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As a Speech-Language Pathologist (SLP), my first reaction to the idea of applied behavior analysis (ABA) as a methodology with which to teach language to children with autism was discomfort. My impression was that ABA was rigidly used to teach isolated skills that are difficult to generalize, and therefore did not become functional. This went directly against the grain of the training that I had received in the 1970s. At that time, open classrooms and whole language instruction were in vogue. Phonics was considered obsolete. Some educators dispersed rigid rows of desks into more relaxed clusters, and some schools did away with the walls. The objective of this informal approach to education was to encourage self-expression and creativity in both students and teachers.

Kammie Green: misinformation can lead to false accusations

Kammie Green: no longer produced or used; out of date.

Kammie Green: what could have led to worsening behavior

In 1979, I began work at Maine Medical Center (MMC). In contrast to the more relaxed expectations of public schools, the outcome-based medical community at this teaching institution emphasized evaluating symptoms and determining diagnoses. Data-based substantiation of patients' progress and of the efficacy of specific treatment strategies was required.

In 1989, I left MMC to enter private practice. I had a particular interest in helping individuals who had little or no speech, and who would benefit from the use of Alternative and Augmentative Communication devices (AAC). In my private practice, I continued the work I had begun at MMC to develop better services for individuals in need of AAC. Referrals started coming to my practice for children with a variety of disabilities, including autism.

Kammie Green: speech alternative

Teaching any non-verbal child to use AAC presents unique challenges. To begin with, AAC requires the use of symbols to convey messages. The child has to learn to translate communicative concepts into symbols, expressively and receptively. In the beginning, this is typically taught using adult modeling of symbol use, dialogue boards, and sentence strips to "talk about" activities or items that are enjoyable for the child. Once the child has mastered the concept of symbolic language, he is introduced to the technology. This presents its own complexities.

Kammie Green: additional teaching as they have to correlate the symbol to the communication

While I had had success teaching non-verbal children who did not have autism to use AAC, teaching children with autism was much more difficult. Many of the communicative strategies on which I depended for most children were not effective for children with autism. These children did not initiate communication in the conventional ways. They were unresponsive to facial expressions or other social cues. Many children with autism have few, if any, play skills, so it was difficult to engage them. Frequently, children had little interest in playing with peers. These children with autism seemed to require far more repetition to master skills than children who did not have autism.

Kammie Green: under autism's presence

Regardless of the diagnoses that children presented with in my practice, by far one of the most frustrating aspects of treatment was lack of consistent follow-through in the schools, institutions, or home settings. In the case of children with autism, it was most critical that the follow-through was provided by the caregivers on a day-to-day basis. This was as important as the speech therapy that was provided for an hour twice a week. Communication strategies needed to be systematically woven into every aspect of the learner's life. This would provide the functional reason to communicate, which seems to enhance communication development for all children, regardless of disability.

My first exposure to comprehensive ABA intervention came in 1995 with a referral to a child in a center-based ABA program. Based upon rumors and innuendo, I expected the program to be sterile. Behavior analysts teach children to be robots, I was told, and use punishment. They do nothing but discrete trials at the desk. Children are in such intensive programs that they don't have time to be children.

After observing children at the center, I realized that these impressions were grossly misplaced. I saw that applied behavior analysis offers much to help me teach children to communicate. The staff at the center was running carefully detailed programs targeting specific communication skills one or more times each day. Despite different staff running the programs, the specificity of the steps comprising programs ensured they would be run the same way every time. Because the intervention was intensive, the learner was presented with many learning opportunities throughout the day.

And then there were the data! Staff maintained notebooks for each child, which contained programs designed to meet the learner's unique goals and objectives, and the data substantiating the child's progress. By reviewing these data, I could see exactly what level of performance could expect from the child when I worked with him.

I also learned that the techniques used in applied behavior analysis would complement as well as supplement the strategies that I had learned to be effective in teaching communication to children. Many of the techniques used during discrete trial instruction could also be used during "teachable moments" and incidental learning opportunities. Modeling, prompting, playing, and reinforcing were tools used consistently in both ABA and speech therapy.

As time went on, I realized there can be an almost symbiotic relationship between speech therapy and applied behavior analysis. The gains children made with discrete trial instruction prepared them to learn in more naturalistic environments during speech therapy.

