

Building Standards of Practice in Autism Treatment

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Overview

- Brief review of autism
- Goals of treatment
- General comments on treatment
- Review treatment options
 - Psychoeducational interventions
 - Treatment of medical problems
 - Medication to target behavior
 - Complementary and alternative medicine
 - Family support

What is Autism?

- Autism is a complex neurological disorder that negatively impacts the way in which a child interacts with his or her environment
- Three core features:
 - Impairment in social interactions
 - Impairment in communication
 - Repetitive and/or restricted interests and behaviors

Goals of Treatment

- Minimize the core features and associated deficits
- Maximize functional independence and quality of life
- Alleviate family distress

Can We Standardize Treatment for Autism ?

- Limitations of studies in this field of research
- Majority of reviews are inconclusive
- Poor research makes it difficult to draw meaningful conclusions about the comparative effectiveness of treatment options
- There is often a degree of overlap between many interventions and most treatments are not intended to be used in isolation
- Lack of evidence of effectiveness is not the same as known ineffectiveness

Treatment (General Thoughts)

- Be suspicious of people who say they can cure autism
- Chronic management is required
- There are several treatment options
- The more that is done at an early age, the better the results
- Always start with parent education and support

Autism Treatment; General Thoughts: Isabelle Rapin, MD, 2006

- Focus on effective treatments and stop useless treatments
- Educate physicians about Red Flags and intervene early (M-CHAT)
- Individually tailor approaches and use multiple approaches
- Use strengths to circumvent deficits
- Involve family extensively

Rapin, 2006 cont.

- Stop looking for a cure
- Stop striving for normality
- Think adaptation, not fixing
- Consider the individual's needs
- Tolerate socially acceptable differences
- Welcome unique contributions of the person

Working with Children: (Shamoon Shanok, 1999)

- Parent needs to become the center of the child's world and we need to help parents become skilled and competent in understanding and working with their child
- Always think intervention so that families leave the session with strategies to help their child (even during assessments)

Shamoon Shanok, 1999 cont.

- Professionals can be a bridge that interprets the child's behaviors to the parents
- Professionals should listen with their heart to understand parent's fears and their "lost" dream and give them hope and direction.

Caregiver Synchronicity; Siller and Sigman, JADD, 2002

- Children with autism whose caregivers had higher levels of synchronous behavior (joint attention, focus on child's toy choices, caregiver showed/pointed to or talked about objects to which the child was already attending) developed superior communication over a period of 1, 10, and 16 years. Caregiver's sensitivity to child's interests provides purposeful experience.

Siller and Sigman cont.

- The strongest predictors of the child's future gain in language skills were caregiver utterances that were synchronized with the child's focus of attention and also undemanding in quality (matching comments with toys and activities in which the child was already engaged instead of demanding an activity that is different from what the child is doing).

Essential Elements of Effective EI Programs for Children with Autism (Ozonoff, et al, 2003)

- Early intervention, ASAP
- Intensive, 25 hours per week
- Family participation in goal setting
- Intervention individualized
- Treatment delivered by experienced, professional teams

Essential Elements, cont.

- Target social attention, peer interaction, functional spontaneous language, appropriate toy play
- Decrease problem behaviors using positive behavioral approach
- Evaluate progress frequently and adjust as needed.

Appropriate Services (Dawson & Osterlong, 1997)

- Entry into intervention as soon as an ASD diagnosis is seriously considered
- At least 20-25 hours per week, 12 months per year
- Curriculum emphasizing the ability to attend, to imitate, to comprehend and use language, to play appropriately with toys, and to interact socially
- Highly supportive teaching environment (initial 1:1 to 1:2 staff to student ratio)

Appropriate Services, cont.

- A highly structured environment (predictability and routine)
- Functional approaches to problem behaviors
- Generalization
- Involvement of parents in the education process

Early Intervention

- Wood and Wetherby, 2006
 - Early social interaction project
 - 17 children who entered in 2nd year vs 18 who entered services in the 3rd year
 - 2nd year group had significantly better performance on verbal and nonverbal development but similar in play

Types of Treatment

- Psychoeducational interventions (categorized as behavior analytic, developmental, or structured teaching)
 - Comprehensive intervention programs
 - Interventions addressing specific skills
- Treatment for medical problems
- Medication to target behavior
- Complementary and alternative medicine
- Family support

Educational Interventions

- Academic learning
- Socialization
- Adaptive skills
- Communication
- Amelioration of interfering behavior
- Generalization of abilities across multiple environments

Applied Behavior Analysis

- Focuses on the reliable measurement and objective evaluation of observable behavior within relevant settings
- Discrete Trial Training
- Incidental Teaching
- Natural language paradigm/pivotal response training
- Functional Behavior Analysis

Structured Teaching

- The TEACCH method
- Organization of the physical environment
- Predictable sequence of activities
- Visual schedules
- Routines with flexibility
- Structured work/activity systems
- Visually structured activities

Developmental Models

- The Denver model
- Developmental, individual-difference, relationship-based (DIR) model
 - Floortime
- Relationship-development intervention (RDI)
- Responsive-teaching (RT)
- Hanen

Alternative/Augmentative Communication

- Picture Exchange Communication System
 - Prompt which is gradually faded so child uses a picture symbol to represent object wanted
 - Child learns intentionality, cause and effect, intermediate step for symbolic communication; visual and auditory links are clear
- Sign language
- Functional communication training
- Voice output communication aids

Social Skills Instruction

- Joint attention training
- Social skills groups
- Social stories
- Visual cueing
- Social games
- Video modeling
- Scripts
- Peer-mediated techniques

Occupational Therapy

- Traditional occupational therapy
- Sensory integration
 - “remediate deficits in neurologic processing and integration of sensory information to allow the child to interact with the environment in a more adaptive fashion”

Associated Medical Concerns

- Seizures
- Sleep disturbances
- Gastrointestinal disorders
- Headaches
- Dental
- Genitourinary
- Hormonal imbalance
- Psychopharmacology

Treatment – Medication “Why Use Medication?”

