Table of Contents

Interview with BACA President, Carl Sundberg, PhD, BCBA-D by Josh Pritchard, PhD, BCBA-D

What got you into the field of autism treatment, and specifically behavior analysis?

When I was in high school in the mid 1970's, my brother Mark Sundberg loaned me one of his textbooks to read. It was *Elementary Principles of Behavior* by Whaley and Malott. I read that text and was hooked. The next several years Mark turned me on to Skinner's analysis of verbal behavior; I was convinced I wanted to go to Western Michigan University (WMU) and study under all of those big name behavior analysts, especially Jack Michael.
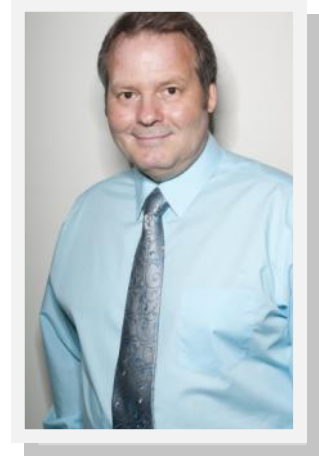
As a graduate student at WMU in the 1980's, I became interested in all of the research that was conducted at the WMU practicum site during the 70's. Jack Michael, my brother Mark Sundberg and a large group of students were using Skinner's analysis of verbal behavior and creating a model for language assessment and treatment for those who were developmentally disabled and language delayed. I found that fascinating and hung around WMU as long as I could so that I could learn as much as I could from Jack Michael and the other professors at WMU.

I did not really plan on making a career in the autism field. Autism was not the big buzzword back then. I wanted to be a researcher and college professor. It wasn't until the mid 1990's when the work of Lovaas was becoming widely known and the autism rates started rising, that I began to start taking clinical cases. I started out consulting for parents who were running home ABA programs.

How did BACA begin, and what's your vision for it in the future?
For several years I traveled around the country consulting for parents and school districts. I always felt that there was something missing with this model. I always felt bad about leaving a case and saying "I will see you in a month."

Science in Autism Treatment (SIAT) Team

Co-Editors
David Celiberti, PhD, BCBA-D
Joshua K. Pritchard, PhD, BCBA-D

Focus On Science
Daniel W. Mruzek, PhD, BCBA-D

International Updates
Daniela Fazzio, PhD, BCBA-D

Editing Coordinator
Leanne Tull, MADS, BCBA

Research Synopses
Sharon Reeve, PhD, BCBA-D

Clinical Corner
Nicole Pearson, PsyD, BCBA-D

Consumer Corner
Kate Fiske, PhD, BCBA-D

Media Watch Updates
Barbara Jamison, BA

Treatment Summaries
Tristram Smith, PhD

Subscriptions
Kerry Ann Conde, MS, BCBA

From The Archives
Sara Jane Gershfeld, MA, BCBA

Advertising
Shari Schatzman, MSEd, SDA

Interview with Carl Sundberg continued...

Much more work was needed. I felt that services and supervision needed to be more intense.

In 2002, an Indianapolis businessman who had a daughter with autism contacted me. He was starting up a center for autism based on the principles and procedures of ABA. He had asked me if I would be the Senior Behavior Analyst for this center. I took that job and moved to Indianapolis. For the next 7 years I worked for various centers in Indianapolis while I continued to consult for families and school districts.

By 2009 I knew it was time for me to open my own center so I could have complete control over the operations. My wife, Devon, and I opened the Behavior Analysis Center for Autism.

Our vision was and continues to be to provide high quality, intensive ABA with an emphasis on Skinner's analysis of verbal behavior to kids of all ages who have autism. I wanted to try to replicate (the best I could) the atmosphere that I was part of at Western Michigan University. That is, I wanted to create a top notch community of behavior analysts.

Over the past two years, I started contacting some of the top specialists in our field to help build our team. If we were going to serve students of all ages and ranges of severity, we needed some specialists. At this time, our team of consultants consist of: Pat McGreevy, Barb Esch, John Esch, Mark Sundberg, Peter Gerhardt, Bob Ryan, and Kent Johnson. We have also started a research department that is headed up by Genae Hall. Genae was one of the original verbal behavior researchers at WMU in the 1970's.

How did you find out about ASAT, and what made you want to support ASAT?

I first came across ASAT while reading the book *Sense and Nonsense in the Behavioral Treatment of Autism: It Has to Be Said* (Leaf, McEachin, & Taubman, 2008). I was very excited to find this resource and started directing everyone I came in contact with to the ASAT website. Information on the website is critical, and needs to be said. However, as a provider I may come across as biased when relaying this information to my clients. If you are looking to buy a car and the dealer tells you to avoid the dealership across the street, it is a lemon factory; you would take that with a grain of salt. For years I have been looking for some well-organized, easy to access information that can be disseminated to the consumer. It is unfortunate that in many cases someone like Jenny McCarthy can influence parents of children with autism more so than behavioral scientists.

Has ASAT been helpful to you and BACA in your treatment of autism?

Yes, it has. The newsletters, links, and articles are great resources. Every time I am confronted with a medical strategy, I go to the ASAT website to research. I also refer to the website every time I am told that I am misinformed and out of touch with current effective autism treatments (which I am often told). It feels good to always find good solid data to back me up (or should I say data regarding lack of data?).

Why do you think pseudoscientific treatment flourishes in autism?

Pseudoscientific treatment can be appealing to parents. Since there is little or no solid data to back many treatments, there seems to be no restriction to the claims. Parents are desperate, and if someone says a treatment that is easy to do works, why not try it? If it is costly and somewhat time consuming then it is easier to convince yourself that it was effective. This is especially the case if it is combined with a truly effective treatment. There seems to be a tendency to think that the more options one has the better the outcome will be. A little of this, a little of that has to be better, right? Testimonials are powerful and appealing; they appear to be so positive. "Take this pill and all will be better"; "Let me tell you what it did for my child." Science is confusing, hard to follow, and by comparison, perhaps less optimistic.

Have you had any consumers that were also undertaking treatment for autism that had no or weak scientific basis? What (if anything) did you do?

I would venture to guess that at least one half of the hundreds of children I have worked with have also been receiving alternative treatments where there was not solid evidence to back the effectiveness of the treatment. Typically, I do not take an extreme stance. I fear that the consumer will do what he or she wants and may decide to discontinue behavioral services. People know where I stand and it is almost like an "agree to disagree" model. I will always discourage starting treatments that do not have solid evidence. The extent of my efforts depends upon the nature of treatment. For example, I say little about the GFC diet anymore because it is simply too prevalent. It is also harder to argue because there are certainly cases where someone is allergic to wheat and dairy products. I just simply can't believe that all children with autism have a problem processing wheat and dairy and therefore need to be on this diet. That logic, however, seems to be the thought process by many. I will take a stronger stance against a treatment such as chelation and sensory integration,

Interview with Carl Sundberg continued...

and a stronger one yet for an obvious bogus treatment such as Facilitated Communication (albeit, there are some real cases where a person does have the cognitive ability but lacks the muscle control).

What suggestions do you offer parents on finding a high quality treatment provider?

I have always suggested to parents that much research is needed to choose not only the treatment (e.g., ABA), but the specific provider as well. Not all are created equal. In order to do this, one needs to research ABA somewhat. A good start is to look at the guidelines provided by the BACB. It is important to look at the credentials and experience of the provider. There should be someone on staff who spends time with your child who has the analytical skills to develop and oversee the program for your child. This person should have an advanced degree in behavior analysis from an accredited university, in addition to many years of experience. Ask questions regarding staff training, supervision hours and ratio of supervisors to line staff. Make sure they correspond to the BACB guidelines. It is also important to check references. Sometimes providers can look good on paper. It is easy these days to create an appealing web site. You should spend more time researching your provider than you do researching a new car or a house to purchase.

Thank you for a great interview and for your support of ASAT!

