

## Biosketch

Gina Green received a PhD in Psychology (Analysis of Behavior) from Utah State University in 1986 following undergraduate and master's degree studies at Michigan State University. She has been a faculty member in Behavior Analysis and Therapy at Southern Illinois University; Director of Research at the New England Center for Children in Southborough, Massachusetts; Associate Scientist at the E.K. Shriver Center for Mental Retardation in Waltham, Massachusetts; and Research Associate Professor of Psychiatry and Pediatrics, University of Massachusetts Medical School. Dr. Green is currently the Executive Director of the Association of Professional Behavior Analysts, a consultant in private practice in San Diego, a lecturer in Special Education at San Diego State University, and an Adjunct Professor in the Department of Behavior Analysis, University of North Texas. She has authored numerous publications on the treatment of individuals with developmental disabilities and brain injuries, as well as the experimental analysis of behavior. Dr. Green co-edited the books *Behavioral Intervention for Young Children with Autism* and *Making a Difference: Behavioral Intervention for Autism*. She serves or has served on the editorial boards of several professional journals in developmental disabilities and behavior analysis. Dr. Green also serves on the Autism Advisory Group of the Cambridge Center for Behavioral Studies and the advisory boards of several autism programs and organizations. She is a Board Certified Behavior Analyst, former president of the Association for Behavior Analysis and the California Association for Behavior Analysis, a former member of the Board of Directors of the Behavior Analyst Certification Board, a founding Director of the Association of Professional Behavior Analysts, and a Fellow of the American Psychological Association and the Council for Scientific Medicine and Mental Health. *Psychology Today* named her "Mental Health Professional of the Year" in 2000. In 2005 she received an honorary Doctor of Science degree from The Queen's University of Belfast, Northern Ireland for her work in autism. Dr. Green lectures and consults widely on autism and related disorders, behavioral research, and effective interventions for people with disabilities.

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The Honorable S. Ward Casscells, MD  
Assistant Secretary of Defense for Health Affairs  
1200 Defense Pentagon, Room 3E1082  
Washington, DC 20301-1200  
Via FAX: 703-697-4197

Dear Dr. Casscells:

As a long-time autism researcher and practitioner, I am writing to offer some information in support of your efforts to make effective treatment more widely and easily accessible to military children with autism spectrum disorders (ASD). In addition to having worked in this field for more than three decades, it has been my privilege over the past couple of years to work with some extraordinary military families who are advocating for coverage of effective treatment for ASD by TRICARE. They have taught me a great deal and have won my everlasting admiration, so I am grateful to have this opportunity to help them by providing expert opinion on the efficacy and medical necessity of applied behavior analysis (ABA) treatment for ASD.

As you know, ASDs are neurodevelopmental conditions that affect virtually all aspects of everyday functioning to some degree. Difficulties are typically seen in communication, social interaction, intellectual functioning, play and leisure skills, academics, and self-care skills. Many individuals with ASD also exhibit behavior disorders that interfere with their acquisition of useful skills and put them and others at risk of physical harm. Without effective intervention to help them build the skills required for everyday living and to reduce problem behaviors, many people with ASD suffer needless injuries and illnesses, and require extensive – and expensive – specialized services throughout the lifespan. That takes an enormous toll on their families, on healthcare and human service systems, and on society as a whole. Fortunately, research has shown that much of that toll can be alleviated for people with ASD who receive competently delivered applied behavior analysis (ABA) intervention.

