School-based Interventions for Students with Autism: Focus on Fidelity

SAM ODOM, KARA HUME, LAURA HALL, BONNIE KRAEMER
Goals of the Session

• Provide rationale for a comprehensive treatment model in high school for students with autism and importance of fidelity

• Describe four components of the CSESA model

• Provide details of the ways practitioners use of the model with fidelity occurs and is supported

• Discuss the challenges and solutions in implementing the model
Autism

• Social communication challenges
• Restrictive and repetitive behavior
  • Need for stable, predictable environment
• Range of cognitive and academic abilities from intellectually gifted to intellectually disabled
• Predominantly boys (75%)
Autism in High Schools

14.9 million students in U.S between 9-12 grades

14.9m x (1 in 68) = 219,118
What Are the Outcomes for Young Adults with Autism

What happened to young adults with autism between high school and their early 20s?

- **Education**: Attended any postsecondary education - 36%
- **Living Arrangements**: Lived independently - 19%
- **Employment**: Had a job for pay - 58%
- **Access to Services**: Received any services - 74%

About CSESA

• Research & Development Center

• Funded by the Department of Education (IES)

• Purpose: To develop and study a comprehensive high school program for students on the autism spectrum
Original CSES A Collaborators
Find CSESA

- HTTP://CSESA.FPG.UNC.EDU/
- WWW.FACEBOOK.COM/CSESA.ASD
The Big Picture

2012-2013
Year 1
Development & piloting of individual model components (6 sites)

2013-2014
Year 2
Piloting of several components in combination (6 sites)

2014-2015
Year 3
Randomized control trial (RCT) of full model at 30 sites across the country (Cohort 1)

2015-2016
Year 4
Continue implementation at 30 Cohort 1 sites; enroll 30 more sites (Cohort 2)

2016-2017
Year 5
Continue implementation at 30 Cohort 2 sites, follow-up data at Cohort 1 sites
Shout out for CSESA

- **1,800** consented participants
- **546** adolescents with ASD
- **30 school districts across 5 states**
- **60 schools**
- **2,000 hours of professional development (this year)**
- **18 peer-reviewed publications**
- **55 international, national, state, and local conferences**
- **130,000 page views with 27,000 downloads**
CSESA Domains

- Partner with teams at each high school
  - provide ongoing training and coaching in the implementation of specific interventions along with associated evidence-based practices

- Plan the implementation across a 2-year-period
Academic Component: Literacy

Alternate Achievement Literacy
(for students receiving alternate assessments)

• Access/comprehend text that is chronologically age appropriate by using adaptations, modifications, and technology

• Comprehend passages of connected text

• Apply comprehension across both narrative and informational text

Developed by Diane Browder and colleagues at UNC-C
Academic Component: Literacy

**Collaborative Strategic Reading – High School**

- Consists of EBPs to enhance reading comprehension
- Uses a peer-to-peer model
- Includes *before-during-after* reading strategies and elements of cooperative learning
- Manualized intervention that should be implemented 2 to 3 times per week for a minimum of 16 weeks.

Developed by Sharon Vaughan and colleagues at the University of Texas, Austin
Peer & Social Competence Component

Social Competence Intervention (SCI-H)

• A manualized cognitive-behavioral social skills training program for students with high functioning ASD

• Units focus on a) recognition of facial expression, b) sharing ideas with others, c) turn taking in conversations, d) recognizing emotions, and e) problem solving

• Implemented as part of a teen social skills group in the high-school setting

Developed by Janine Stichter and colleagues at the University of Missouri
Peer & Social Competence Component

Peer Mediated Interventions (Peer Networks and Peer Supports)

• Teaching typical peers specific techniques for engaging students with disabilities in social and communicative interactions

• Peer support strategies expand on peer mediated interventions by

  a) teaching peers to support engagement in general curriculum contexts and

  b) establishing a social network of support within the school

Developed by Erik Carter at Vanderbilt University
Independence and Behavior Component

*Promoting Responsibility, Independence, and Self-Management - PRISM*

- Use of **Evidence Based Practices**, as identified by NPDC, to support goals related to student independence and behavior.
- CSESA team provides training and coaching on what the EBPs are and how to implement them.
- Recommended at least **30 minutes per week of targeted instruction** related to goal.
- Can be implemented anywhere - study skills/academic strategies courses, classroom settings, advisory periods, job sites, cafeteria, peer networks - generalization is goal.

