The Ziggurat Model
Designing Comprehensive Behavior Interventions for Students with ASD

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Overview of Day

- Common errors in judgment in identifying high-functioning individuals with ASD
- Myths of identifying high-functioning individuals with ASD
- Overview of comprehensive planning
- Introduce the Ziggurat Model
  - How to assess underlying characteristics
  - How to assess strengths and skills

Common Errors in Judgment in Diagnosis/Identification of High-Functioning ASD

Adapted from Loveland, n.d.

Diagnostic Overshadowing

- Characteristics of another disorder are evident and mistakenly used to explain the complete diagnostic picture.

  Solution:
  - Trained and experienced teams are able to readily differentiate between ASD and other conditions. They are also able to recognize when ASD occurs along with another disorder.

Adapted from Loveland, n.d.

Unremarkable Developmental Milestones

- When developmental milestones are met in a typical time frame, other significant differences (e.g., tantrums, repetitive behaviors) may mistakenly be dismissed.

  Solution:
  - Trained and experienced teams recognize that not all differences associated with ASD are developmental in nature. Experienced teams are also aware that individuals with AD often present with a typical pattern of development in a number of areas.

Adapted from Loveland, n.d.

Strong Cognitive Ability

- Those with average to above average intelligence often learn to compensate for their differences - especially in familiar situations. The characteristics of ASD often are not apparent until the individual is no longer able to compensate.

  Solution:
  - Trained and experienced teams are able to recognize compensating strategies such as use of scripts, humor, and imitation. They adapt the testing to identify masked limitations.

Adapted from Loveland, n.d.
Strong Interest in Social Interaction

- An individual with AD may have friends or desire social interaction, yet not have the social understanding or social competence that would be expected at his or her age. "He’s so social he cannot have AD."
- Solution:
  - Trained and experienced teams know that individuals with AD may have a strong desire for social interaction yet lack the skills to interact successfully. There is a widespread misbelief that individuals with AD are loners. Klin and Volkmar state that persons with AD who are socially isolated are not loners by choice (1995).

Lack of Stereotypical Signs

- The individual does not display some behaviors often seen in individuals with ASD. "She looks just like everybody else."
- Solution:
  - Trained and experienced teams know that ASD is a pattern of symptoms and is not defined by the presence or absence of any single characteristic.

Lack of Disruptive Behaviors

- Often, significant difficulties are dismissed or explained away when they are not disruptive. This is one of the reasons that fewer females are referred.
- Solution:
  - Trained and experienced teams know that individuals who do not exhibit disruptive behaviors may have AD.

Myths and the Culture of Misunderstanding

Belief in Myths Causes Harm

Myths Harm

- Myths result in delayed identification
- Myths result in delayed intervention
- Myths prevent students from being identified
- Myths prevent students from receiving services

Culture of Misunderstanding

- Administration, Staff, Community, and Media
Culture of Understanding

Epidemic of Understanding
- Power of the few (Malcolm Gladwell)

Myth
If a child easily hugs others they probably do not have autism.

Reality: Skilled examiners value observations of others.

Myth: If a skill is present one time, the student does not have a deficit

Reality: You need to look at quality in addition to frequency.

Myth: If you don’t see it .... it doesn’t count

Reality: A student who earns passing grades does not have an educational need for special education

Reality: Educational need does not equate to “academic need”
IDEA Definition of Autism

- a developmental disability significantly affecting verbal and non-verbal communication and social interaction, generally evident before age 3, that adversely affects a child’s educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

300.8(c)(1)(i)

“Adversely Affects Educational Performance”

- "Each state must ensure that FAPE is available to any individual child with a disability who needs special education and related services, even though the child has not failed or been retained in a course or grade, and is advancing from grade to grade”

IDEA 300.101(c)(1) [emphasis added]

Eligibility and the Myth of Educational Need

- Educational need extends beyond academics and includes social, emotional, and adaptive skills.
- This concept applies to both initial and reevaluations. Evaluation teams must always consider the functional performance of a student.
- Consider changing needs/demands (e.g., social demands in 7th grade differ from 3rd grade)

Eligibility and Educational Need

- Unfortunately, school evaluation teams sometimes fail to consider educational factors beyond traditional academics. As a result, academically capable students with ASDs who display deficits in socialization and communication that impact educational progress often are not served.

Eligibility and Educational Need

- “A child with Asperger’s Disorder may be more verbal than other children with autism and may have average or above average intelligence, yet still be in need of services.”