Behavior analysis is a natural science approach to understanding how behavior interacts with environmental variables. In this scientific discipline, “behavior” means anything done by living organisms (not just misbehavior), and “environment” includes all types of physical and social events that might change or be changed by an individual’s behavior. Like many other sciences, behavior

analysis has conceptual, experimental, and applied branches. The basic science focuses on discovering principles (that is, general laws) about how behavior works, or how learning takes place. For example, one principle of behavior analysis is positive reinforcement: When a behavior is followed by a consequence that is valued by the individual, that behavior is likely to be repeated in the future. Applied behavior analysis (ABA) is the use of the principles and methods derived from research to bring about meaningful changes in socially important behaviors. The applied component of the field was originally created by blending the experimental analysis of behavior – the basic science – with research on human development. Through nearly five decades of laboratory and field research, the discipline of behavior analysis has developed many techniques for increasing useful behaviors and reducing those that may be harmful or that interfere with learning. Some of the many areas in which this science has been applied fruitfully include developmental disabilities, education, brain and spinal cord injury rehabilitation, communication disorders, public health, substance abuse, business and industry, safety, child abuse and neglect, parenting, gerontology, and of course, ASD.

Numerous reviews of scientific research have identified ABA as a proven, safe, and effective approach to ASD intervention. Several of those reviews have cited the hundreds of published studies documenting the efficacy of a variety of ABA techniques for increasing a wide array of specific skills and decreasing a wide array of problem behaviors in people with ASD of all ages. In addition to those focused interventions, comprehensive, intensive early intervention programs using combinations of many ABA techniques have been shown to produce large improvements in multiple skill domains in many young children with ASD, more modest but still clinically important improvements in many other children. Those effects have been obtained when ABA intervention was designed and overseen by qualified professional behavior analysts. Among those who have recognized competently delivered ABA as an evidence-based approach to ASD intervention are the U.S. Surgeon General, New York State Department of Health, U.S. Department of Defense, American Academy of Pediatrics, Association for Science in Autism Treatment, and Autism Speaks.

I understand that in the course of deliberations about TRICARE policies, questions have arisen about the medical necessity of ABA intervention for ASD and whether that intervention is special education. I hope the following points of information will help ease concerns you and others may have about those issues.

#### **ABA is medically necessary treatment for ASD**

- Unfortunately, many people with ASD engage in behaviors that jeopardize their safety and health, such as self-injury, pica (ingesting inedible items), elopement (running away), flopping (throwing themselves on the ground), aggression, sleep disorders, and severely restricted eating. Several studies have found that such behaviors lead to disproportionate numbers of emergency room visits, hospitalizations, and prescriptions of psychotropic drugs for people with ASD, with the associated high costs. Extensive

research by behavior analysts has shown that those behaviors are often learned, and are triggered and reinforced by environmental events. Behavior analysis methods have proved effective not only for identifying those environmental events, but also for reducing problem behaviors and developing appropriate alternative behaviors, such as requesting help with a task instead of eloping or aggressing, eating a healthy diet, and sleeping through the night.

- Although some drugs can reduce some of the problem behaviors just mentioned, relatively few psychotropic medications have been tested adequately with children with ASD. Further, as the American Academy of Pediatrics noted recently, no drugs ameliorate the core symptoms of ASD, and many drugs that are prescribed for problem behaviors have negative side effects. For example, the only drug that has been approved by the FDA to date for the treatment of ASD – risperidone -- has been shown to reduce irritable and agitated behavior. But risperidone is not 100% effective, and its negative side effects include incontinence and weight gain, which increases the risk of diabetes and other health problems. ABA methods, on the other hand, can effectively reduce problem behaviors without adverse physical side effects.
- The behavioral excesses and deficits exhibited by people with ASD often hamper the delivery of health care services to this population. Communication difficulties and fearful responses to unfamiliar situations, for example, can make routine medical and dental checkups major ordeals for people with ASD and their families. Studies have shown that with ABA intervention, people with ASD can learn to communicate and cooperate with health care professionals, to comply with medical and dental care routines, and to undergo medical procedures like scans and EEGs.
- In a related vein, a variety of ABA techniques have proved effective for building self-care, hygiene, and personal safety skills in people with ASD, thus enhancing their health and reducing their risk of injury.
- Many people with ASD have difficulty recognizing and responding appropriately to situations that put them at risk of harm. Research has shown that ABA methods are effective for teaching people with ASD to be aware of and to avoid potentially hazardous situations, to seek help when necessary, and to communicate essential information to individuals who can assist them.
- In sum, ABA intervention for ASD is similar to certain treatments that are commonly provided to children and adults with other neurological disorders to develop or restore independent functioning. Those treatments are covered under many health insurance plans. With competently delivered ABA intervention, many people with ASD can enjoy safe and healthy lives. The earlier a child with ASD receives effective intervention, the more likely she is

