



# Overview of CARD & Autism Spectrum Disorders

**Jennifer Stella Durocher, Ph.D.**

Clinical Associate Professor of Psychology

Director, UM-NSU CARD

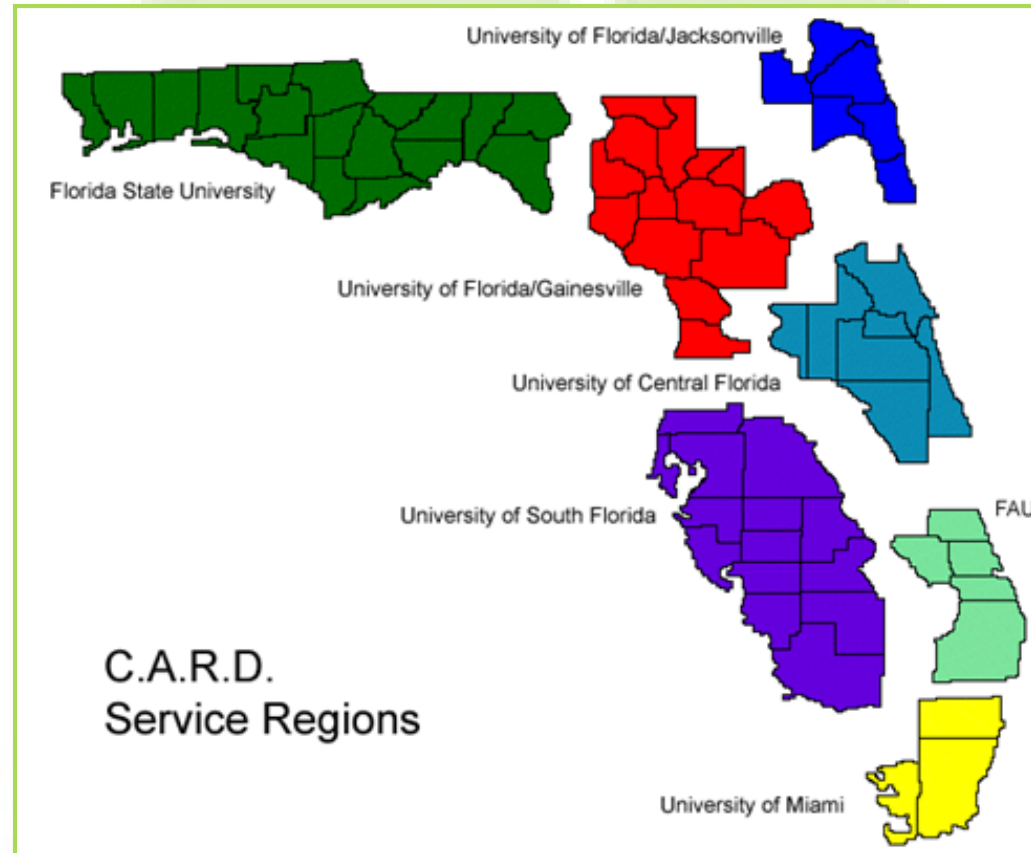
# CARD: Our Mission

*CARD seeks to provide support and assistance with the goal of optimizing the potential of people with autism, dual sensory impairment, and related disabilities.*

All seven Florida Centers for Autism and Related Disabilities share this mission.

# CARD Overview

- Statewide Technical Assistance Project
- One of 7 University-Based Regional "Centers"
- Funded by Florida Legislature through State Department of Education
- History: Driven by Parents & Professionals
- Current Client Registry = **just over 10,000 constituents\***



**\*Data from 1st Quarter Report of FY 2016-2017**

# CARD Sites

UNIVERSITY  
OF MIAMI



NSU NOVA  
SOUTHEASTERN  
UNIVERSITY

UM-NSU CARD serves the South Florida Community:

- UM-NSU CARD serves the South Florida Community:
  - Miami-Dade County, UM Main Office
    - Homestead Branch office
    - Miami Lakes Branch office
  - Broward County, NSU Satellite
    - Miramar Branch office