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**Let’s practice**

- What are the steps to your vocabulary assignment in English each week?
  - Let’s type them out
  - Check them off when done!
- How could you use this in class?
Transition & Families Component

- Community and School Resource Mapping
- Transition Planning Process
- Student Involvement in the IEP
- Work Based Learning Experiences in preparation for postsecondary goals (college, careers, independent living)

Developed by David Test and team at UNC-Charlotte
Transition & Families Component

Transitioning Together (family component)

◦ Provide education and support for parents during the period of transition
◦ Emphasize positivity and problem solving
◦ Share relevant resources and referrals based on results of school and community mapping
◦ Individual family “joining session”, 8 multi-family weekly group sessions, and 8 sessions for teens.

Developed by Leann Smith at University of Wisconsin, Madison
Feedback from Parents

Do we have to quit meeting?

I enjoyed problem solving. Sometimes it’s easy to forget the obvious solutions.

We will be doing things differently based on our experience in the group, especially working on the self help skills we never really gave him the opportunity to develop.

Our attitude changed. We didn’t think our son could do a job and go to school-and he can do both.
How to measure fidelity of such a comprehensive intervention with many teachers at many schools working with many complex students?
It’s complicated!

• Following recommendations of Dave Cordray and colleagues
  • *A Procedure for Assessing Intervention Fidelity in Experiments Testing Educational and Behavioral Interventions*, 2012

• As part of the model development, the CSESA team developed a multi-component fidelity tool including:
  • **Individual fidelity measures per component designed to:**
    • Measure adherence, dosage, and quality of delivery for each component
    • Differentiate between CSESA and non-CSESA interventions
  • **Process fidelity measure designed to:**
    • Capture the larger CSESA process including professional development, assessment, planning, implementation, and outcomes
Individual fidelity measures

Moving from this....

Peer Network Orientation Meeting Checklist

(to be completed by the facilitator after the orientation meeting)

Student_________________________Facilitator_________________________
Date:_________________________Total number of students at meeting:_______

Circle Y (yes) or N (no) based on whether the following occurred:

1. Y N Was the student present?

2. Y N Were all of the network members in attendance? List names of partners who were present.

3. Y N Did the partners and student introduce themselves and participate in introductory activities appropriately (if student is mostly nonverbal, did I introduce him or her to the group and give non confidential background information)?

4. Y N Did students talk about areas of shared interests? If so, what?

5. Y N Did the group discuss the goals for the group? List any goals suggested by group members.

6. Y N Did the group discuss ways to work toward the goals of the peer network?

7. Y N Did I discuss the importance of confidentiality and respectful language with the group?

8. Y N Did the group talk about when social interactions can occur?

9. Y N Did I offer specific suggestions on ways to interact socially?

10. Y N Did the group schedule regular meetings or discuss the date of the next meeting?
Individual fidelity measures

To this....

<table>
<thead>
<tr>
<th>AAL</th>
<th>Domain</th>
<th>Features</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frequency</td>
<td>How often in the past two weeks has this student received this intervention support? Notes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Key: 3: 10+ times 2: 6-9 times 1: 1-5 times 0: 0 times</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Amount</td>
<td>On average, how long were each of the sessions over the past 2 weeks? Notes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Key: 3: 30+ minutes 2: 15-23 minutes 1: 1-14 minutes 0: 0 minutes</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Text Selection and Access</td>
<td>Selected text relates to student interests, student goals, social trends, or general curriculum. Text represents varied genres (e.g., stories, drama, poetry, nonfiction, informational text). Students can access text through varied adaptations, modifications, and/or technology use (e.g., adjustable text, text-to-speech technology, visual supports, captions, summary).</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>What other types do you use in these types of reading lessons?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Organization</td>
<td>Student materials can be easily accessible. Navigate through materials (paper or technology) fluently (brief between activity intervals). Ensure student is in place and able to access/view materials.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Vocabulary</td>
<td>Lesson includes vocabulary instruction. Instructor introduces new vocabulary.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Read Aloud</td>
<td>Lesson includes read aloud (by student or teacher). Instructor accurately reads text (e.g., avoids omissions and substitutions of words). Gains student's attention.</td>
<td></td>
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Key: 3 (High): All features were observed 2 (MD): Half or more features were observed 1 (Low): Less than half but at least 1 feature was observed 0 (Not Observed): No features were observed
Individual fidelity measures: Format

