of RCT)

- * Working in 30 comprehensive high schools. 10 in San Diego, 10 in Wisconsin, and 10 in North Carolina.
- * 8 to 12 students with ASD identified at each school
- * Participants must be at the HS for 2 years.
- * 15 schools are CSESA schools and receive the comprehensive intervention over a 2 year period. 15 schools are Services as Usual (SAU). Receive intervention manuals following 2 years.
- * Autism teams at each intervention school received extensive training on the interventions along with weekly coaching and feedback by CSESA staff.
- * CSESA coaches are at each CSESA school 6 hrs a week.
- * Parents active participants.

Measures & Data Collection

- * Both direct and indirect methods of assessment are implemented at 3 time points across the 2 year intervention period for each cohort (Fall year 1, Spring year 1, Spring year 2)
- * Indirect measures are completed by parents, teachers, and the students themselves.
- * Direct measures completed by CSESA staff
- * All participating students have goals developed in each intervention domain area. Goal Attainment Scaling process used. Data collected at 3 time points for each GAS goal.
- * Treatment fidelity data collected at 3 time points per intervention component.

Measures at a Glance

				Frequency					Participant						
				Year 1 Fall	Year 1 Spring	Year 2 Spring	Year 3 Spring	Other	Student	Parent	School A-team	Familiar School Staff (1 per stud.)	Other School Staff	CSESA staff	Student Body
Assessment	Abbr.	Format	Amt of Time												
American Institute of Research Self-Determination Scale	AIR-SDS	Questionnaire	10-15 min	X	X	X	X			X	X		X		
Autism Program Environment Scale – Middle/High School	APERS-MHS	Observation	6-8 hrs	X		X		*NOTE: Subset of parents/staff		I	I/O			X	
		Interview	30-60 min per												
Child-Family Demographic Forms	C/F Demo	Questionnaire	5-10 min	X						X					
Cost Study Forms	CSF	Questionnaire	5-10 min					1x over 2 years			X		X		
Evidence-Based Practices Attitude Scale	EBPAS	Questionnaire	5-10 min	X							X				
Evidence-Based Practices Inventory	EBP-I	Questionnaire	10-15 min	X	X	X					X				
Family Empowerment Scale	FES	Rating scale	10 min	X	X	X	X			X					
Goal Attainment Scaling	GAS	Rating scale	30-45 min					3x per goal, varies by year			I			X	
Implementation Index	II	Interview	30-60 min					Cont.-CSESA 1x-Control	O		I/O		O	X	
		Observation	8-15 hours												
Leiter International Performance Scale-Third Ed.	L-3	Standardized test	20-45 min	X					T					X	
School Staff Demographic Forms	S/S Demo	Questionnaire	5-10 min	X							X				
Secondary School Success Checklist	SSS-C	Online scale	30-45 min	X		X	X		X	X		X			
Social Communication Questionnaire-Lifetime	SCQ	Rating scale	10-15 min	X						X					
Social Responsiveness Scale-Teacher	SRS	Rating scale	10-20 min	X	X	X	X					X			
Student Information Form	StudInfo	Questionnaire	10-20 min	X	X	X	X							X	
Student Proximal Measure	Prox	Online scale	10-15 min					Y1:2x, Y2:3x		X		X			
Supports Intensity Scale-Children Short form	SIS	Rating scale	5 min	X	X	X	X			X		X			
Technology Survey	Tech	Questionnaire	15 min					1x over 2 years	X	X	X				
Usage Rating Profile – Intervention		Rating scale	10-15 min		X	X		Component-level measures	X	X	X				
Vineland Adaptive Behavior Scale-II (Teacher r.f.)	VABS	Rating scale	20-30 min	X	X	X	X					X			
Woodcock Johnson Test of Achievement-III	WJ-III	Standardized test	20-40 min	X	X	X	X		T					X	
Zarit Burden Inventory	ZBI	Rating scale	10-15 min	X	X	X	X			X					

Key: X = completed by, O = observed, I = interviewed, T = tested
 Note: gray items are administered/completed by CSESA research staff