# Who is Eligible for CARD Services?

- Individuals of any age diagnosed with any of the following disabilities may register with CARD:
  - Autism Spectrum Disorders
    - Autistic Disorder
    - Asperger Syndrome
    - PDD-NOS (Pervasive Developmental Disorder-Not Otherwise Specified)
    - Childhood Disintegrative Disorder
  - Dual Sensory Impairments
  - Sensory Impairments with Other Disabling Conditions
- Family members, agencies and/or professionals working with these individuals are eligible to receive CARD services

# Registering for CARD Services

- Contact CARD office to register
  - 1-800-9-AUTISM ext. 1 or 305-284-6563
- Intake process includes collecting:
  - Contact information
  - Consent and release
  - Diagnostic reports
- Assessment of needs completed by intake specialists

# Autism Spectrum Disorders

## *What we know*

- Complex developmental brain disorder
- Thought of as a spectrum of disorders
- Significantly impacts social skills & communication
- All racial, ethnic, and social classes are affected
- No known cause
  - May be many different factors, but genetics are primary
  - Likely gene/environment interactions

# Prevalence & Medical Conditions

- Occur in approximately 1 in 59 children; it is almost 4 to 5 times as common in boys as it is in girls

*Centers for Disease Control – Prevalence of the ASDs in Multiple Areas of the U.S., Surveillance Year 2014 <https://www.cdc.gov/ncbddd/autism/data.html>*

- All racial, ethnic, and social classes are affected

- Minorities and females may be under-recognized

- Approximately 20-25% develop seizures

*Canitano, R. (2007). Epilepsy in autism spectrum disorders. *European Child & Adolescent Psychiatry*, 16(1), 61-66.*

- Autism & IQ:

- A wide range of IQ scores are reported, including InD and giftedness
- 44% have average to above average IQ
- Uneven development in skills/abilities



# Other Associated Characteristics

- Uneven development in skills/abilities
- Often occurs along with other disabilities
- Often present with learning challenges
  - Distractibility, organizational difficulties, generalization/maintenance difficulties, unique motivational systems, behavior problems
- 10% have co-occurring psychiatric diagnosis (e.g., depression, anxiety)