ASAT Coordinators, Externs, and Committee Members

In addition to our Advisory Board a number of Coordinators, Externs, and other Volunteers lend their time and talents to support ASAT's mission and initiatives. As you can see, we have individuals who support each aspect of our organization. If you want to assist, please email us at info@asatonline.org

Advertising Coordinator
Shari Schatzman, MEd, SDA

Bio-medical Advances Coordinator
Leanne Tull, MADS, BCBA

Donor Drive Coordinator
Denise Grosberg, PhD, BCBA

Editing Coordinator
Leanne Tull, MADS, BCBA

Externship/Volunteer Coordinator
Lauren Schnell, MEd., BCBA

Grant Research Coordinator
Alice Walkup, MS, BCBA

International Dissemination Co-Coordinators
Audrey Meissner, MEd, BCBA
Jennifer Hieminga, MEd, BCBA

Social Media Coordinator
Renita Paranjape, MEd, BCBA

Sponsorship Coordinator
Caitlin Reilly, MA

Subscriptions Coordinator
Kerry Ann Conde, MS, BCBA

Externs

Rachel Binder, MS
Laurie Brophy, LCSW, BCBA
Elizabeth Callahan, BA, BCaBA
Cathy Curcio, MSW
Jacqueline Hamor
Eleanor Kleinhans
Denielle Nicastro
Caitlin Reilly, MA
Valerie E. Rossi, MPA
Lauren Schnell, MEd, BCBA
Mark Sullivan, BA
Leanne Tull, MADS, BCBA
Alice Walkup MS, BCBA

ASAT Public Relations

Courtney Aponte, MA
Nicole Mammina, MSEd
Lewis Mazzone, MA
Nancy Philips, BA
Sage Rose, PhD
Alyssa Rosenberg, BA

ASAT's Newsletter,
Science in Autism Treatment

Laurie Brophy, LCSW BCBA
Justin DiScalfani, PhD
Kate Fiske, PhD, BCBA-D
Elizabeth Neumann, MA, BCaBA
Nicole Pearson, PsyD BCBA-D
Sage Rose, PhD
Caroline Simard-Nicolas, MS, BCBA

ASAT's Website

Kerry Ann Conde, MS, BCBA
Caroline Simard-Nicolas, MS, BCBA
Amanda Wadsworth, MSEd, BCBA

Media Watch

Toli Anastassiou, MA, BCBA
Emily H. Callahan, PhD, BCBA-D
Geoffrey Debery, MA, BCBA
Justin DiScalfani, PhD
Hannah Hoch, PhD, BCBA–D
Mary Philips, BA
Sharon Reeve, PhD, BCBA-D
Anya K. Silver, MA, BCBA
Shannon Wilkinson, MADS, BCaBA

Thank You!

Science Corner: Determining the Effectiveness of Treatments Available to Persons with Autism Part One
by Tristram Smith, Ph.D. and Daniel W. Mruzek, Ph.D.

The goal of helping persons with autism and their families access the "state of the science" in autism treatment is at the heart of the Association for Science and Autism Treatment's (ASAT) mission. To this end, each of our Treatment Summaries includes a brief assessment regarding its scientific validation (see http://www.asatonline.org/treatment/treatments_desc).

A reasonable question is, "how does ASAT determine if a particular autism treatment has scientific validation?" We cannot simply "tally" the total number of published studies supporting and refuting a particular treatment, because there exists a tremendous range in scientific rigor across published studies. For example, some studies demonstrate tight experimental control, and, thus, afford greater confidence in the results. Other studies have significant methodological weaknesses, rendering their findings tentative, suspect, or altogether worthy of dismissal. Also complicating matters, treatment studies that find "no benefit" are less likely to be published (i.e., the "back of the file cabinet effect"); therefore, we are left with "skewed" samples of published treatment research to review. Even well-designed studies often yield results that other investigators cannot replicate. For that reason, our efforts at assessing the scientific validity of autism treatments must hinge on consideration of not only the *number* of studies and their outcomes but also the *quality* of that research.

ASAT's evaluation of research entails a two-step process: (1) the identification and analysis of each study on a particular intervention, and (2) integrating this information into an overall appraisal and recommendation. Both steps are based on a set of nine criteria developed by Chambless and Hollon (1998), and adopted by the Clinical Psychology Division of the American Psychological Association for the evaluation of research on psychological intervention (see Table 1). Though this set of criteria is not the only one that could be used, it does appear well suited to the purpose of evaluating the "state of the science" for various autism treatments.

In Table 1, the first five criteria correspond to step 1 of our evaluation process (i.e., review of each study of an intervention), and the final four criteria correspond to step 2 (developing an overall appraisal and recommendation). Below, we illustrate application of these criteria for step 1, using the Learning Experiences and Alternative Program for Preschoolers and Their Parents (LEAP) model of early intensive intervention as an example. In the next issue of "Focus on Science" (Spring 2013), we will look more closely at step 2.

The LEAP model was recently the subject of a randomized, controlled study by Strain and Bovey (2011; see the Fall 2012 issue of Science in Autism Treatment, p. 17 for an ASAT Research Review of this study). Using the first five criteria in Table 1, we find the following:

Criterion 1 – Overall Research Design: This was a randomized control trial with 294 children in 56 classrooms, with 28 classrooms randomly assigned to full LEAP participation with follow-along training, and 28 classrooms assigned to a comparison condition (i.e., access to LEAP materials but no follow-along training). The large number of participants and random assignment minimizes risk that a difference between the two groups is the result of chance. A reasonably detailed description of methodology during the two-year study indicates systematic control of potentially confounding variables (e.g., introduction of another "extra" therapy in one of the groups, assurance that the intervention described was actually delivered) and provides opportunity for replication by other researchers.

Criterion 2 – Sample Description: The authors clearly describe their criteria for classroom participation as well as the process of recruiting participation of teaching staff and children. As the authors acknowledge, however, they did not administer measures that require direct observation to confirm that the children qualified for an autism spectrum disorder (ASD) diagnosis. Instead, they relied on diagnosis by outside clinicians and screening questionnaires given through the study. Thus, there is a risk that the authors included some children who did not have ASD.

Criterion 3 – Outcome Assessment: Intervention lasted for two years, and children were assessed at three points: before the start of intervention, after about one year of intervention, and at the conclusion of the second year of intervention. Outcome assessments were standardized and valid measures of autism symptoms, cognition, and adaptive behavior. All measures were administered by appropriately trained investigators. It does not appear that blind raters were employed, introducing potential threat to internal validity (e.g., expectancy bias on the part of the raters).

Criterion 4 – Treatment Implementation: Treatment components and techniques are carefully specified in a detailed manual, allowing other researchers the opportunity to conduct replication studies. Investigators used well-established measures of the fidelity of implementation of the LEAP intervention by teachers in the experimental group, confirming that the treatment was delivered as intended. Teachers were trained and supervised by experts in the LEAP model who were committed to ensuring proficient implementation.

Criterion 5 – Data Analysis: Statistical procedures were appropriate for testing hypotheses. Drop-out rates within and between experimental and control groups were accounted for by researchers in their analyses.

Overall, although not perfect, this study has many

Science Corner continued...

methodological strengths that increase confidence in the validity of the findings. Thus, we believe the positive outcome for LEAP participants relative to controls makes a very important contribution to the literature. Nevertheless, in our ASAT description of LEAP (found at: http://www.asatonline.org/treatment/treatments/leap.htm), we caution that "[a]dditional research…is needed in the LEAP model as a comprehensive treatment program. Important next steps for research are replications by independent investigators and comparisons against established early intensive behavioral treatment models." We will discuss reasons for this caution in the next installment of "Focus on Science." More specifically, we will look at criteria six through nine, and integrate this discussion regarding evaluating the scientific validation of autism interventions into specific ways families and practitioners can use our reviews as a resource in making treatment decisions.