- All fidelity measures on single metric (0-3)
  - Will allow to be collapsed as part of a broader implementation index score
- Common headings
  - Dosage
  - Preparation and Structure
  - Process
  - Strategies & Content
  - Evaluation & progress Monitoring
- Includes interview and observation items
- Collected 3x per initial semester of implementation
  - Ongoing checks for maintenance

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<th>Notes</th>
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<tbody>
<tr>
<td>Transition &amp; Families</td>
<td>How many parent education sessions will this family be offered over this school year?</td>
<td></td>
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<tr>
<td></td>
<td>Males</td>
<td></td>
</tr>
<tr>
<td></td>
<td>How long were each of the sessions?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td></td>
</tr>
<tr>
<td>Group Structure</td>
<td>Group includes only families of students with ASD</td>
<td></td>
</tr>
<tr>
<td>Speakers</td>
<td>Guest speakers arranged</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>Materials/activities are organized for group session</td>
<td></td>
</tr>
<tr>
<td>Joining Sessions</td>
<td>Conducts joining sessions with each family</td>
<td></td>
</tr>
<tr>
<td>Group Sessions</td>
<td>Conducts practice problem-solving sessions</td>
<td></td>
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<tr>
<td>Lesson Structure</td>
<td>Provides welcome and introduction</td>
<td></td>
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- Ask staff member
Individual fidelity measures: How to use data?

- Initial use is to support the coaching process
  - Informs weekly coaching conversations with school staff

- Part of a larger index to can be examined in relationship to student outcomes (i.e. training log, coaching log, process elements)

- AND to discriminate between CSESA and Services as Usual sites
  - Help to describe what is happening in those high schools
Challenges & Solutions to Fidelity of Implementation
Challenge: **Time**

- For training & to **learn the strategies well when staff have other pressing priorities**
Solutions

• Hold training/coaching during breaks, after school, on Saturday & **provide food!**

• Gain support from administration – one Director of Special Education supplemented the CSESAn pay of staff participating in Transitioning Together

• Offer to **pay for subs**

• Include paraprofessionals
Challenge: High School Schedules & Structures

• Students with ASD educated full time in general education have challenges such as including on work-based learning

• Planning meetings for training & coaching when schedules change frequently & many special events are part of the school culture
Solutions

• **Go with the flow** – use the special events to foster peer interaction, or to demonstrate general support for the school

• Work with administration to **place a class in the schedule** for SCI-H (social skills) or a focus on transition

• Look for ways to foster leadership skills for those diploma bound students in general education classes
Challenge:
No or Poor Data Collection skills

Lack of

• training
• knowledge
• experience
Solutions

• Recognize that data collection is an elaborate skill that needs practice & support

• Provide data sheets & materials – such as check lists or a MotivAider for self-management

• Encourage assistance from paraprofessionals or colleagues (School psychologist co-lead a SCI-H group & focused on the group contingency system)
Challenge:
Component not philosophically aligned with typical approach used or fidelity in general is not a shared value

• For example, SCI-H uses a scripted lesson with a token system based on principles of behavior analysis
• Teachers want to make the intervention their own
Solutions

• Focus on aspects of intervention they are comfortable using
• Share success stories
• Provide research examples on the importance of fidelity
• Identify aspects of component that can be made their own or individualized
Challenge: Tendency to revert to previous practice or use part of an intervention

• Use non-evidence-based practices for PRISM
• Hold Peer Network session but not meet with peers separately
• Leave off the homework sessions in SCI-H or not include the group contingency system
• Stop reviewing new vocabulary at the start of the AAL session
Solutions

• Extra coaching
• Recognize & Reward
• Provide Praise & Encouragement

Fri 2/12/2016 4:46 PM
Hume, Kara Anne
Nice work Apex! Community & School Resource Map is finished!