# How is ASD Diagnosed & Treated?

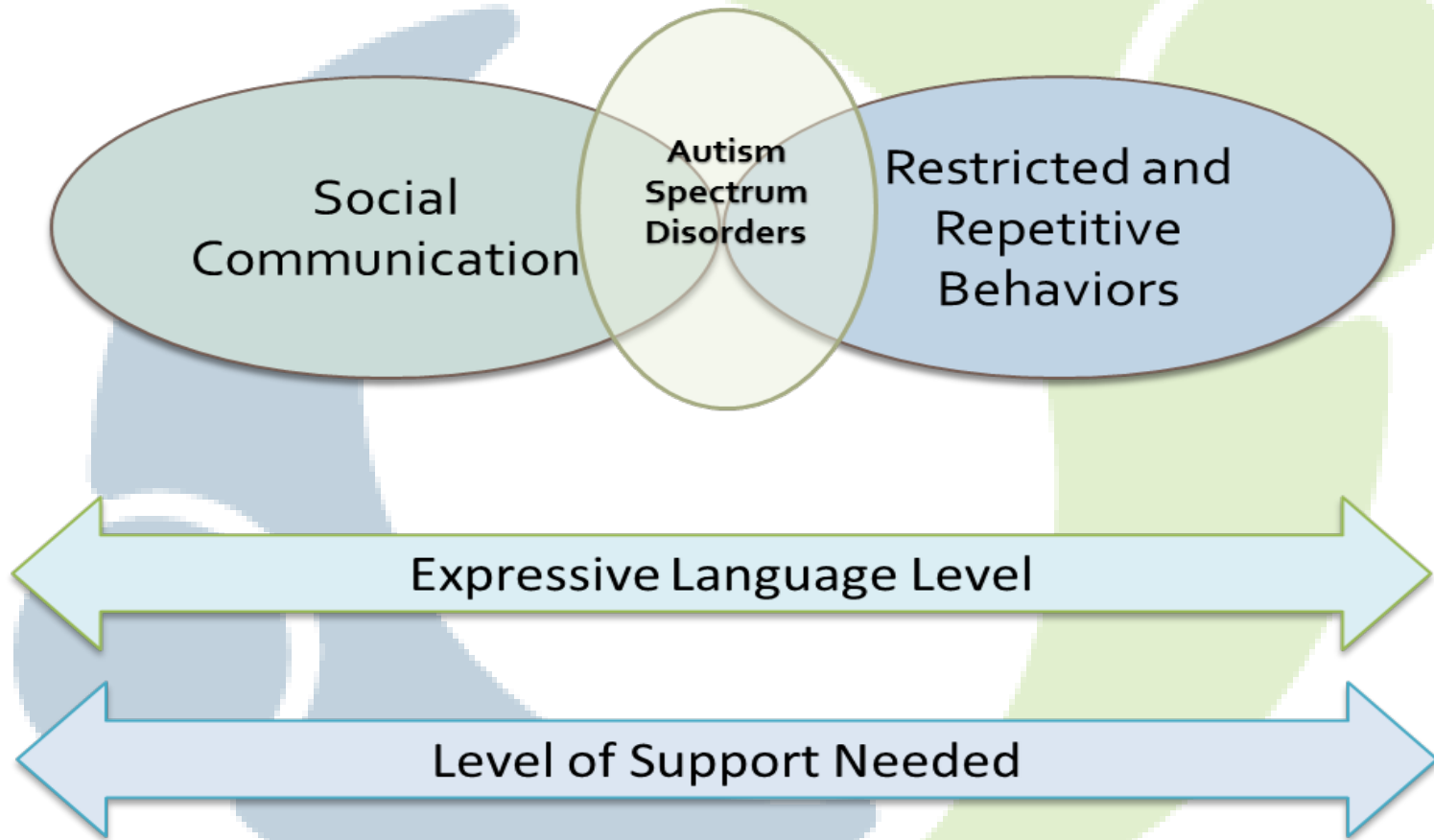
- No blood or medical test to detect ASD
  - Diagnosis is based on observed behavior and development
  - Can sometimes be detected by 18 months
  - Can be reliably diagnosed by age 2 years (Lord et al., 2006)
- No known “cure”
  - Early intervention and evidence-based treatment (e.g., ABA) can significantly improve development (Wong et al., 2013)
  - The earlier the intervention, the better!



# Autism Spectrum Disorders

Common Challenges

# What Main Areas are Affected?



# Social Challenges

- Making eye contact & using gestures
  - <https://resources.autismnavigator.com/asdglossary/#/section/13/gestures>
- Understanding nonverbal communication, like facial expressions and gestures
- Identifying and “sharing” emotions
- May seem shy or nervous about interacting
- May not respond to others’ attempts to interact
- May have trouble taking turns or working collaboratively



# Joint Attention

**Pointing**



**Showing**



**Gaze Shifts**



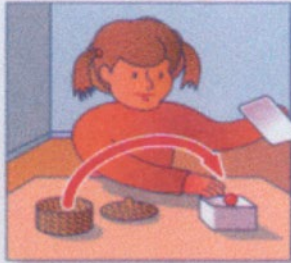
# Social Cognition

## Perceiving mental states

**1** Sally puts her marble in the basket, replaces the lid and leaves the room.



**2** While Sally is gone, her friend Anne takes the marble out of the basket, moves it into the covered box and replaces both of the lids.



**3** When Sally comes back into the room, the two containers look just the way she left them. Where do you think she will look for her marble?



What are you doing, Denzel?



Playing with this.

## Theory of Mind

The ability to take another's perspective or "put yourself in their shoes".

