

SOCIAL IMPAIRMENT IN AU

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PEIMS DATA - AU

2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
12.35%	13.0%	13.5%	13.7%	13.95%	14.63%	15.43%
58,945	64,783	71,951	80,557	84,431	92,912	108,464

2016-17 to 2022-22 percentage of AU in Texas =
increased from 12.35 to 15.43
In 7 years, an additional 49,519 students with AU

National percentage of AU based on Center for Education
Statistics (20-21) = 12%

Percentages of classifications in special education are based on the primary disability condition identified. Unlikely that the student has only one condition. Review of due process hearings from 2021-2023, indicates that about 88% of hearings involve students with co-occurring conditions.

COMMON COMORBID DIAGNOSES

- **SLD w/**
 - ADHD, Anxiety, Mood disorders, Language disorders
- **ID w/**
 - Medical conditions, ADHD, AU
- **AU w/**
 - ADHD, ID, Seizures, Gastrointestinal disorders, OCD/Anxiety disorders
- **ADHD w/**
 - SLD, Anxiety, Depression, ODD, CD, Sensory Processing disorders

HISTORICAL INFORMATION

- Prior to 1990, Autism was not a separate disability category under the IDEA.
- AU was a diagnostic condition under the category of Emotional Disturbance (ED).
- Thus, the exclusion clause in IDEA 300.8(C)(1):
 - *(ii) Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c)(4) of this section*
- Prior to DSM-5 (2013), could not diagnose AU and ADHD. It was believed that 30% of individuals were both, but clinicians had to choose.

AU COMORBIDITY

- *Autism Speaks* notes the following rates in AU samples
 - **ADHD** 30 - 61%
 - **Anxiety** 11- 40%
 - **Depression** 7%
 - **ID** 31%
- **SLD** can also co-occur, but ranges of rates not indicated; some estimates as high as 50%

DSM-5 TEXT REVISION (DSM-5-TR; 2022)

- DSM-5 p. 50: Autism Spectrum Disorder
- *Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive, see text):*
- Text Revision:
- ... as manifested by **all of** the following ...
- This revision makes it clear that all three are required: Deficits in social-emotional reciprocity, Deficits in nonverbal communicative behaviors used for social interaction, and Deficits in developing, maintaining, and understanding relationships.

DSM-5-TR

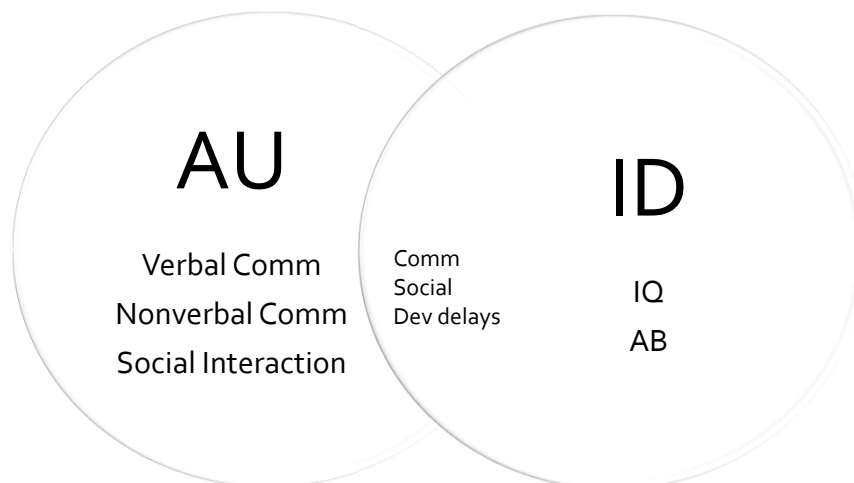
- The other change to the criteria is in the list of specifiers. Specifiers can accompany an autism diagnosis. For example, ASD with or without accompanying intellectual impairment.
- In this list, the DSM-5 (p. 51) noted: *Associated with another neurodevelopmental, mental, or behavioral disorder*.
- In the DSM-5-TR, the word “disorder” is replaced with **problem**.
- Thus, the specifier does not have to be a diagnosable condition. This allows for a clinician to indicate a problem that co-occurs with ASD but does not rise to the level of an additional diagnosis of a disorder.