Myth: Students with Asperger’s are not eligible for special education

Reality: Asperger Syndrome is covered by Federal Law

IDEA Definition of Autism

- a developmental disability significantly affecting verbal and non-verbal communication and social interaction, generally evident before age 3, that adversely affects a child’s educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

Myth of Asperger Syndrome and Eligibility

- Individuals with Asperger Syndrome have a pervasive developmental disorder. It is impossible to have a “pervasive” disorder and not be significantly impacted.
- While many of these individuals are highly intelligent and articulate, they have significant impairments and often require supports and services in order to make educational progress

Myths: High-Functioning ASD is a mild form of autism

Reality: It is a significant disorder that has a pervasive impact on individuals

Asperger’s – Mild Autism?

- “[Asperger’s Disorder] cannot be regarded as a mild disorder. Many examples exist to demonstrate that it can impose a heavy burden on the [person], the family and the wider community.”

Frith, 2004

Outcome


- Of adults 22 and older, 73% lived with their parents
- 90% could not gain or keep employment
- 95% had difficulty making and keeping friends
Outcome - Employment

- 83% received disability pension awards (Morde, Groholt, Knudsen, et al., 2012)
- 57% normal-intelligence ASD group were unemployed (Hofander, Delorme, Chase, et al., 2009)

Outcome - Psychosocial

- 95% ASD group unmarried (Morde, Groholt, Knudsen, et al., 2012)
- 7.6% ASD group criminal convictions (compared to 10% in general population; Morde, Groholt, Knudsen, et al., 2012)
- 40% normal-intelligence ASD group were living with parents or in community based group homes (Hofander, Delorme, Chase, et al., 2009)
- Female subjects were bullied more often at school than male (Hofander, Delorme, Chase, et al., 2009)

Comorbidity

74% in HFA/AS (Mattila, et al., 2010)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Morde et al., 2012</th>
<th>Mattila et al., 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>50%</td>
<td>56%</td>
</tr>
<tr>
<td>Mood Disorder</td>
<td>53%</td>
<td>14%</td>
</tr>
<tr>
<td>ADHD</td>
<td>43%</td>
<td>44%</td>
</tr>
<tr>
<td>Psychotic</td>
<td>12%</td>
<td>--</td>
</tr>
<tr>
<td>Tic Disorders</td>
<td>20%</td>
<td>38%</td>
</tr>
<tr>
<td>ODD</td>
<td>24%</td>
<td>28%</td>
</tr>
<tr>
<td>Substance Related</td>
<td>16%</td>
<td>--</td>
</tr>
<tr>
<td>Eating Disorder (2% general population)</td>
<td>5%</td>
<td>--</td>
</tr>
<tr>
<td>Insomnia</td>
<td>--</td>
<td>36%</td>
</tr>
</tbody>
</table>

Why are we NOT focusing on academics?

They are important, but …

Research Shows That ...

- Individuals with “soft skills”, including good social skills, sociability, good work habits, punctuality, conscientiousness and those who participated in extra curricular activities are more likely to make more money, be employed, and attain higher levels of education than those with good grades and high standardized test scores.


The Purpose of Special Education (IDEA)

To ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique need and prepare them for further education, employment, and independent living.

§300.1 (emphasis added)
The Ziggurat Model

Ziggurat **n:** (zig·gu·rat) from Assyrian *ziqqurat*, height, pinnacle

1. a temple having the form of a terraced pyramid of successively receding stories, erected by the ancient Assyrians and Babylonians
2. a framework for designing comprehensive interventions for individuals with autism spectrum disorders

Three Areas of Expertise for Effective Intervention Planning

- Characteristics of ASD
- Range of effective interventions
- Comprehensive planning process

Why was the Ziggurat Model Developed?

- Difficulty “Seeing the Autism”
- Tendency to apply one strategy to address all needs
- Tendency to ignore critical areas when designing an intervention

Intervention Ziggurat

Skills to Teach

Task Demands

Structure and Visual/Tactile Supports

Reinforcement

Sensory Differences and Biological Needs

Characteristics

Interventions

Skills to Teach

Task Demands

Structure and Visual/Tactile Supports

Reinforcement

Sensory Differences and Biological Needs
Characteristics
- Social
- Communication
- Repetitive Patterns

Associated Features
- Sensory
- Motor
- Cognitive
- Emotional Vulnerability
- Medical and Biological Factors

Interventions
- Skills to Teach
- Task Demands
- Structure and Visual / Tactile Supports
- Reinforcement
- Sensory Differences and Biological Needs

The Ziggurat Model
- Sensory and Biological Needs
- Reinforcement
- Structure and Visual / Tactile Supports
- Task Demands
- Skills to Teach

Who is Involved in Comprehensive Planning?
- Parents
- Student
- General Education Teacher
- Special Education Teacher
- Para-professional
- Speech Language Pathologist
- Occupational Therapist
- School Psychologist
- Administrator
- Social Worker
- Other as needed