Time I Data

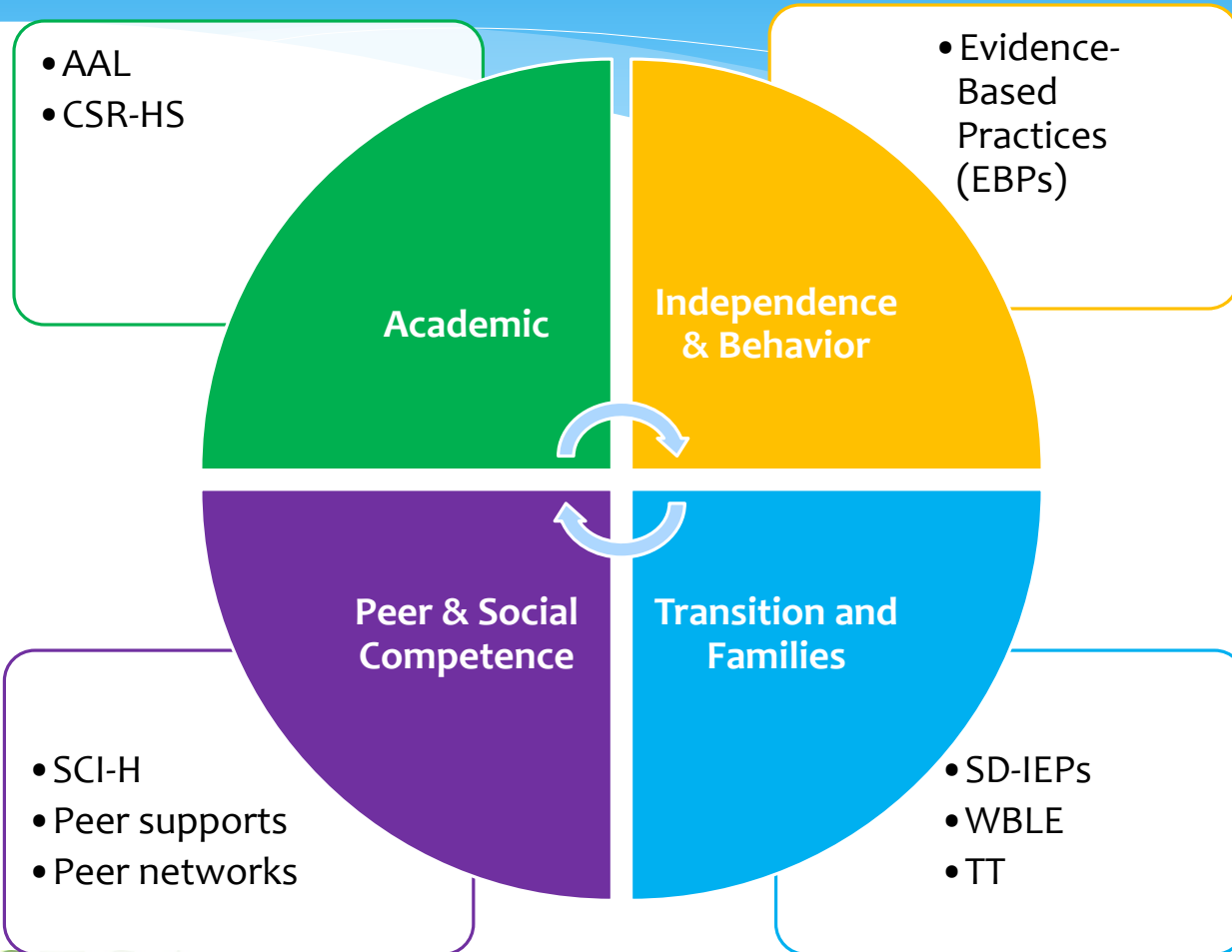
Demographics

Variable	Categories	All (n=281)	SAU (n=126)	CSESA (n=155)
Age		M=16.3 SD=1.5 13.8-20.9	M=16.6 SD=1.6 13.9-20.9	M=16.0 SD=1.3 13.8-20.2
Diploma Type	Standard Diploma	n=163 %=58.2	n=72 %=57.6	n=91 %=58.7
	Modified Diploma	n=117 %=41.8	n=53 %=42.4	n=64 %=41.3
Gender	Male	n=235 %=83.6	n=106 %=84.1	n=129 %=83.2
Ethnicity	Hispanic/ Latino	n=32 %=15.8	n=16 %=18.0	n=16 %=14.2
	Non- Hispanic/ Non-Latino	n=170 %=84.2	n=73 %=82.0	n=97 %=85.8
Household Income	<\$20K	%=9.0	%=9.1	%=9.0
	\$20-39K	%=12.6	%=10.2	%=14.4
	\$40-59K	%=10.6	%=10.2	%=10.8
	\$60-79K	%=15.6	%=17.1	%=14.4
	\$80-99K	%=10.6	%=14.8	%=7.2
	>\$99K	%=41.7	%=38.6	%=44.1

Time I Student Data

Assessment	Description	All (n=281)	SAU (n=126)	CSESA (n=155)
Leiter-3	Nonverbal IQ Composite score	M=85.8	M=86.3	M=85.4
SCQ	Total SCQ Score 0-39	M=20.5	M=20.9	M=20.1
	0 (No ASD)	n=51 %=22.8	n=18 %=18.6	n=33 %=26.0
	1 (ASD)	n=173 %=77.2	n=79 %=81.4	n=94 %=74.0
SRS	Total T-score	M=71.8	M=71.3	M=72.2
Vineland Teacher	Adaptive Behavior Composite T-SS	M=75.0	M=75.9	M=74.5
	Communication T-SS	M=77.6	M=78.5	M=77.0
	Daily Living T-SS	M=80.4	M=81.1	M=79.9
	Socialization T-SS	M=72.4	M=73.3	M=71.7
WJ-III	Standard Score on Passage Comp.	M=70.2	M=71.1	M=69.5
	Age-equivalent on Passage Comp.	M=10.1	M=10.4	M=9.9
	Standard Score on Academic Knowledge	M=71.1	M=71.7	M=70.6
	Age-equivalent on Academic Knowledge	M=10.7	M=11.0	M=10.5