From a clinical perspective, I now define goals in much more objective and measurable terms, and devise systematic hierarchies of learning based upon the child's unique needs. Reminiscent of my Maine Medical Center days, I substantiate the efficacy of

Kammie Green: different opinion but effective

Kammie Green: not able to produce children or young.

Kammie Green: strict "you have to do this, do that" idea

Kammie Green: correlation

Kammie Green: stats and evidence behind what they do

Kammie Green: benefits of data

Kammie Green: similar approaches between the 2 professions

Kammie Green: mutually beneficial relationship between different people or groups

treatment with solid data. I am now much more inclined to include baseline and inter-observer agreement as I deploy new ways to teach children communication. In the beginning, this seemed to take away some of the spontaneity of my interactions with the children. As time went on, however, I learned to be spontaneous within the defined structure of the child's program and objectives.

Furthermore, the structure inherent to ABA provides a high level of detail about the child's learning style and rate that is useful to everyone on the intervention team. ABA also imposes an intensity and consistency that is so critical to effective speech-language therapy for many children.

Kammie Green: date may provide a benefit to more than you

Another advantage that I discovered about good ABA programs is that the staff is very well trained. Staff consistently implements programs to the letter once they are established. Staff is also very insightful when probing changes and adjustments. Initiatives to credential ABA practitioners will encourage an even higher level of professionalism, further improving outcomes for children with autism.

The requirement to collect data in ABA programs ensures that the programs are run regularly; follow-through of therapeutic recommendations is the expectation, not the exception. The SLP can establish an important partnership with ABA professionals. This partnership becomes even more important when the child is having difficulty acquiring a skill. Collaboration among professionals who know the child's learning style well is key to breaking through obstacles to learning.

Kammie Green: benefits both sides

Another advantage of having ABA staff involved in speech therapy is that these professionals already know how to do their jobs. The SLP can explain the outcome objective, and ABA staff can adjust programs or appropriately begin to fade prompts based upon analyses made possible by the emerging data.

Kammie Green: an example of how the work is done

Quite simply, applied behavior analysis has helped me to move towards becoming a more effective and accountable practitioner. I now study the ABA literature, looking for new ways to teach each and every child. I also use techniques inherent to ABA with individuals presenting with diagnoses other than autism.

But what does speech therapy bring to the discipline of applied behavior analysis? Based upon my experience, it brings such richness. SLPs can help transfer communicative skills learned in discrete trial instruction, and other behavior analytic teaching methodologies, to the real environment. We can show behavior analysts ways to elicit communication in novel settings, perhaps by sabotaging the environment. We can offer ways to teach commenting (e.g., "the bird is blue"), or giving directives (e.g., "look at the boat!"). And we can help identify skills that the child needs in the natural environment, which may need to be broken down and taught in discrete trial or other systematic format.

Kammie Green: work in vise versa ways

At the risk of sounding psychodynamic, I've learned there is opportunity to "let the child lead" in speech therapy, but also to apply the methods of applied behavior analysis to lead the child back to our stated objectives. For example, I tried to get a child to utter specific vowels and phonemes. He preferred to "speak" words using his communication device. We compromised: once the child uttered an approximation, I allowed him to also say a word with that sound in it with his "talk box."

Another thing SLPs can bring the communication plan of a child with autism is perspective on the mode of communication a child can use. Many children with autism have the cognitive ability to understand and form complex communicative concepts. Some cannot articulate these concepts verbally. We do not want to wait for a child to be verbal to teach communication, or we will hold him back developmentally and behaviorally. SLPs can offer a range of codes to augment communication, and identify the best one for the individual child.

Today when I work with teachers, aides, and families outside the ABA practitioner community, I frequently get comments such as, "He can do it if he wants to." Now, my response is "Where's the data?"

When I hear, "He does it most of the time," I simply can ask, "Where's the data?"

After a rocky start, I have become committed to the importance and value of applied behavior analysis. The data will prove it.

Kammie Green: emphasizes systematic study of the psychological forces that underlie human behavior, feelings, and emotions and how they might relate to early experience.

Kammie Green: hand in hand

Kammie Green: data importance