DEFINITIONS

- Co-Occurrence/Comorbidity: Two or more conditions are present; the student meets the criteria for each condition
 - *Example: ID and AU*
- Differential classification/diagnosis: distinguishing one condition from others that present with similar features
 - *Example: AU not ID*
- Overlapping Symptoms: symptoms occur in two or more diagnoses
- Shared vs. Specificity

IMPAIRMENTS IN SOCIAL INTERACTION NOT LIMITED TO AU

- There are many diagnostic categories that include deficits in social interaction.
- Just a few in the DSM-5 that specifically involve deficits or abnormalities in social interaction or refer to "not better explained by" or "does not occur exclusively during the course of" ASD:
 - Social (Pragmatic) Communication Disorder
 - Various Personality Disorders such as: Schizoid, Schizotypal, Antisocial, Avoidant
 - Various Anxiety Disorders: Separation Anxiety, Selective Mutism, Social Anxiety Disorder (Social Phobia)
- And, many disorders have implications for social impairments (e.g., Intellectual Disability).
- Also, one of the ED criteria involves "inability to build or maintain satisfactory interpersonal relationships with peers and adults"



For comorbid diagnoses, social communication should be below that expected for developmental level.

QUALITATIVE IMPAIRMENT

- Distinctly deviant relative to the individual's developmental level or mental age
- Quantitative = "less of" of a particular skill or behavior
- Example: student has a limited vocabulary, which is consistent with her developmental level, but uses the vocabulary she does have for communicative purposes
- "atypical form" relative to a normative comparison
- Example: student has adequate language, but does not use language to effectively and reciprocally communicate with others (e.g., repeats phrases out of context, speaks of one topic)

DIFFERENCES IN DIAGNOSES WITH SOCIAL INTERACTION COMPONENTS?

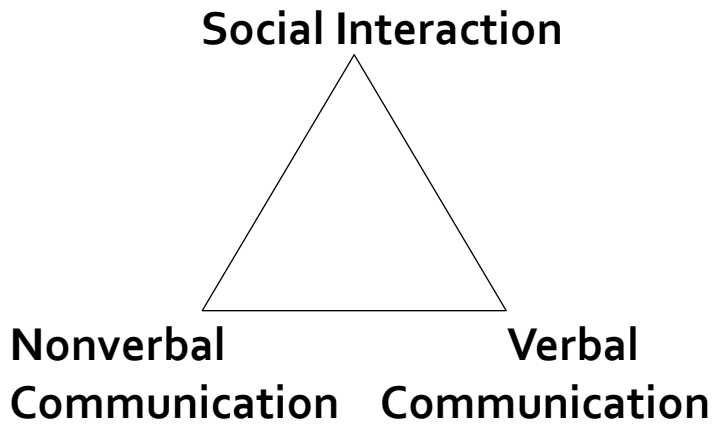
- Social Communication Disorder (SCD) does not involve restricted, repetitive patterns of behavior, interests or activities
- Schizoid, Schizotypal, and Avoidant:
 - beginning by early adulthood
 - Stereotyped behaviors and interests more pronounced in ASD
 - Avoidant: due to fears of negative evaluation/criticism/disapproval/rejection/feelings of inadequacy
- Antisocial (violation of social norms, disregard for social norms): occurring since age 15; prior to this is Conduct disorder
- Anxiety Disorder:
 - Separation Anxiety – not due to excessive resistance to change
 - Selective Mutism – specific; speaks in other situations; communication appropriate in certain contexts
 - Social Anxiety - fear or anxiety in social situation where exposed to possible scrutiny by others; social communication skills developed appropriately but are not used due to anxiety

AU: IDEA AND TAC

Autism	
34 CFR §300.8 Child with a disability	19 TAC §89.1040. Eligibility Criteria
IDEA, 2004	Texas
<p><i>Autism</i> means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, 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. Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c)(4) of this section.</p> <p>A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1)(i) of this section are satisfied.</p>	<p><i>Autism.</i> A student with autism is one who has been determined to meet the criteria for autism as stated in 34 CFR, §300.8(c)(1). Students with pervasive developmental disorders are included under this category. The team's written report of evaluation must include specific recommendations for behavioral interventions and strategies.</p>

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THE 3 CRITERIA FOR AU



SOCIAL DEFICITS

- The Social Deficit in students with AU is very complex.
- Factors are interrelated: **communication, cognition, and social responsiveness** interact to elicit behaviors in social interchanges.
- The typical give-and-take inherent in social situations is not present or significantly impaired in students with AU.
- Social interest may be present, but initiation and reciprocity in interactional exchanges are impaired.
- **Interaction** – how you relate to others; **Cognition** – how you think about others

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ASHA: SOCIAL COMMUNICATION

- Social Communication involves three major skills:
- Using language for different reasons (e.g., greeting, requesting, informing)
- Changing language for the listener or situation (e.g., skipping or adding details when someone knows or does not know a topic, talking differently to someone of a different age)
- Following rules of conversation or telling a story (e.g., taking turns, remaining on topic, using gestures, demonstrating facial expressions and eye contact)
- Remember: cultural and other factors influence social communication

- Reference: <https://www.asha.org/public/speech/development/social-communication/>

SOCIAL COGNITION

- Understanding of others' intentions, emotions and behaviors; how we process and interpret cues impact how we respond; wide range of abilities involving recognizing and processing emotions and tones of voice, attributing mental states to others, understanding social cues and contexts, ...
- Commonly referenced domains of Social Cognition: Theory of Mind – Cognitive (infer thoughts, intentions and beliefs of others), Affective (inferences about what others' feel); Social Perception; Social Knowledge; Emotion Processing; Attribution
- Process of Social Cognition:
 - **Attention to cue(s)**
 - **Interpretation of the cue(s)**
 - **Retrieving possible responses from memory**
 - **Making a decision regarding response options**
 - **Action – Behavior**

BUT...