Table 1. Evaluating Autism Treatment Research: Key Items for Consideration*

Criteria	Common Considerations
1. Overall Research Design	• Benefits of intervention not due to chance • Design controls for potentially confounding variables • Design described with enough detail to replicate • Example: randomized clinical trials
2. Sample Description	• Population sampled is specified • Standard procedures used to confirm diagnosis
3. Outcome Assessment	• Tools measure key clinical concerns • Measures have demonstrated reliability and validity • Interviewers blind to group status of participants • Clinical significance is assessed, not just statistical significance
4. Treatment Implementation	• Intervention is manualized for others to further test • Study "therapists" are trained and monitored by experts committed to ensuring competent implementation • Study is overseen by knowledgeable experts committed to ensuring competent implementation
5. Data Analysis	• Procedures for data analysis are planned prior to data collection; "phishing" for significant results through multiple tests does not occur • Consideration is given to different group drop-out rates in the analysis of the results
6. Resolution of Conflicting Results	• Studies with positive results are weighed alongside studies with results suggesting "no benefit" • Meta-analyses (studies that analyze a number of independent studies at one time) are used when warranted
7. Limitation of Efficacy	• When reporting positive results, researchers identify for whom the treatment is beneficial • Possible "moderator variables" (factors that may systematically influence effectiveness) are considered and acknowledged
8. Generalizability	• Consideration is given to the relevancy of the results of a treatment in actual clinical applications • Variables that may affect the "external validity" of results (e.g., therapist training, level of supervision) are acknowledged
9. Treatment Feasibility	• The degree to which a treatment is acceptable to individuals and their families (i.e., preferred over other options) is acknowledged • The ease at which a treatment can be used by practitioners with integrity is considered

*Adapted from Chambless and Hollon (1998)

References

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology*, *66,* 7 – 18.

Strain, P. S., & Bovey, E. H. II. (2011). Randomized controlled trial of the LEAP model of early intervention for young children with autism spectrum disorders. *Topics in Early Childhood Special Education*, *20 (10),* 1 – 22.

Clinical Corner: I am a home program coordinator who works with a six-year old child diagnosed with autism. The parents are concerned because their child struggles at bedtime and will often wake up in the middle of the night to come into their room. The parents want their child to stay asleep and have tried everything to get him to stay in bed all night. What can I suggest they do to treat their child's sleep behavior?

Answered by Lauren Schnell, BCBA, Children's Specialized Hospital

Many children with autism experience sleep difficulties. A lack of a good night's sleep may affect not only the child, but everyone in his or her family. The good news is that behaviorally-based approaches can help. In this issue of Clinical Corner, Lauren Schnell and Leif Albright highlight several evidence-based strategies that parents can implement to improve the sleep behavior of their child with autism.

Nicole Pearson, PsyD, BCBA-D
Clinical Corner Coordinator

Sleep disturbances in children with autism are a common concern for many parents. It has been estimated that approximately 25% of typical children between the ages of one and four struggle with nighttime wakings (Lozoff, Wolf, & Davis, 1985). For children with special needs, the number increases dramatically with upwards of 80% experiencing some type of sleep problems (Lamberg, 1994). Of those who frequently wake at night, the majority end up sleeping in their parent's bed, and the sleep problems often persist over time.

The good news is there is a variety of behavior analytic approaches found to be effective in addressing sleep disturbances in children with autism. An underlying premise of these approaches is that poor sleep patterns are learned, and, as such, can be unlearned.

Prior to implementing a behavioral sleep program, it is important to first rule out any medical reasons for the sleep disturbance, such as physical discomfort related to an illness. Discussions with a pediatrician should help to determine if the sleep issues may be associated with an underlying medical issue and if further testing or evaluation is warranted.

If the sleep issues are thought to be behavioral, the first step is to complete a sleep log to determine the extent of the problem and potential environmental factors that may be adversely affecting the child's sleep. A sleep log outlines the time the individual is put into bed, the actual time he/she falls asleep, frequency of night wakings, and the duration of those awakenings. Additional information may be collected on any other behaviors which are observed during bedtime, such as tantrums during the bedtime routine or disruptive behavior during the night. Baseline data collection should continue until a consistent pattern of sleep (or lack thereof) or challenging behavior is apparent. This information can later be used to assess the effectiveness of the sleep intervention.

Some questions which may be helpful for parents in completing the sleep log are:
- What time does the child go to bed?
- What does the child do leading up to bedtime?
- What else is going on in the home while the child is in bed which could be influencing his/her sleep?
- What activities does the child engage in prior to falling asleep?
- What time does the child awaken during the night as well as in the morning?
- Does the child take naps during the day?

Based upon the results of the baseline data collected in the sleep log, a number of interventions may be considered. Below are several practical strategies which may be helpful to improve the sleep behavior of the child with autism.

Bedtime Routines
A bedtime routine can be helpful for the child, as it creates predictability in the sequence of activities leading up to bedtime. A written or visual schedule may be helpful in ensuring the routine is consistently followed. The schedule should outline activities preceding bedtime; for example, brushing teeth, changing into pajamas, saying goodnight to loved ones, and reading a bedtime story. The routine should begin at least 30-60 minutes prior to bed

Clinical Corner Continued...

time. It is also recommended that parents eliminate all foods and drinks containing caffeine at least six hours prior to bed, and avoid rigorous activities during the later evening hours.

Initially, the child may need a high rate of positive reinforcement for following the routine. Eventually, the parent may consider providing the child with positive reinforcement the following morning if he/she successfully follows the nighttime activity schedule and remains in bed throughout the night. Such reinforcement might include earning access to a favorite breakfast cereal, a toy, or getting a sticker to put on a special chart upon waking (Mindell & Durand, 1993).

Escape Extinction

The manipulation of bedtime routines does not always result in successful treatment of sleep disturbances, necessitating further intervention. The choice of procedure largely depends upon when the sleep disturbances occur. In situations where the child has difficulty falling asleep or wakes multiple times throughout the night, an escape extinction procedure may be used. Escape extinction is a commonly used intervention which involves preventing or removing access to the reinforcement which has previously maintained the behavior. During this procedure, the parent implements the nightly sleep routine culminating in placing the child in bed and leaving the room. Each time the child wakes up and attempts to leave the room, the parent redirects the child back to bed with minimal discussion and interaction. This procedure should be repeated until the child stays in his/her own bed and falls asleep (Rickert & Johnson, 1988; France, Blampied, & Wilkinson, 1991).

When implementing escape extinction protocols, it is essential to ensure the child is kept safe from harm. For example, if the child engages in severe problem behavior such as self-injury, or disruptions such as climbing on furniture, a modified extinction program may be implemented. This involves the parent staying in the room to monitor the child's safety with minimal interaction. In addition, the parent may consider using a video monitoring system so the child can be monitored from a different room to ensure his or her safety.

Graduated Escape Extinction

When an escape extinction procedure cannot be used, the parent may implement a graduated extinction intervention. This treatment procedure should be used when the child has difficulty falling asleep, wakes frequently during the night, and engages in nighttime tantrum behavior. Similar to the escape extinction procedure, a graduated procedure begins by putting the child to bed and leaving the room (Durand, 1998). When crying or tantrum behavior occurs, the parent will wait a designated amount of time before going back into the child's bedroom. The latency of this response will systematically increase until the child falls back to sleep before the parent enters (Durand & Mindell, 1990).

Bedtime Fading with Response Cost

Another option is a faded bedtime with response cost (Piazza & Fisher, 1991) procedure. This involves first determining the actual time that the child falls asleep once placed in bed (as noted in the sleep log) and adding an additional 30 minutes to the child's subsequent bedtime. For example, if the child is put into bed at 8:00pm and falls asleep at 8:30pm, the assigned bedtime would now be moved to 9:00pm. Once the time is set, it is important that the child be kept awake until 9:00pm to increase the likelihood that he/she will be tired at the appointed bedtime. If the child falls asleep within 15 minutes of being placed in bed, then the bedtime should be faded back by reducing the time by 30 minutes the next night (9:00pm bedtime goes down to 8:30 pm). If the child does not fall asleep within 15 minutes of being placed in bed, then he/she will be brought out of the bed for approximately 15 minutes. During that time, the child will not be encouraged to fall asleep nor should he/she be engaged in any excitable activity. The purpose is to increase the motivation to sleep. At the end of the 15 minute interval, the child will be placed back into bed. This procedure will be repeated until the child falls asleep. The bedtime would then be set for 30 minutes later on the following night (increased from 9:00pm to 9:30pm). This cycle should be repeated until the child falls asleep at the time designated by the parents.