CSESA Domains



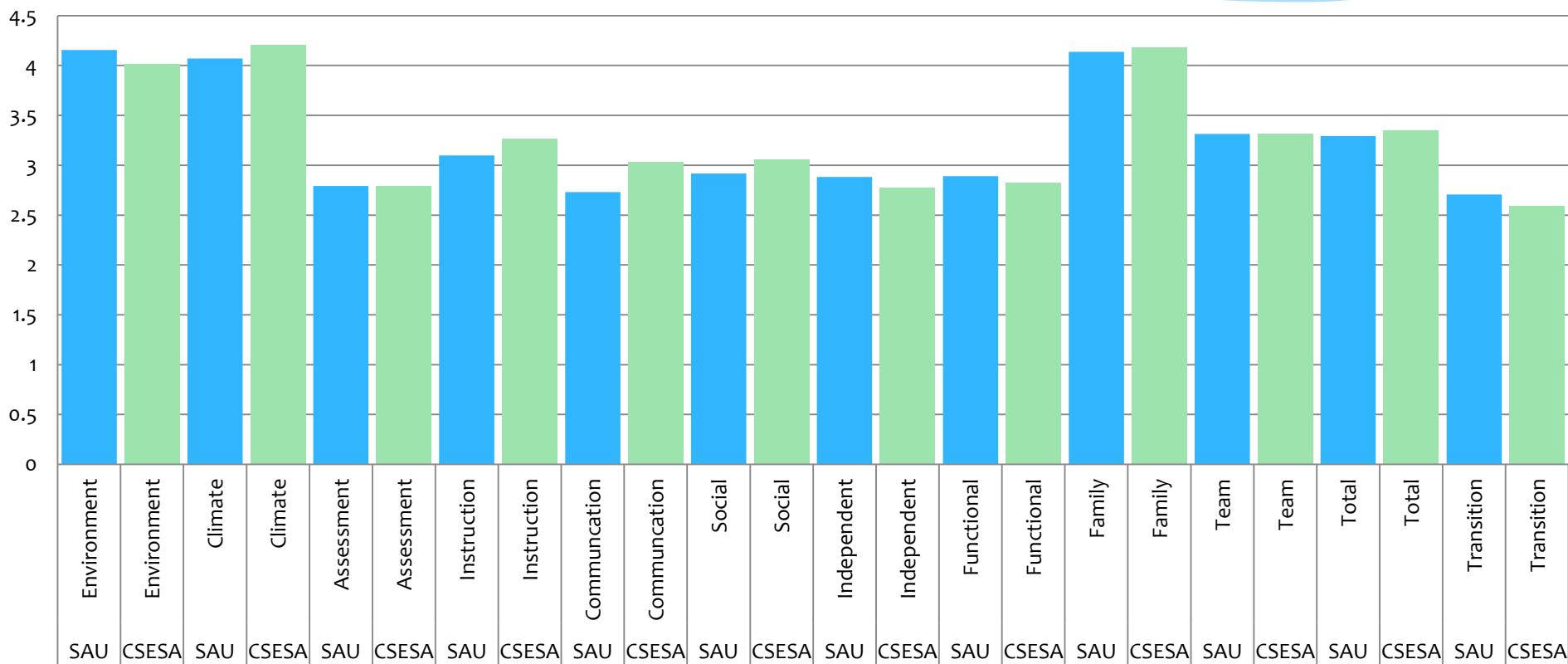
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Assessment of Learning Environment: APERS Time I Data

- ❖ The APERS is a comprehensive assessment tool from the National Professional Development Center on Autism Spectrum Disorder
- ❖ It requires direct classroom observation, review of educational records, and teacher and parent interviews
- ❖ The APERS consists of 12 domain areas and a total score.
- ❖ Each domain area is comprised of multiple items rated on a 5-point scale.
- ❖ The domain scores and total score are also on a 5-point scale. Higher scores are indicative of more competence in the content area.

Mean APERS Scores



Next Steps

- * Recruiting Cohort 2 (30 more High Schools, 10 per site)
- * Random assignment to treatment group
- * Site Autism teams being identified and trained this summer and Fall.
- * Cohort 1 beginning second year of intervention in the Fall.
- * CSESA schools will continue implementation of components started in the Spring and start two new components.
- * Ongoing coaching, implementation, treatment fidelity, and data collection occurring.

For Additional Information and Resources

CSESA website:

<http://csesa.fpg.unc.edu/>

NSTTAC website: www.nsttac.org

NTACT website: www.transitionta.org