- **Social communication & cognition deficits may appear on tests where no AU is present**
 - EXAMPLE: Excerpt in conclusions from SLP
 - EXAMPLE: Excerpt in conclusions from LSSP

THEREFORE...

- We must describe the responses provided by the students we assess versus just reporting a score on a test.
- We need to have a school-based multidisciplinary team conduct the FIE, and that team needs to involve teachers, the expertise of a speech language pathologist and other professionals (e.g., OTs, Behavior Specialists).
- There should be multiple evaluators. The information from each would be integrated to show if the behaviors are consistent with or inconsistent with the presence of the deficits associated with AU.

SOCIAL COGNITION

- Individuals with ASD have significant impairments in social cognition
- ESCOT (Edinburgh Social Cognition Test) for Adults
 - Measures COG TOM, AFF TOM, Interpersonal understanding of social norms, and Intrapersonal understanding of social norms
 - 11 cartoon-like interactions; animation presented on computer
 - 4 questions after each interaction: Initially, the question is can you tell me what is happening in this story starting with the first picture and finishing with the last picture. Then the 4 questions are: What is ___ thinking? How does ___ feel at the end? Did ___ behave as other people should have? Would you have acted the same as ___?
- Faux Pas Test (scenarios presented in which there could or could not be an awkward element; a series of questions are then asked to first acknowledge if there is something wrong and then identify it and explain why it was awkward)

COMMON INSTRUMENTS AND METHODS WE USE

- Interviews: ADI-R, MIGDAS-2, or specialized interviews (e.g., Sattler text)
- Observations: across settings, especially in setting which require various types of social interaction
- Tests: CELF-5 Metalinguistics, SLDT NU, TOPL-2, TOPS-3, CAPs
- Tests: ADOS-2, NEPSY-II (Theory of Mind and Affect Recognition), PEP-3
- Rating Scales: BASC-3, Conners CBRS, ASRS, SRS-2, GARS-3
- Team: CARS-2

TOM – SOCIAL-COGNITIVE SKILL

- The ability to attribute mental states (e.g., beliefs, intents, desires, emotions, knowledge) to oneself and to others. ToM is a sense of what others are thinking. ToM is necessary to understanding that others have beliefs, desires, intentions, and perspectives that are different from one's own. Helps us to form our responses.
- Tasks: Perception of emotions from facial expressions and from body postures; First order belief: what children think about real events (Michael thinks that Mary is angry); Second-order belief: what children think about other people's thoughts (Michael thinks that Mary thinks that he is angry with her)

Theory of Mind



https://www.youtube.com/watch?v=8hLubgpY2_w

JOINT ATTENTION

- JA= coordinating visual attention with a social partner; unfolds between 6 and 18 months; social orienting ; preverbal social communicative skill that involves sharing with another person the experience of a third object or event; TRIADIC EXCHANGE
- Pattern of JA: in kids with AU who are preverbal, communication is almost entirely requestive
- Protoimperative (use of gaze and/or gestures to gain another person's aid in obtaining a particular object or outcome) is greater than
- Protodeclarative (combinations of eye contact and gesturing but with the aim of calling another person's attention to the object or experience without any instrumental purpose)

SOCIAL REFERENCING

- Ability to read emotional cues in others to help determine how to act in a particular situation
- Includes the ability to
 - Recognize emotional expressions
 - Understand emotional expressions
 - Respond to emotional expression
 - Alter behavior in response to emotional expression

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RECIPROCITY

- The capacity to share attention (joint attention) and emotion (social referencing) with others
- Reciprocity includes
 - Ability to change (conversation or behavior) based on needs of or in response to interaction with partner
 - A mutual, shared experience
- In individuals with AU, reciprocity is specifically and universally impaired