Scheduled Awakenings

If a child has difficulty remaining asleep and wakes throughout the night, a procedure known as scheduled awakenings may be helpful. Using the data from the sleep log, the parent identifies the most typical night waking times and awakens the child approximately 30 minutes prior to that time by gently touching or softly speaking to the child. Once the child is

Clinical Corner Continued...

awake, the parent would allow him/her to fall back asleep. The plan is repeated each night until the child successfully sleeps through the night for 5-7 consecutive days. Once this criterion has been met, one night of awakenings can be skipped per week until the child is no longer waking during the night (Rickert & Johnson, 1988).

The Bedtime Pass

Oftentimes, a child may resist going to sleep, and call out or leave their bedroom to seek their parents. One intervention that may be beneficial in treating these behaviors, is use of a bedtime pass. Parents may want to provide their child with a pass that can be exchanged for leaving the bedroom for a brief amount of time. The bedtime pass may be a small index card with the child's name written on the top. Departures from the bedroom should be short in duration and serve a specific purpose, such as, getting a drink, going to the bathroom, or giving the parent a hug. Once the pass has been used, the child must surrender it to the parent, until the next bedtime. Depending on the frequency of calling out or leaving the room (as identified during the baseline sleep log) the child may be provided with additional passes. If the child engages in problem sleep behavior after the passes have been exchanged, the parent should use the escape extinction procedure discussed above.

Sleep disturbances are a common issue that many families of children with disabilities face. Because sleep interventions often involve sleep disruptions for those implementing the plan, the plan should be reviewed with the parents to ensure the likelihood that they can and will implement it. Often, plans will need to be modified to fit into a parent's work and family lifestyle. As with any treatment, it is important that all members of the family remain consistent when applying a new intervention. Even siblings play an important role in treating sleep disturbances, as they can serve as models for appropriate sleep behavior by following a nighttime schedule and remaining in their bed throughout the night. With the use of research-based interventions, along with a great deal of patience and persistence, sleep disturbances can be put to rest for many families of children with autism.

References

Durand, V. M. (1998). Sleep better! A guide to improving sleep for children with special needs. Baltimore, MD: Paul H. Brookes Publishing.

Durand, V. M. & Mindell, J. A. (1990). Behavioral treatment of multiple childhood sleep disorders. *Behavior Modification*, *14*, 37-49.

France, K. G., Blampied, N. M., & Wilkinson, P. (1991).Treatment of infant sleep disturbance by trimeprazine in combination with extinction. *Journal of Developmental Behavior and Pediatrics, 12*, 308-314.

Friman, P., Hoff, K. E., Schnoes, C., Freeman, K. A., Woods, D. W., Blum, N. (1999). The bedtime pass: An approach to bedtime crying and leaving the room. *Archives of Pediatric and Adolescent Medicine,* 153, 1027-1029.

Lamberg, L. (1994). Bodyrhythms: Chronobiology and peak performance. New York: William Morrow & Company.

Lozoff, B., Wolf, A. W., & Davis, N. C. (1985). Sleep problems seen in pediatric practice. *Pediatrics*, *75*, 477-483.

Mindell, J. A., & Durand, V. M. (1993). Treatment of childhood sleep disorders: Generalization across disorders and effects on family members. *Journal of Pediatric Psychology*, *18*, 731-750.

Piazza, C. C., & Fisher, W. (1991). A faded bedtime with response cost protocol for treatment of multiple sleep problems in children. *Journal of Applied Behavior Analysis, 24*, 129-140.

Rickert, V., & Johnson, M. (1998). Reducing nocturnal awakening and crying episodes in infants and young children: A comparison between scheduled awakenings and systematic ignoring. *Pediatrics*, *81*, 203-212.

You thought Hoboken was only famous for the Cake Boss?
We are Proud to Announce
the 3rd Annual Rock'n 4 Autism Awareness Concert and Festival!

David Celiberti and Dena Russell

It's that time again! We are getting ready for the 3rd Annual Rock'n 4 Autism Awareness Concert and Festival on Saturday, April 27, 2013 from 2:00-6:00pm in Hoboken, New Jersey. This community-based event is co-hosted by Association for Science and Autism Treatment (ASAT) and Hoboken-based HOPES CAP, Inc.

Last April, the concert featured Hoboken's very own Fuzzy Lemons, a popular and family-friendly rock band who wowed the crowd with their infectious songs and charismatic stage presence. It was heartwarming to see scores of children dancing up a storm... and a few moms and dads as well! We were fortunate to have Jessie DeVito and her husband, Mike DeVito (#70) from the New York Jets, assist us, and volunteer their time. Mike not only attended the event for the last two years, but also solicited sponsorships, donated a signed football for our silent auction, and generously agreed to take photographs with fans. We will be eternally grateful to Mike and Jessie for their support!

Over 100 businesses donated money, merchandise, and services, and 50+ volunteers came out to make the 2012 concert a wonderful experience. This momentous support helped us raise almost $20,000! It was such a tremendous success... so we've decided to do it all over again!

This year, the Lemons will be back again to dazzle and entertain. Be ready to enjoy two sets from the Lemons! Cindy Vero from W-KTU (FM 103.5) will be our guest MC. Cindy will bring her upbeat style and energy, and help us make this event an even greater success. We are pleased to share that Hoboken Mayor, Dawn Zimmer, will welcome the audience at the outset of the festivities. Lili's Parties will be on hand to coordinate the arts and crafts and Rachel, the incredibly gifted face painter from Party Faces by Rachel, will be back again.

To date, almost $7,000 in 2013 sponsorships alone have been raised thanks to: Party With Purpose, Hoboken Grace Community Church, BCB Bank (Bayonne Branch), Ironstate Holdings LLC, A Whole New World Academy, Bagel Express, and Premiere Cleaning and Painting Corporation. We are particularly grateful to Party with Purpose who awarded us a $2,500 grant this year. Donations for our silent auction are starting to come in each week and we are getting food donations for our hungry guests, including 200 big cookies from Christopher Street Cookies.

In addition to all the indoor and outdoor fun, attendees will also get the chance to talk with a number of knowledgeable parents and professionals from ASAT, Autism New Jersey, and the Hoboken Special Needs

Concert Continued...

Parent Group who will be providing information and take-away materials about awareness, education, and best practices in the field of autism.

For more details about the Rock'n 4 Autism Awareness Concert and Festival, please visit our Facebook page at: www.facebook.com/R4AA.Hoboken.

If you would like to volunteer to help with this event or donate an item for our silent auction, please contact David Celiberti at dceliberti@asatonline.org. Please see the box below for more information about potential bid items.

If you live in the area, please come out and join us. We look forward to seeing you there!

Donate Items for Our Silent Auction.

This is ASAT's first year using Bidding for Good. This means that our bidding can be opened up to anyone! We created a list that details donations that may serve as successful silent auctions bid items. Much of this is based on data collected by Bidding for Good. Data include hundreds of live online auctions that have identified bid items that drew the greatest number of bidders, and the greatest revenues. Check out the list below:

1. Travel packages and hotel stays;
2. Unique experiences such as, aerial adventures, lunch with a celebrity, and personal tours of fascinating places;
3. Sports memorabilia;
4. TV and movie memorabilia;
5. Collectibles; and
6. Gift certificates (restaurants, stores, businesses in which merchandise can be offered online).

