TOPICS

Nature of the autism spectrum

Deciding: Where is this person on the spectrum? Beyond DSM-IV

Treatment: behavioral and pharmacological

An Official Notice...

I do not have a significant relationship to any pharmaceutical manufacturer

Some of the medications which I will be discussing are ones which are not approved for use with children.

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PREVALENCE OF AUTISM SPECTRUM DISORDER

ONE IN ONE HUNDRED AND TEN PERSONS!!

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www.cdc.gov
FIRST, SOME BACKGROUND

DOES THIS 45-YEAR-OLD MAN HAVE “HIGH FUNCTIONING AUTISM”?  
His psychiatrist says he does

TONY ATWOOD SPEAKS

45-YEAR OLD MAN WHO HAS AUTISM IS CURED!!

AUTISTIC DISORDER (DSM-IV)  
The essential features of Autistic Disorder are the presence of markedly abnormal development of social interaction and communication and a markedly restricted repertoire of activity and interests.

BEYOND DSM-IV  
• FROM A CATEGORICAL TO A CONTINUOUS FORM OF CLASSIFICATION

A SPECTRUM DISORDER
A Spectrum of Social Communication

**DOMAINS OF SOCIAL COMMUNICATION**

- Facial Expression
- Prosody
- Gesture
  - instrumental
  - social
  - emotional
- Pragmatics and ‘Theory of Mind’

**FACES**

**THEIR GRANTS WERE FUNDED**

**THEIR GRANTS WERE NOT FUNDED**
ONCE MORE:

**What is social communication?**

- Social communication refers to the communication of cognitive and emotional information through:
  - facial expression
  - gestures: instrumental and emotional
  - prosody

**DEVELOPMENT OF SOCIAL COMMUNICATION - ONE WEEK**

- Recognizes mother’s voice
- Recognizes mother’s face
- Looks at complex visual stimuli
- Mimics facial movements

**Development of Social Communication: 0-6 months**

- Eye contact, social smile
- Driven to interact intersubjectively especially when caretaker uses motherese:
  - exaggerated tone of voice
  - exaggerated gestures
  - exaggerated facial expressions
- AFFECTIVE RECIPROCITY

**Development of Social Communication: 12-24 months**

- Pragmatics and ‘theory of mind’
  - theory of mind involves explicit awareness that others have thoughts and feelings different from our own that can be used to enhance our interpersonal relationships
  - pretend play skills are hypothesized to be the earliest indicators for this capacity
**EARLIEST EXAMPLES OF THEORY OF MIND**

The ‘Visual Cliff’ Experiments

**TASKS ASSESSING MIND READING SKILLS AND SOCIAL IMAGINATION**

- Imaginative play alone
- Imaginative play with peers

**THE FUNCTION OF PLAY**

- Improve fine and gross motor skills
- Seek mastery of social games
- Re-enactment of traumatic events
- Pretend social roles and interactions

**“Bumping into Mr. Ravioli”**

The extraordinary tale of Adam Gopnik’s three-year-old daughter, as told in the September 30th, 2002, issue of the New Yorker Magazine

**Evaluation of persons for social communication spectrum disorder**

**Screening of Infants for social communication spectrum disorder**
SCREENING FOR AUTISM AT 18 MONTHS OF AGE

The CHAT

(Checklist for Autism in Toddlers)

Baron, C.S., Allen, J., Gillberg, C. (1992), Can autism be detected at 18 months? The needle, the haystack, and the CHAT. Br. J. Psychiatry 161:839-843

THE CHAT

• **Asking** caretaker about child’s specific social behaviors

• **Observation** of child’s social behaviors

ASK:

**Does Your Child:** (Yes/No)

• Enjoy being bounced and swung?
• Take an interest in other children?
• Enjoy peek-a-boo, hide-and-seek?
• Ever pretend?
• Use index finger to point to ask?
• Use index finger to point to show interest?
• Play properly with small toys?
• Brings things to show you?

OBSERVE: (Yes/No)

• Does child make eye contact with you?
• Does child follow point (“Oh look at the..”)?
• Can the child pretend to feed the doll with make-believe milk?
• Look at an object, then at child, and ask “Show me the….”

CHAT KEY ITEMS

• Pretend Play
• Protodeclarative pointing
• Follow a point
• Pretend play with doll and cup
• Points to show examiner an object

ADDITIONAL IMPORTANT DIAGNOSTIC ISSUES

• Language development
• Intellectual capacity
• Sensory: auditory, tactile, visual hypersensitivities
• Motor: fine and gross
• Co-morbid conditions: anxiety, depression, OCD
Genetic Structure of Reciprocal Social Behavior

- **Social Reciprocity Scale**
  65-item parent or teacher questionnaire asking about skills in reciprocal social behavior.
  The scale generates a summary score that serves as an index of skill or deficit in each person


Genetic Structure of Reciprocal Social Behavior

- Parents of 232 male twin pairs age 7-15 randomly selected from a twin registry.
- Interclass correlations:
  - 0.73 for identical twins
  - 0.37 for fraternal twins


Genetic Structure of Reciprocal Social Behavior

- 788 twin pairs, 7 to 15 years of age, randomly selected from the Missouri Twin Registry
- Autistic traits as measured by the Social Responsiveness Scale are continuously distributed in the general population


Genetic Structure of Reciprocal Social Behavior

- Twins aged 18 years (n = 370) and their siblings (n = 94); parents of twins (128 couples)
- Autism-Spectrum Quotient (AQ) scores
- Autistic traits were continuously distributed in the population. Twins and siblings did not significantly differ in AQ scores

THE TREATMENT OF SOCIAL COMMUNICATION SPECTRUM DISORDERS

Four leading institutions (AAP, AACAP, Surgeon General, NAS) have called for early intervention, including one-on-one therapy, for children with autism. A panel of experts convened by the Academy recommended a minimum of 25 hours a week, 12 months a year.

New York Times, October 22, 2002

Fewer than ten percent of children are getting the recommended level of therapy. Almost everywhere schools will say kids are getting services, but what they are getting varies enormously.

Catherine Lord

Our problem is not that we lack effective methods of treatment but that we lack the public (Federal and State Government) interest to train therapists (including teachers and parents), and to pay for adequate delivery of services to all children with developmental disabilities, from infancy to adulthood.

FUNDAMENTAL APPROACHES TO TREATMENT

PRINCIPALS OF TREATMENT: AFFECTIVE RECIPROCITY

- Intense ‘motherese’
  - exaggerated social signals
  - identify what motivates
  - repetition (songs, games, activities)
  - move to more complex materials
  - groups of one and two children
**PRINCIPALS OF TREATMENT: SOCIAL KNOWLEDGE**

- Social coaching
  - classroom
  - playground
  - small groups
  - best friends

**PEER MEDIATION**

Less effective:

- Board games about friendship
- Observations of others interacting
- Stories about friendships

More effective:

- Peer mentors (maturity, empathy, motivation, patience)
- Social groups (with both typical and autistic children)
- Initiation of social interaction by the child

**PEER MEDIATION**

Role playing and behavioral rehearsal

- “Conversation in lunch room”
- “On the playground”
- “Another child comes to house your to play”

**VIDEO PRESENTATION**

ARE THIS MAN AND THIS WOMAN COMMUNICATING社ALLY?

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