to achieve large improvements in multiple skill areas, and the less likely it is that health-threatening problem behaviors will develop. Adolescents and adults with ASD can also benefit from ABA intervention. TRICARE insurance coverage to make this medically necessary treatment available to military children with ASD and their families will not only enhance the lives of those individuals, it will also reduce their need for health care services and the associated costs.

### **ABA is not special education**

- Although ABA intervention methods are effective for building academic and other skills, and certainly could be used by properly trained teachers and other school personnel serving students with ASD, applied behavior analysis is increasingly recognized as a unique and distinct professional practice. In fact, in its 2007 report on autism, the U.S. Department of Defense described applied behavior analysis as an “emerging profession.” There is an accredited international certification program for practitioners, managed by the Behavior Analyst Certification Board (see [www.BACB.com](http://www.BACB.com)). Some Board Certified Behavior Analysts and Board Certified Assistant Behavior Analysts work in special education, but the BACB certification is not an education credential per se. University training in behavior analysis is provided in a wide range of academic departments (e.g., behavior analysis, psychology, human development, public health, criminal justice, education, special education). Unfortunately, however, most special education teacher certification programs provide little, if any, training in ABA; very few provide all of the didactic training and supervised practical experience that the discipline deems necessary to practice ABA at even a rudimentary level.
- ASDs affect multiple areas of functioning, not just the skill domains that are typically addressed by the education system. Further, schools typically serve students with ASD for just a few hours each weekday for 9 months of the year. As noted previously, many people with ASD have difficulties with eating, sleeping, self-care, and personal safety. Those difficulties are most salient – and are best addressed – in home and community settings. Indeed, the need for intervention to build crucial skills of all kinds and to reduce problem behaviors does not stop with the end of the school day, the school week, or the school year. Abundant research shows that in order to generalize learned skills, people with ASD need carefully planned, consistently delivered behavior analytic intervention throughout each day, 7 days a week, year around, in multiple environments. Behavior analysts have developed specific techniques for promoting skill generalization. Importantly, those techniques include training family members to prompt and reinforce functional skills and to manage problem behaviors in a variety of everyday settings. The education system unfortunately lacks the resources to provide that kind of intervention. Therefore, if the responsibility for treating ASD is placed entirely on the schools, most people with ASD will not receive effective treatment so will

require substantial and expensive health care and other services throughout their lives.

- To expand upon a previous point, ABA intervention for ASD parallels the intensive speech, occupational, and physical therapies that are provided to children and youths with other neurological disorders to build or rebuild communication, cognitive, self-care, academic, and other skills. Those therapies are often delivered in schools, yet they are not narrowly construed as "special education." On the contrary, they are deemed medically necessary, and are covered by most health insurance plans. ABA intervention should be granted the same status.

With effective treatment, military children and youths with ASD can lead happier and healthier lives than they would otherwise. ABA is an effective and safe treatment for ASD when it is designed and overseen by qualified professional behavior analysts. If this medically necessary treatment is delayed or is provided at suboptimal levels, the health and wellbeing of the child with ASD and his family will be affected negatively in both the short and the long run. Failure to cover ABA treatment under the basic TRICARE program will not only add to the already heavy burden carried by military families of children with ASD, it will also add to the costs of health care and other services for those military dependents for years to come. I urge you to head off those tragedies by correcting the Code of Federal Regulations and TRICARE policies to include coverage of ABA treatment for ASD.

Very respectfully,

Gina Green, PhD, BCBA

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