Message from SIAT Executive Director: David Celiberti, PhD, BCBA-D

Dear SIAT Subscribers,

Happy New Year! On behalf of ASAT, I hope 2013 brings you good things. As you may recall, we shared details about many of our recent accomplishments in the Fall 2012 issue of Science in Autism Treatment (SIAT). At that time, we welcomed Dana Battaglia, PhD, CCC-SLP, and Dena Russell, MS, to ASAT's Board of Directors. Dana will co-chair our Public Relations Committee, and Dena will serve on the Development and Fundraising Committee and also coordinate and support our various fundraising efforts such as the 3rd annual Rock'n 4 Autism Awareness Concert.

I am also happy to share that we are welcoming a second group of Externs to our team. These hardworking young professionals are supporting ASAT with a wide array of tasks integral to our mission and initiatives. We also recently created Coordinator level positions to further our efforts in a number of circumscribed areas. These wonderful additions to our team are listed on page 3.

With this influx of human resources, we are anticipating an even more productive new year! It is with great pride and optimism that I outline an array of goals and initiatives for 2013:

- Increase Science in Autism Treatment subscriber base from 7,000 to 10,000, and represent over 90 countries.
- Redesign our website www.asatonline.org and launch an ASAT App.
- Launch "Autism Guide for the Media" on the home page of our website.
- Launch a webpage for parents with a newly-diagnosed child.
- Expand website offerings to include translation of content into Spanish and other languages, including directions on how to translate the whole site.
- Increase our Facebook "fans" to 7,000, Twitter followers to 1,000, and increase ASAT's presence on quality autism community blog sites.
- Continue to focus on increasing presence within the medical community, particularly pediatricians and family practice doctors; make information on ASAT and science-based treatment available to them.
- Increase ASAT's presence at state, regional, national and international conferences.
- Provide information regarding ASAT and autism to faculty in special education, psychology, and speech pathology programs nationwide.
- Expand coverage of genetics, epidemiology, assessment and biologically-based treatment issues in our newsletter and on our website.
- More extensively tap into the wealth of experience and expertise of our Advisory Board members and better inform and engage them with respect to ASAT's activities and initiatives.

ASAT Board of Directors

Mary E. McDonald, PhD, BCBA-D
President

Florence DiGennaro, PhD, BCBA-D
Vice President

Barbara Wells
Treasurer

Daniela Fazzio, PhD, BCBA-D
Secretary

David Celiberti, PhD, BCBA-D
Executive Director

Dana Battaglia, PhD, CCC-SLP
Leigh Broughan, MA, BCBA
Preeti Chojar, MCA
Kathryn Dobel, JD
Ruth Donlin, MS
Elizabeth Dyer, MA, CCC-SLP
Joseph Forgione, MBA
Sabrina Freeman, PhD
Sara Jane Gershfeld, MA, BCBA
Peggy Halliday, MEd, BCBA
Barbara Jamison, BA
Scott Myers, MD, FAAP
Daniel W. Mruzek, PhD, BCBA-D
Joshua K. Pritchard, PhD, BCBA-D
Dena Russell, MS
Tristram Smith, PhD
Bridget Taylor, PsyD, BCBA-D

ASAT
PO Box 3250
Hoboken, NJ 07030

E-mail: info@asatonline.org
Website: www.asatonline.org
Facebook: www.facebook.com/Asatonline
Twitter: www.twitter.com/asatonline

Letter from the CEO continued...

- Host the 3rd Annual Rock'n 4 Autism Awareness Concert in Hoboken, New Jersey on April 27th (please see page 9 for more information).
- Continue biweekly Media Watch responses to accurate and inaccurate portrayals of autism treatment, and increase emphasis on topics related to the adult population.

I hope you are excited about the array of goals outlined above and believe that ASAT has an important place within the autism community. We cannot carry out our important work without the support of generous sponsors and donors. In fact, the ongoing success of ASAT is predicated on your support. If you are affiliated with an organization that shares ASAT's commitment to science in the treatment of autism, please consider becoming a 2013 Real Science Real Hope Sponsor. We are pleased to report that 40 organizations participated last year and we raised more in 2012 than any of the prior years. Please see page 23 for more information about sponsorship and descriptions of our Partner and Champion level sponsors on page 25.

You can find our 2012 Donor Wall on page 24. As we move into 2013, we also welcome the support of individual donors. If you recognize the need for accurate information about autism treatment, believe in the relevance of science, and want to support our efforts to change the conversation about autism treatment, please donate online at http://www.asatonline.org through PayPal. Any amount will be deeply appreciated and will help support the various initiatives listed above. Finally, please check out the webpage for Tastefully Simple by clicking here: TastefullySimple4ASAT. We are happy to share that 15% of your order will be donated to ASAT.

I hope that this year will bring a deeper appreciation for the relevance of science in guiding autism treatment, greater expectations of accountability across all treatment providers, more accuracy within media portrayals, and heightened awareness of the pitfalls and distractions of pseudo-science.

I wish you all a happy and healthy new year!

Best,

Giving Never Tasted So Delicious!

You're invited to a special fundraising event!

Raise money for ASAT!! When you order now through April 30th, 15% of net food sales will be donated to ASAT.

See below for an additional special prize!

Just click here: TastefullySimple4ASAT and 'shop now'!

TASTEFULLY SIMPLE

The food you love, the attention you deserve!

Tastefullysimple.com | 320.763.0695

© 2012 Tastefully Simple, Inc.

All orders placed now through April 1st will be entered into a prize drawing on April 15th!
The lucky winner will receive The Essential 4 Collection (valued at $39.99).

Please review nutritional information and ingredients for those products you would like to purchase.

Book Review: Discrete-trials teaching with children with autism: A self-instruction manual. Canada: Hugo Science Press.   Reviewed by Laurie Brophy, LCSW, BCBA

In an era in which the demand for quality interventions for children with autism is increasing, but funding for training is tight, Fazzio and Martin's self-instruction manual is a welcome and needed resource for parents and professionals alike.

The authors aim to provide users with an overview of the components of Discrete Trial Teaching (DTT), also known as Discrete Trial Instruction (DTI). While DTT is just one of the many behavior analytic teaching methods that fall under the umbrella of applied behavior analysis (ABA), it is a key component of many intervention programs for children with autism spectrum disorders (ASD).

The preface to this self-instructional manual introduces the reader to some background information related to early intensive behavioral intervention (EIBI) and discusses the levels of supervision recommended for individuals conducting DTT.   And, like any good behavior analyst, the authors did their research on the efficacy of their manual and found that, on average, it takes between four and five hours to complete, and participants were able to implement DTT role playing with a child with autism, with approximately 90% accuracy.

Fazzio and Martin used a logical flow in their manual by breaking it down into two sub-sections comprised of six chapters each.   Using well designed teaching strategies themselves, particularly for a self-study method, the authors break chapters down by concept and provide key study questions for each concept. The reader is then provided with review study questions at the end of each chapter, and a test for mastery at the end of each section.

While the book moves quickly into the meat-and-potatoes of DTT instruction, the authors give due attention to the "prerequisite" concepts. The reader is first introduced to an explanation of the term Autism as well as given a succinct definition of ABA and some of its many applications.   Many professionals in this field will surely appreciate the author's clarification that DTT is only one behavioral technology of ABA, as many parents, educators, and related professionals maintain the misconception that the terms are synonymous.

Foundation knowledge is continued as the reader is introduced to the basics of behavior, stimuli, and the three-term behavior contingency. Providing examples of a discrete-trial using the three-term contingency and interactions between adult and child that are not examples of discrete trial teaching is helpful for clarification and reader comprehension.   Too often, instructors attempt to stimulate behavior change without having a working understanding of essential behavior principles such as positive and negative reinforcement, extinction, and punishment. Of course, shaping and fading are not overlooked either.   Basic concepts are carefully introduced along with some useful examples. Given the significance of positive reinforcement and reinforcement selection to DTT, it was an excellent choice of the authors to provide a chapter dedicated to a more in-depth lesson on this topic.