Difficulty Explaining Own Behaviours

Difficulty Understanding Emotions

Difficulty Predicting the Behaviour or Emotional State of Others

Problems Understanding Perspectives of Others

Problems Inferring the Intentions of Others

Lack of Understanding that Behaviour Impacts How Others Think and/or Feel

Problems with Joint Attention and Other Social Conventions

Problems Differentiating Fiction from Fact

# Peer Relationships & Play Challenges

- May not imitate simple household routines
- May not engage in more complex pretend play (e.g., playing “house”)
- May have trouble sharing, taking turns or working collaboratively
- May seem to ignore others and/or uninterested in other children
- May seem to prefer solitary activities
- May have trouble making friends





# Communication Challenges

All individuals with ASD have some difficulties with communication

- 🕒 May have difficulty following discussions and explanations
- 🕒 May “echo” what you say immediately or repeat phrases that they have previously heard
- 🕒 May have trouble with pronouns
- 🕒 Language may be repetitive; may repeat a phrase or become stuck on a thought or topic
- 🕒 May make off-topic comments or fail to provide background information
- 🕒 May interrupt others, end conversations abruptly, or continue talking without awareness of how to end the conversation
- 🕒 May have difficulty with jokes, expressions of speech and sarcasm
- 🕒 May interpret information literally, particularly idioms and clichés (e.g., “a chip on your shoulder” “you put your foot in your mouth”)
- 🕒 May use formal sounding language or vocabulary well above their age level

# Restricted & Repetitive Behaviors

- Repetitive or unusual use of language (e.g., echolalia, stereotyped speech)
- Unusual motor mannerisms
  - <https://resources.autismnavigator.com/asd/glossary/#/section/38/unusualMotor>
- Problems being “flexible” and become anxious or angry if rules or schedules are not followed
- May use objects repetitively or in unusual ways
- May have highly restricted/fixated interests
- May have tantrums and/or display self-injury



# Reactions to Change / Inflexibility

🌀 Have *strong reactions* to changes in their environment or to routines, such as:

- Furniture, toys, favorite objects are moved
- Routines are completed out of sequence
- Different brands of food are provided
- A different route is taken to a familiar location
- There is a substitute teacher or activity

🌀 Have problems being “flexible” and may become anxious or angry when

- Things don’t happen the way they are supposed to or they expect them to....
- We do not provide a predictable environment
- When others break the rules
- When they are not able to complete an activity



# Sensory Processing

• Frequently exhibit sensitivities and peculiarities in the way they process information within specific sensory modalities

• May be under- or over-sensitive

• Sounds / Noise

• Touch

• Taste

• Smell

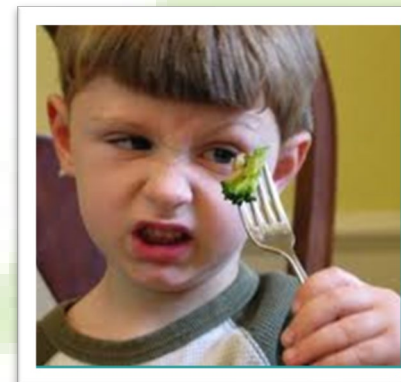
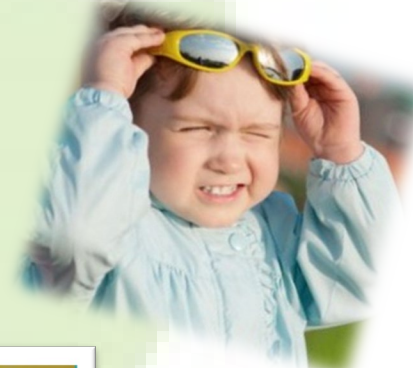
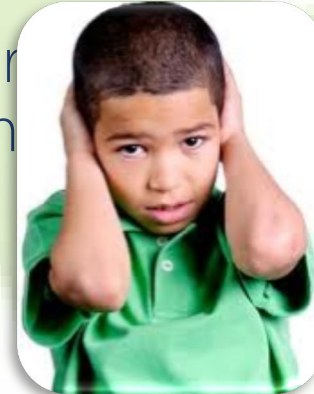
• Light