Why Comprehensive Planning With The Ziggurat and CAPS Models?
- Fewer behavior problems
- More instructional time
- Increased compliance with law
- Increased engagement time
- Faster IEP development
- Better IEPs
- More positive/collaborative relationship with parents
- Improved collaboration among staff

3 Keys to Comprehensive Intervention Planning
- Characteristics

2008 ASA Literary Award Winner
5 Steps to Designing a Comprehensive Intervention Plan

1. Characteristics
2. Design
3. Global Plan
4. Guide
5. Ziggurat
6. CAPS

IEP Development Requirements
614(d)(3)(A)

- Requires the IEP Team consider:
  - Strengths of the child
  - Concerns of the parents
  - Evaluation results
  - Academic, developmental, and functional needs of the child

[emphasis added]

Underlying Characteristics Checklist

1. Helps you to "see" the autism
2. Provides a "snapshot" of how autism is expressed for an individual
3. A descriptive instrument
4. May be completed by a team
5. Provides a tool for assessing progress/change
The UCC Areas

- Social
- Restricted Patterns of Behavior, Interests, and Activities
- Communication
- Sensory Differences
- Cognitive Differences
- Motor Differences
- Emotional Vulnerability
- Known Medical or other Biological Factors

UCC-HF for HFA and AS

UCC-CL for Autistic Disorder

UCC-EI Early Intervention

Individual Strengths and Skills Inventory

- Social
- Behavior, Interests, and Activities
- Communication
- Sensory
- Cognitive
- Motor
- Emotional
- Biological

Social – UCC-CL

[3] Shows little interest in or response to praise

Social – ISSI

[8] Has difficulty imitating the actions or words of others

Engages in turn taking activity with parents

Plays near peers in classroom

Beginning to return social smile w/ parents
Additional Uses of the UCC and ISSI

- Reevaluation (informal)

<table>
<thead>
<tr>
<th>UCC Item</th>
<th>Strategies</th>
<th>Recommended IEP goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty expressing</td>
<td>Using picture books, video, mirror, photos, identify basic emotional</td>
<td>With prompting and modeling using visual supports, imitate identified emotions 8 out of 10 times.</td>
</tr>
<tr>
<td>thoughts and feelings</td>
<td>expressions. Video Bryan in actual interactions. Identify emotional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>expressions. Ask how he was feeling and show him expressions that match</td>
<td></td>
</tr>
<tr>
<td></td>
<td>that feeling</td>
<td></td>
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</table>

Additional Uses of the UCC and ISSI

- Assessment recommendations

Additional Uses of the UCC and ISSI

- Consultation

UCC to IEP

<table>
<thead>
<tr>
<th>UCC Item</th>
<th>IEP Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has difficulty recognizing the thoughts and feelings of others</td>
<td>Identify feelings of others in context by correctly predicting the feelings of others in a story or video 8 out of 10 times</td>
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</table>
### UCC to IEP

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<tr>
<th>UCC Item</th>
<th>IEP Objective</th>
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</thead>
<tbody>
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<td>Lacks tact or appears rude</td>
<td>Correctly identify laughter as expected or unexpected in a given situation 8 out of 10 times</td>
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<thead>
<tr>
<th>UCC Item</th>
<th>IEP Objective</th>
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</thead>
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<tr>
<td>Problems with transition and change</td>
<td>Given a reinforcer, utilize individualized daily schedule by checking of each activity as completed 95% of the time</td>
</tr>
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### Case Example

**Bryan**

### Target the Disability

- For students with ASD, the majority of the IEP objectives should target underlying needs in the areas of social understanding/functioning and communication.

### Failure to address critical areas of need places districts in peril of legal recourse.
Strengths of the Ziggurat and CAPS Models

1. Provides a process and framework for designing an intervention plan

"Make everything as simple as possible but not simpler"
- Albert Einstein

2. Addresses underlying characteristics of ASD by utilizing strengths and building skills

3. Emphasizes and enhances evidence-based strategies

4. Facilitates comprehensive intervention design and implementation

5. Facilitates use of proactive interventions

6. Facilitates interdisciplinary interventions
### Strengths of the Ziggurat and CAPS Models

7. Consistent with Positive Behavioral Interventions and Supports (PBIS) and other guidelines

- State standards
- Response to Intervention
- Individualized
- Evidenced based strategies
- Functional assessment
- Comprehensive
- Skill development
- Improves environment
- Team building
- Facilitates transitions

### Contact Information

<table>
<thead>
<tr>
<th>Name</th>
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<th>Phone</th>
</tr>
</thead>
<tbody>
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<td>214-227-7741</td>
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