With the fundamentals covered, the second section focuses on the components of DTI, starting with data collection and a focus on most-to-least prompt fading. The authors offer a sample data form, which is used throughout the book. Importantly, the authors clearly explain that one should expect to encounter many different types of data collection forms / processes depending on the program, prompting procedure, and so forth.

The next three chapters, chapters 8 through 11, focus on the five components of the Discrete-Trials Teaching Evaluation Form (DTTEF) that was developed and researched by the authors as a way to help determine if an individual has developed the necessary basic skills to implement DTT programs. These components are:
1. Prepare to Conduct a Teaching Session;
2. Manage Antecedents on Each Trial;
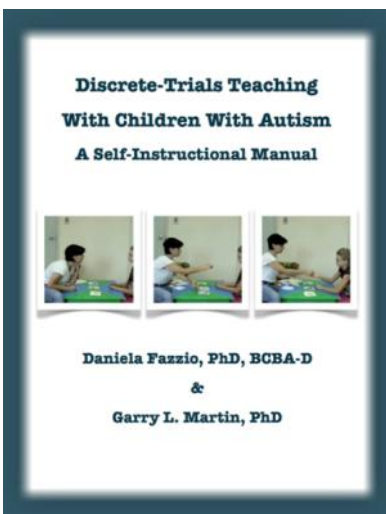
Book Review continued...

3. Manage Consequences for Responses and Record Data;
4. Following an Error, Conduct Error Correction Procedure; and
5. Fade Prompts Across Trials.

Each of these five components is then broken down into sub-components which are explained and reinforced with study questions and practice / role play exercises.

Fazzio and Martin are very clear that certain masteries should be achieved before moving on to the next section. Solo practice as well as role playing these components with a training partner is encouraged by the authors. When using this manual to train program staff, as they progress through the manual, I would encourage the supervisor to require the trainee to complete solo practice for each component as indicated and then role play with the supervisor, who could sign off on whether mastery is met or if

further practice for that component is needed. Self-practice rating sheets are also included – this is an excellent addition to this manual. Again, as a supervisor, it may also be helpful to have the trainee complete each rating sheet initially, and then have both supervisor and trainee simultaneously rate the staff using this form. Upon reaching the end of chapter 11, the authors direct the reader to stop and practice all the components of the DTTEF, and to not move on to the final chapter unless they are able to do all the components correctly.

The manual may focus on learning the basics of conducting DTT programs, but it would not have been complete without the final chapter: Decreasing Problem Behaviors. In this chapter, Fazzio and Martin first emphasize the importance of function-based procedures (the necessity of determining underlying function prior to implementing a plan or technique to reduce a behavior).

The remainder of the chapter is then dedicated to brief summaries, examples, and study questions relating to procedures for decreasing problem behaviors.

As the authors aptly state, this manual is not intended to be a substitution for supervision or consultation – and one should be cautious of any book or manual that claims to be! It is, however, an excellent resource for programs, training new staff, and for in-home service providers teaching parents how to implement DTT.

For more information about the manual, the authors, and the research, or to order, please access: http://www.dtteaching.com/

Disclaimer: Dr. Fazzio, the first author of the book being reviewed here, is a member of the Board of Directors of the Association for Science in Autism Treatment, the organization that publishes this newsletter.

We are excited to announce that we will begin the process of redesigning the ASAT website. We would love the feedback from our supporters! Please take a moment to fill out this brief survey about the ASAT Website:

Consumer Corner: Tech Corner Debut (AAC Apps)

For this review, I solicited the help of an Augmentative and Alternative Communication (AAC) expert, Kasey Philpott. She is a Speech and Language Pathologist working at Little Star Center (LSC).

The first application I chose to discuss is a commonly used AAC app called Proloquo2go (P2G). P2G is a text-to-speech app. If you are new to AAC, you may wonder what is meant by text-to-speech.

Well – basically, it means that the person looks at his iPad and uses its touch screen to communicate by arranging pictures in the app to form a sentence. After this arrangement, he presses a button (labeled "talk"), and the iPad "speaks" or "reads" his sentence, hence the text-to-speech!

This specific app is commonly used with non-vocal learners as their primary form of communication. Learners at our center use the app across a range of complexities from a simple one word request to larger communiqués which can include adjectives or other phrases commonly used in sentence strips, such as "I want…" Learners also use the app to label different items in their environment (very handy for joint attention). One use that we value greatly from this app which is used by one of our learners, is the ability to provide important personal information if, tragically, she became lost or separated from her caregivers. As a non-vocal teenager with ASD without this app, she would be unable to respond appropriately to anyone who approached her and asked, "are you lost?" or "can I help you?" With P2G, she can respond by "telling them" her name and address. AAC and text-to-speech apps give a voice to individuals who otherwise are without the ability to produce speech.

The alternative communication industry has been an area significantly impacted by new, light-weight, fast, and mobile devices. The iPad, (or its smaller cousin, the iPod touch) is more portable then prior alternative communication devices such as the commonly used Dynavox or Smartbox. P2G is, in this reviewer's humble opinion, the premiere assistive communication app for an iDevice (at the time of this article, P2G is only available on Apple® mobile devices). However, with many premiere goods, this item comes with a steep price ($199 through the iTunes store). With P2G, my conclusion is that you get what you pay for— its expensive, but probably worth it!

Check it out at www.assistiveware.com for a more comprehensive discussion about all the features and purchase options. Some of the key features of the app that I value include:

- 14,000 pre-loaded symbols/ icons
- Easy to add pictures and customize vocabulary
- Advanced word prediction (start typing and the system gives several options as to what you are trying to type)
- Multi-user support (ideal for classrooms where one device may be shared)
- Ease of use
- Great options for a variety of male/female voice output representing individuals of all ages
- Back up vocabularies and share capabilities with other devices
- Easy to change the pronunciation of words

One criticism of iDevices and all AAC devices is that the malfunction of the system can rob a person of their "voice". At Little Star Center, we find that most of our individuals can use both the symbols preloaded in the P2G app and Boardmaker symbols interchangeably. There-

Consumer corner continued...

fore, we recommend a backup "low tech" binder with pictures representing the individual's commonly requested items. The iPad is built like a tank so we have not typically had to resort to low tech binders due to malfunction. However, we do resort to these binders when devices are forgotten at home. In these instances the individual(s) had no difficulty adjusting to actual physical pictures to make requests. Another work around for addressing times in which a device is forgotten somewhere, is to have the app loaded on several devices or have a version of the individual's pre-set app backed up to quickly share with loaner hardware.

In fact, the ability to share backups is one of the better features; one that may justify the high price. With this you can have the most current version of someone's communication system loaded on all your devices. This is really useful when you have multiple instructors (often with multiple iDevices) teaching new language targets and updating the communication system. As mentioned above, while the P2G comes preloaded with several icons, it is fairly easy to customize items by taking a picture and typing the name of the item.

Another great feature of P2G is the interface and the ability to easily expand and individualize the available communication options. This is particularly useful for novel requests suited to an individual's environment. The Wii-U is a new gaming system, out this year, and likely to be a hit with lots of people. However, someone may already have several gaming systems in their home, rendering a simple game or video-game icon too general. It is important to have several specific icons to reinforce each specific request. To do this, you simply take a picture of the Wii-U and type Wii-U. The text output may need a little work, since "Wii-U" is a novel word, but you can adjust the system to say something that is fairly close to the targeted word. P2G is also well suited for teaching other forms of communication other than requesting.

The LSC has used the P2G app to teach learners to label items in their environment, and to engage in basic conversation skills. Having the ability to label several items is essential for expanding communication to additional requests and conversation topics. For example, a learner was successfully taught to use the device to identify different people

he works with and encounters throughout his day. He also learned to label various actions. He then spontaneously requested for one of the individuals he learned to label to tickle him, an action he was also taught to label. The P2G app is a robust application well worth the high cost when identifying a viable option, in particular as an alternative communication option for non-vocal individuals with ASD.