• Temperature

• Pain

• Personal Space

• Movement



# Sensory Overload

- Many individuals with ASD are hypersensitive to sensory stimuli
  - Sensory overload occurs when one or more of the body's senses experiences overstimulation from the environment
- Others are hyposensitive or reactive, causing them to need increased level of sensory input to respond
- Both patterns may be present in the same individual at different times
- [http://blog.theautismsite.com/sensory-overload-simulation/?utm\\_source=social&utm\\_medium=autaware&utm\\_campaign=sensory-overload-simulation&utm\\_term=20140923](http://blog.theautismsite.com/sensory-overload-simulation/?utm_source=social&utm_medium=autaware&utm_campaign=sensory-overload-simulation&utm_term=20140923)

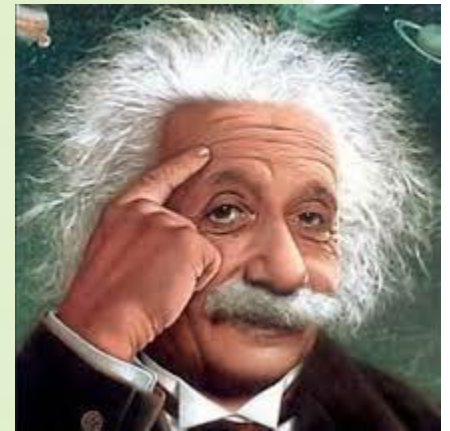
# Signs of Sensory Sensitivities

- Children with sensory sensitivities often exhibit behavior problems
- Exposure to aversive sensory input can cause a “fight or flight” reaction in an attempt to avoid the stimuli
  - Shuts down or withdraws in presence of stimuli
  - Tantrums or protests in the presence of certain stimuli
  - Actively resists activities involving that stimuli
  - Becomes overactive or disorganized when encountering different stimuli

- Addressing Sensory Sensitivities should include the following:
  - Providing strategies and activities to maintain optimal level of attention and arousal
  - Modifying tasks to reduce sensory and motor demands
  - Changing the environment so that overwhelming or aversive stimuli are minimized or avoided
  - Using strategies to help the child tolerate different sensory input

# Areas of Strength

- Visual processing
- Attention to detail
- Memory
- Basic academics
- High level of interest (and skill) in a specific area
- Logical
- Rule-following
- Honest, loyal, dependable
- Can have advanced vocabularies



# Autism Spectrum Disorders

Common Strategies that Help!



# What are visuals and how are they used?

Anything that we *see* that:

- Helps us communicate
- Helps us gain information or understand expectations

Visual Supports can be used to assist individuals in understanding expectations:

- Schedules, Routines & Transitions
- Choices
- Communication
- Social & Behavioral Cues

**WE ALL USE & NEED VISUALS!**



# Benefits of Visual Supports

- Increases vocabulary
- Increases spontaneous communication
- Allows for choice-making
- Helps explain rules and expectations
- Increases predictability
- Helps with independence
- Decreases challenging behaviors/frustration



# Strategies to Address Sensory Problems

- 🕒 Provide extra time, alternate methods of responding (dictation, computer) and/or reduced workloads to demonstrate mastery
- 🌊 Dim the lights and/ avoid overly noisy environments
- 🎧 Permit accommodations (e.g. headphones, earplugs, sunglasses, fidget toys) (see [nationalautismresources.com](http://nationalautismresources.com))
- 🏠 Create a “safe place” where a child can go when overwhelmed
- 🚫 Don't force participation if a child is uncomfortable
- 🚨 Warn the child before fire drills, bright lights, etc.



# Sensory Diet

- Term is a metaphor for a nutritional diet
  - Similar to snacks, some sensory-based activities might change our mood or state of alertness for short periods of times
  - Other sensory activities (like meals) have longer-lasting effects
- A proper “sensory diet” can help provide the right “nutrition” to the nervous system so that we can function in an optimal way
- Individualized to the child’s sensory needs
  - Sensory-based activities are scheduled throughout the day to try and keep the child at an optimal level of arousal and functioning
  - Sensory “breaks” are interspersed with learning, social and community activities to help the child regulate their mood and attention



For more information contact:  
1-800-9-AUTISM x 1

Miami-Dade & Monroe, 305-284-6563  
Broward, 954-262-7111

Website: [www.umcard.org](http://www.umcard.org)

Facebook: [www.facebook.com/umnsucard](http://www.facebook.com/umnsucard)