**Making Sense of Intervention Approaches for Autism Spectrum Disorders**

Parents or caregivers of children diagnosed with an autism spectrum disorder (ASD), often face the challenge of dealing simultaneously with affects of the diagnosis on the family system as well as adhering to advice to start intervention immediately. With the overwhelming growth of information on traditional and non-traditional therapies for autism spectrum disorders (ASDs), a review of an article written by Prizant & Rubin (1999) seems advantageous. The authors warn against believing any claims of superiority of one approach over another given the current state of research. They also offer their own tenets of best practice as derived from a thorough review of the literature.

The current state of research makes it impossible to claim that any one intervention approach for children with ASD is more effective than another approach. In general, treatment approaches fall along a continuum from traditional behavioral approaches such as Applied Behavior Analysis (ABA), to contemporary ABA (e.g. Pivotal Response Training), and, finally, to developmental/social-pragmatic approaches (e.g  DIR-Floortime) at the other end of the continuum. The authors specify several reasons why the research does not support the effectiveness of one approach over another. First, approaches that *vary widely* in regards to underlying principles and implementation (i.e. there place along the continuum) have been shown to be effective. Next, no studies exist that directly compare two or more approaches with randomly assigned, matched control groups. In addition, in the outcome studies that have been completed, no one approach has been *equally* effective for *all* children. Methodological weaknesses have been identified in several studies from shortcomings in the areas of design, to measurement, and to interpretation of results. In addition, family variables have not been accounted for in studies although such variables have been deemed critical in general early intervention research (i.e. socioeconomic status, number of caregivers, etc.). These are only some of the reasons why the research does not support one intervention approach as superior over others.

In regards to the actual practice of therapy, fidelity of treatment has not always been measured. In other words, despite a claim that an institution or a therapist follows a traditional Applied Behavior Analysis (ABA), a specific contemporary ABA approach, or a specific developmental approach, a therapist may pull from a variety of methodologies when actually practicing and responding to a child in varying contexts. If there are no strict procedures defined or if a therapist strays at all from a stated procedure, then one cannot attribute positive or negative changes to the intervention under study. The authors included an anecdote in which they went to observe a Lovaas-based Applied Behavioral Analysis (ABA) therapy session and found the session to follow more closely a Developmental, Individual-Difference, Relationship-Based Approach (DIR). Moreover, studies have not been able to account for other variables possibly contributing to

changes in the child aside from the studied intervention. For example, the child may be enrolled in several therapies (e.g. ABA, social skills group, sensory integration therapy), participate in other extra-curricular activities, or play to varying degrees with peers, siblings, and parents who all have different interaction styles with the child. One cannot control for all of these factors (and ethically cannot forcibly control for these factors); consequently, effectiveness studies directly comparing treatment approaches remain a challenge.

With no clear answer supported by the research, what should parents think about as they explore options for intervention? As a result of their research, Prizant & Rubin (1999) developed tenets of best practice to help evaluate various approaches. First, they believe an approach should be based on the child's current level of development and the child's learning profile in terms of their strengths (e.g. visual) and weaknesses (e.g. speech production). Some children may need more support than others in regards to handling visual, auditory, tactile, or visual information. For example, some children may benefit from augmentative or alternative communication systems using visual supports if motor speech is severely affected. Treatment approaches that adhere strictly to a sequence of goals or a single modality of teaching may not optimally use a child's strengths to address their weaknesses. Following the previous example, speech may not be a viable, early goal for some children with severe motor speech deficits, but their visual strengths may make picture communication extremely effective and encourage a child to learn language structures and engage with others rather than withdrawal following successive failures at oral communication.

Next, the authors submit that current knowledge of child development be the context for therapy approaches. They highlight findings such as the role of a young child as an *active learner* whose development stems from a wish to engage others and explore the environment rather than a passive learner who simply learns to respond to consequential events. Research also underscores the *role of caregivers* in typical child development: they attach meaning to early non-verbal behaviors, they alter their own interaction style to adjust to the child's developmental level, and they support the advancement of a child's interactions by providing language models and supports for social exchanges, emotional expression, and emotional regulation. In addition, the authors point out that what have been labeled "deviant" behaviors in children with ASD can be more clearly understood through the lens of typical child development. For example, echolalia or tantrums can often be traced to typical communicative functions such as protesting a situation, gaining attention and/or contact, or starting or maintaining a social interaction. When a therapy approach considers such behaviors in relationship to typical developmental patterns, a therapist can analyze the behaviors (i.e. what were the antecedents, etc.) to identify the child's desire and seek to replace the unconventional behavior with a more conventional behavior.

The third tenet emphasizes that the approach "directly address the predominant core deficits of ASD" (Prizant & Rubin, 1999):  social-emotional reciprocity, preverbal/verbal communication, and cognitive processing.  For example, when the child's need to learn how to initiate communication and share attention with others is overlooked, then more advanced linguistic and social conventions cannot be acquired (e.g. if a child cannot share attention with somebody, how will the child learn to understand and react to facial expressions and body language—critical skills in forming and maintaining relationships).  Spontaneous communication, symbolic play, imitation, and social interaction are all deemed important components of an intervention approach and need to be encouraged in a variety of contexts if core deficits are to be addressed.

A chosen therapy must also use a method of teaching that supports long-term goals. For example, if the goal is to have the child gain greater independence and initiate communication spontaneously, then an approach that places the child in a role of a passive responder to a given stimulus in a specific context is inconsistent with the long term goal of therapy. Such an approach may result in a response by the child, but that response may only occur when a specific prompt is given in a specific context and may not be easily generalized to other contexts or used functionally (e.g. a child can say "ball" when he is seated at the table and hears "Say ball.", but the child does not say ball as a means of request when he sees a desired ball placed out of reach in his bedroom).

The last tenant is that an approach should be based on many sources—including but not limited to empirical research.  The authors support the consideration of the following in any intervention approach:  theory, clinical/educational practice, best practice knowledge, social values, and empirical data. The authors offer the use of visual supports for children with ASD as case in point for not relying solely on empirical research. Knowledge of visual processing strengths motivated the use of picture supports in the late 1970s, which became widely used and validated through educational practice in the 1980s, but were not included in professional literature until the late 1980s and early 1990s.  One must be sensitive to the fact that while research always informs clinical practice, many times discoveries in clinical and education practice inform later research. The flow of information and practical adjustments take time, and time is invaluable to a young child with a social communication disorder.  A therapy approach, then, should have a foundation in multiple sources of information.


This article review serves to remind parents, caregivers, and professionals that there are many approaches for helping young children with ASDs, but no one approach can claim effectiveness over another. To help parents evaluate various approaches to therapy, the authors proposed their own tenets of best practice based on a review of the literature in the areas of early intervention, autism spectrum disorders, child development, and other medical and educational fields.

With these tenets in mind, a family may be able to more confidently select an overall approach that best suits their family values and the needs of the child.

Please see the following article for more information:
Prizant, B. M.& Rubin, E. (1999). Contemporary issues in interventions for autism spectrum disorders:  A commentary. <u>Journal of the Association for Persons with Severe Handicaps, 24,</u> 199-208.

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