As many of you may know, the fact you can use an iDevice to access many fun games and videos is a huge strength, but also a nuisance. Especially when using the device for communication or computer based instruction. The pesky home button allows users to close out of an app and open other, likely more fun, apps. However this may not be the intended or desired use. This difficulty with the home button inspired me to segue from the P2G review, to evaluate a possible solution.

An internet search turned up one possible solution, the Addycase with its "patent pending anti-home button cover." The Addycase company (www.addycase.com) graciously offered a sample cover to test. The case shipped quickly and arrived the next day. The Addycase representative indicated they only had a bright pink case to sample. However, the company has several additional bright colored cases available. The case appeared very well constructed. The cover was tested on a second generation iPad. The cover fit very snugly, in fact it took a little muscle power to put it on. Once on, the home button was covered with a thick plastic, making it impossible to push the button. I tried while applying significant pressure. Unfortunately, it is fairly simple to flip forward the part of the case covering

the home button, and therefore allow full access to the button (hint, this is something you will want to do not in view of the individual using the device). The next step was to see how the case holds up when used by an iDevice expert.

We have a 5 year old learner at LSC who is very familiar with all iDevices. He uses iPads, iPods, and iPhones to communicate via P2G. He can often be found on each of these devices with one of his favorite activities, watching the Backyardigans. To test out the Addycase, I adjusted the settings on his iPad so that it would not go to sleep before giving it to him. Immediately after we gave him the iPad, he tried to locate the home button. He spun the device around and tried feverously pressing the area where the home button was (now covered), and even tried pushing the camera hole at the top. It took him about 8 hours of iPad use before he was eventually able to slide his finger under the Addycase and access the home button.

The Addycase is still a viable option although it did not stand up to our kiddo's rigorous testing. I expect the case would be quite effective with anyone who doesn't have a long history of using the home button.

The Addycase, when combined with software on the devices, such as P2G provides a solution for our learners who need extra support to communicate their wants, needs, and desires.

I urge you to explore these options and let us know if you have other technology apps or devices you would like to see reviewed in the Tech Corner!

Treatment Summary

Learning Experiences and Alternate Program for Preschoolers and their Parents (LEAP)

Description: The LEAP Model (Learning Experiences and Alternate Program for Preschoolers and their Parents) is a program where children are included from Day 1 in preschool classrooms with their typically developing peers. The child's peers are taught to facilitate the social and communicative behaviors of children with autism spectrum disorder. Families are also taught to apply behavioral strategies when interacting with their child on the autism spectrum. The methods they utilize include: a) peer-mediated interventions, b) errorless learning, c) time delay, d) incidental teaching, e) pivotal response training, and f) the Picture Exchange Communication System (PECS).

Research Summary: Early single-case subject design studies documented that typically-developing peers could be taught skills to facilitate play and social interaction with children with autism. A recent study (2011) used a randomized controlled trial of the LEAP Model. This study showed that the group of children whose teachers received two years of coaching in the LEAP model performed better on some standardized measures such as the Mullen Scales of Early Learning than the group of children whose teachers only received a manual outlining the LEAP model. To date, the LEAP model has not been compared to established early intensive behavioral treatment models.

Recommendations: The findings of the research suggest that peers require training to facilitate social interactions with children with autism. Additional research, however, is needed in the LEAP model as a comprehensive treatment program. Important next steps for research are replications by independent investigators and comparisons against established early intensive behavioral treatment models.

Selected scientific studies:

Strain, P., & Odom, S.L. (1986). Peer social initiations: An effective intervention for social skill deficits of exceptional children. *Exceptional Children, 52,* 543-551.

Strain, P., & Bovey II, E. (2011). Randomized, Controlled Trial of the LEAP Model of Early Intervention for Young Children with Autism Spectrum Disorders. *Topics in Early Childhood Special Education, 31,* 133-154 .

Thank You!

5,528 fans

Are you one of them?

With your help, we are reaching out to more and more people every day, united in their commitment to accountability, respect, and science in autism treatment. Individuals with autism deserve nothing less! Join us on Facebook (www.facebook.com/ASATOnline) to stay connected and get immediate content updates on:

ASAT News

Clinical Corner

Open Letters

Conferences

Media Watch

ASAT Events

Focus on Science
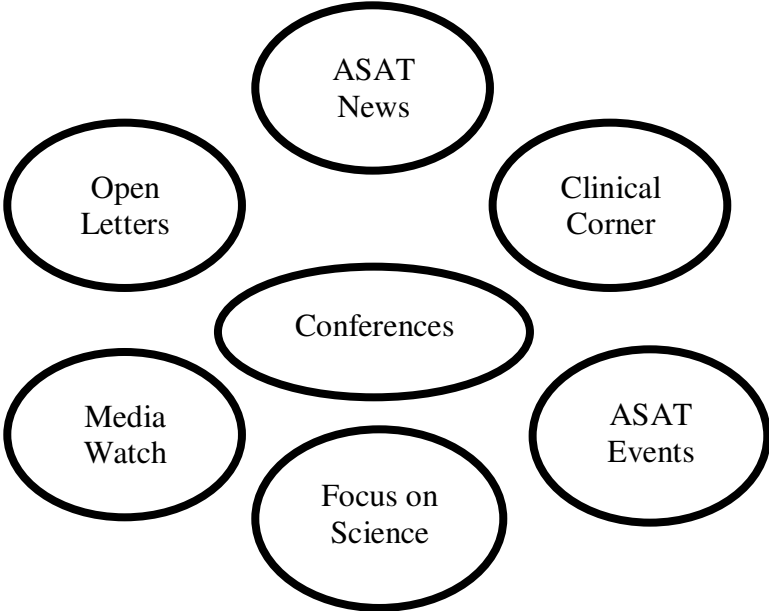
Follow us on

www.twitter.com/ASATonline & www.twitter.com/SIATNewsletter

Research Review: Community-based Intensive Behavioral Intervention

Leaf, R. B., Taubman, M. T., McEachin, J. J., Leaf, J. B., & Tsuji, K. H. (2011). A program description of a community-based intensive behavioral intervention program for individuals with autism spectrum disorders. *Education and Treatment of Children, 34*, 259-285.

Reviewed by: Jessica Rothschild, MA, BCBA, Caldwell College

The article summaries in this newsletter investigated the use of cognitive behavior therapy and intensive behavior intervention. Specifically, Leaf and colleagues conducted a 10-year analysis on the effects of a community based intensive behavior intervention program at four different sites. In the second article summary Wood and colleagues investigated the use of modified cognitive behavior therapy for children diagnosed with an autism spectrum disorder who also experienced anxiety. Enjoy!

Sharon A. Reeve, Ph.D., BCBA-D, SIAT Research Corner Coordinator

Why research this topic?

One of the most empirically supported treatments in improving functional skills, intellectual scores and reducing problem behaviors in individuals with autism is intensive behavioral intervention (IBI). IBI is a treatment approach that is based on the principles of applied behavior analysis. There is an abundance of research on IBI that is delivered by university-affiliated funded programs, but little on community-based agencies that provide the majority of IBI to children with autism. It is, therefore, important to describe and evaluate the effectiveness of agencies that provide IBI to children with autism.

What did the researchers do?

Researchers conducted a 10-year analysis on the effects of a community based IBI intervention program across 64 participants at four different sites located in southern California, the United Kingdom, Australia, and Hong Kong. Sites were identical in structure, consultation, staff roles and training, treatment implementation, philosophy, and intake. Differences between sites were based on funding and cultural differences. For example, more public funding was available in California than in Australia. Also, nannies tended to have a larger role in caregiving in Hong Kong than at the other sites. The program was modeled after Lovaas's UCLA Young Autism Project, with changes including an increase in parent training, supervision of intervention in schools, and more advanced language programming. Another emphasis was on the use of behavior-increasing strategies rather then behavior-reductive strategies. Intervention hours averaged at 21.7 hours per week with treatment lasting between 12 and 16 months.

What did the researchers find?

