Applied Behavior Analysis as an Intervention for Individuals with Autism: Reflections on 35 Years of Evolution

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It is difficult to find the words that best describe the evolution of autism treatment over the past 35 years. The science of applied behavior analysis (ABA) has changed substantially over the last 35 years. In 1980, autism was considered to be a low incidence disorder that was not as well understood as it is in 2015. In 1980, individuals with autism were routinely diagnosed after the age of six. Specialized programs were few and far between. Effective treatments were in the infant stages of their development. Applied behavior analysis itself was a young science, and the application of it to autism was even younger. Lovaas’ revolutionary study demonstrating the power of ABA in changing the behaviors of individuals with autism was still seven years from publication (Lovaas, 1987). Early intervention was not yet a reality for this population of learners, given the late initial diagnosis. Behavioral intervention was available in some specialized settings, though few people with ASD had access to them. In some ways, behavioral interventions lacked nuance. While behaviors could be changed, they were not yet interpreted, analyzed, and treated with function in mind. Treatment still relied on the use of aversive procedures to a much greater extent than they do in 2015. The assessment of generality, maintenance, and social validity were in their earliest stages.

Looking at the evolution of the field through the lens of time’s passage, it may be helpful to see it as a function of the impact of technology on assessment, treatment, and the evaluation of outcomes. We are broadly defining technology to include the identification of new ways to understand and treat autism spectrum disorder. New technology has influenced intervention dramatically in diagnosis, the assessment and treatment of challenging behaviors, skill acquisition, and data collection.

As mentioned above, diagnosis in 1980 occurred most often at the end of preschool or in the early elementary years. Diagnosis was generally done through informal assessment and parental interview. Many individuals who were not “classically” autistic were not understood to be on the spectrum. Furthermore, intervention was a formidable task when individuals were not diagnosed as toddlers. The majority of learners were non-vocal, lacked learning readiness skills that had failed to develop in the preschool years, and had well-established repertoires of automatically reinforced (self-stimulatory) behaviors.

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Over the last 20 years, there has been a radical change in our ability to detect autism in young children. Diagnostic procedures have evolved to include direct observational methods of assessment, enabling diagnosis to be considerably more definitive. The ADOS (Lord, Lisi, Lambrecht et al., 2000) is the gold standard measure, and it brilliantly includes the assessment of pivotal deficits that are notable at young ages, including joint attention, responsiveness to name, and babbling. Parents also have instantaneous access to information on the web about warning signs, leading more parents to identify those signs in their children.

In addition, the Center for Disease Control has altered the prevalence rates, and it is now clear that this is not a low incidence disorder. As a result of all of these changes, and with the increase in information available on the web, awareness of autism is exceptionally high. The media routinely covers autism stories, and autism interventions are frequently cropping up and being marketed. Furthermore, outreach to the pediatrician community has resulted in routine screenings of autism red flags at most well-baby visits. Many doctors now administer tools such as the M-CHAT (Robins, 2008) at the 18 month visit, screening for autism, including the absence of pointing, joint attention, responsiveness to name, and babbling. Parents also have instantaneous access to information on the web about warning signs, leading more parents to identify those signs in their children.

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managers to visualize, trend, tabulate, report and quantify results from selected interventions and regimens. In turn, this provides direct, quantifiable linkages between therapy adjustments and individual outcomes. The considerable ability to visualize patterns and trends in real time stands in stark contrast to traditional practices comprised of recording paper observations, collecting forms, translating diverse documentation into spreadsheet form by hand, hunting for trends or patterns, and ultimately trying to extract useful conclusions from inconsistent datasets.

The advantages of employing the newest developments in population health management at the point of care include identifying new values-based providing higher quality, cost-effective care. It appears likely that the next wave of progress in caring for complex populations will come from innovative health care organizations working with government agencies and leveraging pioneering technologies—like those provided by Virtual Health—to better manage, understand, coordinate and ultimately care for those individuals. As a result of all of these changes, and with the increase in information available on the web, awareness of autism is exceptionally high. The media routinely covers autism stories, and autism interventions are frequently cropping up and being marketed. Furthermore, outreach to the pediatrician community has resulted in routine screenings of autism red flags at most well-baby visits. Many doctors now administer tools such as the M-CHAT (Robins, 2008) at the 18 month visit, screening for autism, including the absence of pointing, joint attention, responsiveness to name, and babbling. Parents also have instantaneous access to information on the web about warning signs, leading more parents to identify those signs in their children.

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As we look to the future, it is with great anticipation and optimism. Autism is routinely detected at young ages. Increasingly, effective treatment is available to individuals diagnosed with ASD. Nuanced applications of the science of ABA have led to assessment and intervention procedures that are more individualized and more effective. The science continues to evolve more precise methods and more precise data collection strategies to track progress and outcomes. The credentialing of behavior analysts continues to become more rigorous, and the BCBA credential is increasingly recognized not only as useful, but also as essential. The field as a whole continues to add to the literature in crucially important areas including the assessment of generalization, social validity, and quality of life. It is impossible to know just what the field will define the field 35 years from now, but the momentum is high and the future is very bright.

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References


