

Autism Treatments

Current Interventions in Autism — A Brief Analysis

| | Lovaas | TEACCH | PECS |
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| Background | also known as Discrete Trial (DT), Intensive Behavior Intervention (IBI), Applied Behavior Analysis (ABA); DT was earliest form of behavior modification; initial research reported in 1987; initial intent to achieve inclusive kindergarten readiness; has "morphed" into IBI and ABA. | stands for Treatment and Education of Autistic and related Communication-handicapped Children; over 32 years empirical data on efficacy of TEACCH approach exists; includes parents as co-therapists; recognizes need for supports from early childhood through adulthood; main focus is on autism rather than behavior. | stands for Picture Exchange Communication System; derived from need to differentiate between <i>talking</i> and <i>communicating</i> ; combines in-depth knowledge of speech therapy with understanding of communication where student does not typically attach meaning to words and lack of understanding of communication exists; high compatibility with TEACCH. |
| Goals | teach child <i>how to learn</i> by focusing on developing skills in attending, imitation, receptive/ expressive language, pre-academics, and self-help. | provide strategies that support person throughout lifespan; facilitate autonomy at all levels of functioning; can be accommodated to individual needs. | help child <i>spontaneously</i> initiate communicative interaction; help child understand the <i>function</i> of communication; develop communicative competency. |
| How Implemented | uses ABC model; every trial or task given to the child consists of: antecedent — a directive or request for child to perform an action, behavior — a response from the child that may include successful performance, non-compliance, no response, consequence — a reaction from the therapist, including a range of responses from strong positive reinforcement to faint praise to a negative "No!", pause — to separate trials from one another (intertrial interval). | clearly organized, structured, modified environments and activities; emphasis on visual learning modalities; uses functional contexts for teaching concepts; curriculum is individualized based on individual assessment; uses structure and predictability to promote spontaneous communication. | recognizes that young children with autism are not strongly influenced by social rewards; training begins with functional acts that bring child into contact with rewards; begins with physically assisted exchanges and proceeds through a hierarchy of eight phases; requires initial ratio of 2:1. |
| Reported Outcomes | first replications of initial research reporting gains in IQ, language comprehension and expression, adaptive and social skills. | gains in function and development; improved adaptation and increase in functional skills; learned skills generalized to other environments; North Carolina reports lowest parental stress rates and rate of requests for out-of-home placement, and highest successful employment rates. | Pyramid Educational Consultants report incoming empirical data supporting: increased communicative competency among users (children understanding the <i>function</i> of communication); increasing reports of emerging spontaneous <i>speech</i> . |
| Advantages of Approach | recognizes need for 1:1 instruction; utilizes repetitions of learned responses until firmly imbedded; tends to keep child engaged for increasing periods of time; effective at eliciting verbal production in select children; is a "jump start" for many children, with best outcomes for those in mild-to-moderate range. | dynamic model that takes advantage of and incorporates research from multiple fields; model does not remain static; anticipates and supports inclusive strategies; compatible with PECS, Floor Time, OT, PT, selected therapies; addresses sub-types of autism, using individualized assessment and approach; identifies emerging skills, with highest probability of success; modifiable to reduce stress on child and/or family. | helps to get language started; addresses both the communicative and social deficits of autism; well-suited for pre-verbal and non-verbal children AND children with a higher Performance IQ than Verbal IQ; semantics of PECS more like spoken language than signing. |
| Concerns with Approach | heavily promoted as THE approach for autism in absence of any comparative research to support claim; no differentiation for subtypes when creating curriculum; emphasizes compliance training, prompt dependence; heavy focus on behavioral approach may ignore underlying neurological aspects of autism, including issues of executive function and attention switching; may overstress child and/or family; costs reported as high as \$50,000 per child per year; prohibits equal access. | belief that TEACCH "gives in" to autism rather than fighting it; seen by some as an exclusionary approach that segregates children with autism; does not place enough emphasis on communication and social development; independent work centers may isolate when there is a need to be with other children to develop social skills. | may suppress spoken language (evidence is to the contrary). |
| Errors to Avoid | creating dependency on 1:1; overstressing child or family; interpreting all behaviors as willful rather than neurological manifestations of syndrome; ignoring sensory issues or processing difficulties; failing to recognize when it is time to move to another approach. | failing to offer sufficient training, consultancy, and follow-up training to teachers for program to be properly implemented; treating TEACCH as a single classroom approach rather than a comprehensive continuum of supports and strategies; expecting minimally trained teacher to inform and train all other personnel in TEACCH approach; failing work collaboratively with parents. | failing to strictly adhere to the teaching principals in Phase I; tendency to rush through Phase I or to use only one trainer; providing inadequate support or follow-up for teacher after attending two-day training; training only one person in approach rather than all classroom personnel; inconsistently implementing in classroom. |