- Despite nonpharmacologic interventions, some individuals remain significantly impaired
- Behaviors can complicate clinical management
- Medication can be useful in reducing interfering symptoms
- Medication can target specific associated symptoms
- Medication can allow other treatment interventions to be more effective

Symptoms that Medications Can Treat

- Aggression
- Disruptive/irritable behavior
- Anxiety
- Self-injurious behavior
- Stereotypies
- Repetitive behaviors
- Hyperactivity/impulsivity
- Inattention
- Affective lability

Problems with Medications

- Lack of adequate research
- Poor heterogeneous response to medications
- Side effects
- Most medications are used “off label”

Approach to Medications

- Try to see what’s driving behavior
- Use non-pharmacological treatments first
- Target specific behaviors
- Before starting any medication, patients need a good history and general examination to rule out any underlying medical problems
- Medications are never used alone, it should be part of a comprehensive, multidisciplinary treatment approach

Approach to Medications

- Approach it as a trial
- Start with a low dose and go slow
- Avoid polypharmacy
- If there are side effects, the medications can be discontinued
- Patients are not being forced into a lifetime of medication
- It does not mean that families have failed

Evaluating Behavior Before Starting Medication (ABC's)

- Antecedent
 - “ Escape – to escape from an unpleasant experience (eg: from chores; ASD – from other people in social situations)
 - “ Attention – to get parent's attention (eg: when parent on the phone or tending to a sibling)
 - “ Tangible – to obtain comfort object (eg: food, toy, candy in grocery check-out line)
 - “ Sensory – to stimulate or sooth one's self when bored, anxious or overstimulated (eg: bang head, biting self)
- Behavior
- Consequence
 - Both positive and negative

Medication Options

- Antipsychotics (typical & atypical)
 - aggression, agitation, self-injurious behaviors
- SSRI's
 - repetitive behaviors, anxiety, and aggression
- Psychostimulants
 - hyperactivity, impulsivity, inattention
- Mood stabilizers
 - mood lability, aggression
- Alpha adrenergic agonists
 - hyperactivity

Neuroleptics (Antipsychotics)

- Target Sxs: irritability/agitation, SIB, aggression
- SE:
 - Typical: Extrapyrarnidal sxs, tardive dyskinesia, dry mouth, constipation, sedation
 - Atypical: fewer extrapyramidal sxs, weight gain, sedation
- Dose
 - Risperdal: .25mg – 2mg BID
 - Abilify: 2.5-15 mg per day
 - Zyprexa: 2.5-15 mg per day, typically divided BID
 - Seroquel: 50-600 mg per day

SSRI's

- Target Sxs: repetitive behaviors, anxiety, depression
- SE: agitation, irritability, disinhibition, GI sx, HA, insomnia
- Dose: (start very low)
 - Prozac: 5-40 mg
 - Zoloft: 12.5-200 mg
 - Celexa: 10-40 mg
 - Luvox: 50-300 mg
 - Lexapro: 5-20 mg

Stimulants

- Target Sxs: hyperactivity, impulsivity, inattention
- SE: irritability, agitation, decreased appetite, increase sleep latency
- Dose: (start very low)
 - Methylphenidate .5mg/kg
 - Amphetamine .25mg/kg

Alpha Adrenergic Agonists

- Target sx's: hyperactivity, impulsivity, aggression
- SE: sedation, HA, hypotension(rare), rebound HTN
- Dose:
 - Clonidine: .025-.1 mg, BID-TID
 - Tenex: .5-1 mg BID

Complementary and Alternative Medicine

- The use of CAM is common in children with ASDs
- Families want to gain a sense of control and want to improve the quality of life of their child and family
- “Nonbiological”
- “Biological”

Complementary and Alternative Medicine, cont.

- Nutritional supplements
- Food sensitivities/elimination diets
- Immunoglobulin therapy
- Fungal
- Chelation/detoxification
- Secretin
- Sensory integration
- Auditory integration

AAP Policy on Complementary and Alternative Medicine

- Seek information, share with family
- Evaluate scientific merits of specific therapies
- Identify risks and potential harmful effects
- Avoid therapeutic nihilism
- Educate families to be critical consumers
- Avoid dismissal, lack of sensitivity
- If CAM is chosen against advice, continue to offer care
- If CAM is endorsed, monitor and evaluate response
- Guard against defensiveness

Family Support

- Education about ASDs
- Anticipatory guidance
- Training and involving parents as cotherapists
- Helping to access resources
- Emotional support
- Assisting parents in advocating for their child

Family Support, cont.

- Natural supports
- Informal supports
 - Social networks
 - Agencies that provide training
- Formal supports
 - Early intervention/Special education
 - Vocational and residential/living services
 - Respite services
 - Medicaid
 - Supplemental Security Income benefits
 - Developmental disabilities