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Responding to Others

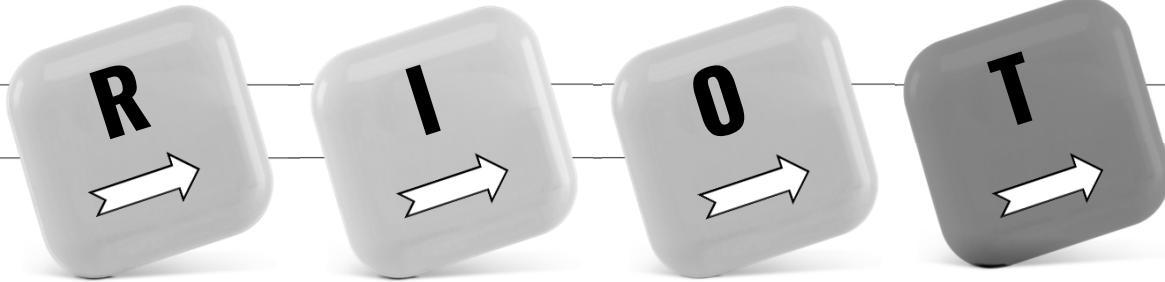


<https://www.youtube.com/watch?v=BMghOrj41ZU>

HOW DO WE MEASURE THESE CONSTRUCTS?

- REVIEW OF RECORDS
- INTERVIEWS and INFORMAL TECHNIQUES (e.g., communication samples involving narrative, sequence, conversation)
- OBSERVATIONS
- TESTS
 - RATING SCALES
 - DIRECT MEASURES ADMINISTERED TO STUDENT
- Remember, AU is a neurodevelopmental disorder and a thorough developmental history is critical. Often these children have been seen by external professionals and we need to obtain information from these individuals (e.g., physician, SLP, OT, Behavior Therapists).

Methods of Assessment



Is the record review comprehensive? Are there some data points missing? Do you have all the records? Do the records show consistency?

Who was interviewed and what is the perspective of each informant? Is there reason to believe the informant may over or underestimate the student's skills?

Setting and specifics of the observation; Do the observations yield information that is consistent with other data?

Did we use the right test or the test most likely to yield the information needed given the purpose of the assessment? Was it administered and scored correctly? Did the student's behavior affect results?

Possible problems in each component

MULTIPLE SOURCES, DISPARITIES

- The problem with rating scales –
 - based on the perception of the informant
 - do not explain why the behavior occurs nor how it is demonstrated. For example, an item such as: has trouble making friends – always to never
 - There may be disparities between the ratings of informants. For example, parent scales may be significant and teacher scales may not, or teacher scales may be significant and parent scales may not
- What happens when there are disparities between ratings of informants and between types of data – observations versus interviews (e.g., behavior reported in interviews are not observed) versus tests (performance of student on direct measures is not consistent with reported behaviors)?

CONVERGENCE

- **Cross-Validation** – divide data into segments and using one to prove another; done for accuracy and prediction
- When performing cross-validation, multiple types of data are used. For example, observation may be used to validate rating scale results. Performance on an instrument may be used to validate a naturalistic observation.
- If the data set is too disparate, conclusions will be difficult to form.
- Need convergence across data and examiners. Identify what is consistent across the evaluation process.

EXAMPLE TABLE FOR TEA CRITERIA

Domain	Definition/Characteristics	Data
Verbal Communication	This domain includes: Speech Acts (e.g. requests, responses, comments, direction, demands) that serve a communicative function. Prosody and Style Discourse (e.g., conversational exchange, topic maintenance, responsiveness).	The team discusses and identifies specific behaviors to indicate the presence of this characteristic or to contraindicate the presence of this characteristic
Nonverbal Communication	This domain includes: Body language Eye Contact Gestures Facial Expressions Gaze (shifts)	The team discusses and identifies specific behaviors to indicate the presence of this characteristic or to contraindicate the presence of this characteristic
Social Interaction	This domain includes: Rules for linguistic politeness Social reasoning and social cognition Social tasks (accessing peer groups, cooperative play) Reciprocity (e.g., initiating and responding to bids for interaction, taking turns)	The team discusses and identifies specific behaviors to indicate the presence of this characteristic or to contraindicate the presence of this characteristic

SOME FINAL THOUGHTS

- **Profile of social difficulties in AU is different:**
 - Lacks desire for social interaction; interactions if attempted are awkward (AU abnormal social approach; AU failure to initiate or respond)
 - Lacks mutuality in relationships (no interest in doing what others want or in changing based on what others want or are talking about)
 - Unable to read social cues and unwritten rules
 - Has difficulty understanding his/her own feelings as well as those of others; difficulty responding to the feelings of others due to lack of understanding

SOME FINAL THOUGHTS

- **Profile of communication is different:**
 - Tends to speak on preferred topics; may be perseverative
 - Unusual voice inflection/prosody
 - Conversational exchange is atypical
 - Eye contact, gestures, facial expressions; lack of integration between verbal and nonverbal communication
- **Pattern of behavior is different:**
 - Stereotypic, ritualized routines, fixated interests, response to sensory input