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| | Greenspan | Inclusion | Social Stories |
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| Background | also known as "Floor Time," DIR (Developmental Individual-Difference, Relationship-Based) Model; targets emotional development following developmental model; depends on informed and acute observations of child to determine current level of functioning; has child-centered focus; builds from the child; "Floor Time" is only one piece of a three-part model that also includes spontaneity along with semi-structured play, and motor and sensory play. | initially intended for children with mental retardation and disabilities other than autism; sociological, educational, and political mandates in contrast to psychology as root source for other approaches; inclusion defined in three federal laws — PL 94-142, REI, and IDEA | also known as Social Scripts; developed by Carol Gray in 1991 initially to help student with autism understand rules of a game; was further developed to address understanding subtle social rules of "neurotypical" culture; addresses "Theory of Mind" deficits (the ability to take the perspective of another person). |
| Goals | targets personal interactions to facilitate mastery of developmental skills; helps professionals see child as functionally integrated and connected; does not treat in separate pieces for speech development, motor development, etc. | educate children with disabilities with NT children to the maximum extent possible; educate children with disabilities in the chronological setting they would be in if they had no disability and they lived at home; does not apply separate educational channels except under specific circumstances. | clarify social expectations for students with ASD; address issues from the student's perspective; redefine social misinterpretations; provide a guide for conduct or self-management in specific social situations. |
| How Implemented | teaches in interactive contexts; addresses developmental delays in <i>sensory modulation, motor planning and sequencing, and perceptual processing</i> ; usually done in 20-minute segments followed by 20-minute breaks, each segment addressing one each of above-identified delays. | children with autism typically placed in inclusive settings with 1:1 aide; curriculum modified to accommodate to specific learning strengths and deficits; requires team approach to planning; approach may be selective inclusion (by subject matter or class), partial inclusion (1/2 day included, 1/2 day separate instruction), or full, radical inclusion with no exceptions. | stories or scripts are specific to the person, addressing situations which are problematic for that individual; Social Stories typically comprised of three types of sentences: perspective, descriptive, and directive; types of sentences follow a ratio for frequency of inclusion in the Social Story; Social Story can be read TO or BY the person with autism; introduced far enough in advance of situation to allow multiple readings, but especially <i>just before</i> the situation is to occur. |
| Reported Outcomes | teaches parents how to engage child in happier, more relaxed ways; hypothetically lays stronger framework for future neurological/cognitive development. | <i>in certain circumstances</i> , some children with autism can survive and even become more social in classrooms with NT peers; benefits children who cognitively match classmates. | stabilization of behavior specific to the situation being addressed; reduction in frustration and anxiety of students; improved behavior when approach is <i>consistently</i> implemented. |
| Advantages of Approach | addresses emotional development in contrast to other approaches, which tend to focus on cognitive development; avoids drilling in deficit areas, which feeds child's frustrations and highlights inadequacies; is a non-threatening approach; helps to turn child's actions into interactions. | more opportunities for role modeling and social interaction; greater exposure to verbal communication; opportunities for peers to gain greater understanding of and tolerance for differences; greater opportunities for friendships with typically developing peers. | developed specifically to address autistic social deficits; tailored to individual and specific needs; is time and cost efficient/flexible. |
| Concerns with Approach | does not focus on specific areas for competency; no research to support efficacy for children with autism; approach based on hypotheses, not research; is a more passive approach. | <i>automatic</i> inclusion violates spirit and letter of IDEA; opportunities for successful inclusion begin to plateau by end of third grade as work becomes more abstract and faster paced; increasing use of language-based instruction puts students with autism at great disadvantage; sensory and processing difficulties tend to be insufficiently accommodated; regular education setting not necessarily best learning environment for students with autism; teachers and students in inclusion classrooms are typically ill prepared to receive student. | supportive data is anecdotal rather than empirical; benefit depends on skill of writer and writer's understanding of autism, as well as writer's ability to take an autistic perspective. |
| Errors to Avoid | attempting to implement approach without training or professional oversight; taking the lead, trying to get the child to do what YOU think he should do; allowing inadequate time; attempting to implement in midst of ongoing activities for other children. | providing insufficient training, preparation, information, and support to personnel; placing student in settings where level of auditory and visual stimulation is typically too intense; assigning student work in which cognitive demands exceed student's ability to comprehend; depending on support of 1:1 aide; maintaining placement in face of frequent or severe disruptive behaviors; focusing on academics to detriment or exclusion of functional competencies; not offering multiple opportunities to apply functional skills. | including too many directive sentences in proportion to perspective and descriptive sentences; stating directive sentences in inflexible terms (e.g., "I will do ___" rather than "I will try to ___"); writing above the person's cognitive developmental age; using complex language; not being specific enough in describing either the situation or the desired behavioral response. |