Results indicated that participants fell into one of three groups based on IQ scores and school placement at follow up: best outcome, best outcome-revised, or not best outcome. Best outcome included individuals with IQs 85 or above and who successfully completed grade level work in a regular education class with no supports. Best outcome-revised included individuals with an IQ 85 or above, receiving minimal support in the general education classroom.

The third group included individuals with IQs lower than 85 and not placed in a general education class. Overall, out of the 64 individuals 39% met best outcome criteria and 31% met best outcome-revised. Treatment integrity scores showed that staff were competent in providing instructions, giving appropriate feedback, appropriate pacing, setting and implementation of tasks.

What are the strengths and limitation of the study?

This is one of the first studies to report outcomes of an evidence based model for community based programs. The study also identified core features for IBI treatment packages, adaptations needed to implement IBI in different countries, and strategies for training staff and maintaining a high level of treatment integrity in the context of an international agency. Thus, the study extends prior research on the effectiveness of IBI based programs.

Limitations of the study are that it did not incorporate an experimental design (i.e., there was no control group) and that it did not include measures of autism severity and levels of disruptive behavior prior to and after intervention. Also, outcome measures were administered by agency personnel rather than outside evaluators; the reliance on agency personnel may have biased the results to some extent.

What do the results mean?

This study suggests that community IBI based programs for individuals with autism can be effective in a variety of settings. Further studies with control groups and assessments by outside evaluators are needed to confirm these promising findings.

Research Review: CBT for anxiety in children with ASD: RCT.

Wood, J. J., Drahota, A., Sze, K., Har, K., Chiu, A., & Langer, D. A. (2009). Cognitive behavioral therapy for anxiety in children with autism spectrum disorders: A randomized, controlled trial. *Journal of Child Psychology and Psychiatry, 50,* 224-234.

Reviewed by: Kathleen Moran, MA, Caldwell College

Why research this topic.

Approximately 30-80% of children diagnosed with autism also experience severe anxiety. For example, they may show intense fears of particular situations accompanied by physiological arousal. Several studies indicate that a modified cognitive behavioral therapy (CBT) treatment may help lessen anxiety symptoms in such children, but these studies have had important limitations such as insufficient assessment of anxiety before and after treatment and an absence of measures of whether therapists implemented the treatment as intended. Additional research, therefore, is needed.

What did the researchers do?

The researchers used an individually focused modified CBT intervention. Children in this study met research criterion for autism spectrum disorder and anxiety disorder based on an independent evaluation, and a verbal IQ above 70. They were split into one of two groups: a treatment group (i.e., one that received intervention) and a control group (i.e., one that did not receive intervention). In the treatment group, training was implemented with children and parents over 16 weeks based on a modified version of the CBT program Building Confidence. Parent training focused on supporting children during interactions while using positive reinforcement and communication skills. For children, the intervention included teaching coping skills in a therapeutic setting and then practicing them in real-life situations. Sessions addressed each child's specific fear. Specific areas of emphasis included friendship skills, social acceptance, and self-help skills. Friendship skills training consisted of social coaching on appropriate ways to enter interactions and maintain conversation. Social acceptance was addressed by forming "buddy" systems and mentoring programs. Self-help skills focused on using motivating concepts and task analysis to break difficult skills into smaller steps.

What did the researchers find?

Independent evaluators rated children's anxiety before and after intervention based on structured diagnostic interviews with either the parent or child. The ratings ranged from 0 (no anxiety at all) to 8 (very, very much anxiety). Before the study, anxiety levels did not differ significantly between the groups. After intervention, all but one participant in treatment met criterion for a positive treatment response, and most participants were free of anxiety. In contrast, participants in the control group did not show a significant reduction in anxiety.

What are the strengths and limitation of the study?

One strength of the study is that the treatment was designed to be flexible enough to be tailored to a child's specific needs. Another feature is that training took place within the child's natural setting helping to promote generalization and maintenance of the skill. A limitation of the study is the inclusion of child report measures. Children with autism may self-report anxiety in a different way from children of typical development.

What do the results mean?

This study offers initial support for the use of a modified CBT program for children with autism and co-morbid anxiety disorders. Intervention was effective in diminishing anxiety as well as promoting generalization and maintenance for newly learned skills. With little research on treating anxiety in children with autism, additional research is needed to determine whether these findings are replicable and to better understand autism related characteristics that may cause or compound anxiety.

SHOW YOUR VALUES
SHOW YOUR BRAND

The Association for Science in Autism Treatment (ASAT) accepts advertising for the ASAT.org website, newsletter and other ASAT publications to offset its operational expenses. Products or services accepted for advertisement by ASAT will be consistent with our mission to disseminate accurate, scientifically-sound information about autism and its treatment and to improve access to effective, science-based treatments for all people with autism, regardless of age, severity of condition, income or place of residence.

If you share our values, take this opportunity to support our mission and share yours to 7,000 SIAT subscribers interested in autism treatment, services, and products.

2012 Advertising Rates	Non Sponsors	Partners $5000/year	Champions $2000/year	Benefactor $1000/year	Alliance $500/year	Patron $200/year
	See rates below	Two free ads + 50% discount	One free 1/2 page + 50% discount	One free 1/4 page + 40% discount	40% discount	20% discount
Full Page 9" x 7"	$800/Issue	$400/Issue	$400/Issue	$480/Issue	$480/Issue	$640/Issue
Half Page 4.5" x 7"	$500/Issue	$250/Issue	$250/Issue	$300/Issue	$300/Issue	$400/Issue
Quarter Page 2" x 7"	$300/Issue	$150/Issue	$150/Issue	$180/Issue	$180/Issue	$240/Issue
Website 4" x 2"	$100/Month	$50/Month	$50/Month	$60/Month	$60/Month	$80/Month

Web $100

Contact us:
asatads@asatonline.org

Advertisement on www.asatonline.org, Science in Autism Treatment newsletter, or other ASAT publication does not imply endorsement by ASAT of the advertised company, service or product. All advertisements will be clearly labeled as such. ASAT has no formal relationship with any of its advertisers. Although ASAT expects that all advertising organizations will act in accordance with ASAT's policy, ASAT does not assume responsibility for ensuring that advertisers engage in behavior that is consistently congruent with the statements above. Complete policy and protocols here: http://asatonline.org/newsletters/advertisers.htm

Does Your Agency Share ASAT's Values?

ASAT believes that individuals with autism have the right to effective treatments that are scientifically demonstrated to make meaningful, positive change in their lives.

We believe that it should not be so challenging for families to find accurate information about the efficacy of various autism interventions.

ASAT works toward a time...

.... when all families will be empowered with skills in identifying and choosing the most effective, scientifically-validated interventions for their child.
..........when the media will educate and not confuse parents by providing accurate information and asking the right questions.
..........when all providers will be guided by science when selecting and implementing interventions.

What It Means to Be a Sponsor…

ASAT's sponsors have indicated their support of the following tenets:
1. All treatments for individuals with autism should be guided by the best available scientific information.
2. Service providers have a responsibility to rely on science-based treatments.
3. Service providers should take steps necessary to help consumers differentiate between scientifically validated treatments and treatments that lack scientific validation.
4. Consumers should be informed that any treatment lacking scientific support should be pursued with great caution.
5. Objective data should be used when making clinical decisions.

…Become a 2013 Sponsor Now!

These sponsorships not only provide financial support used specifically for our dissemination efforts, but also send a clear message that ASAT's vision is shared by others within the professional community.

The tasks of educating the public about scientifically-validated intervention and countering pseudoscience are daunting ones, and ASAT appreciates the support of all of its sponsors.

If you are interested in becoming a 2013 Sponsor, please visit the sponsor page on our website at www.asatonline.org/about_asat/sponsors.htm#learn.

Thank you for your consideration!

2012 Sponsors in
Real Science, Real Hope Sponsorship Initiative

PARTNER $5,000
Behavior Analysis Center for Autism

CHAMPION $3,000
Little Star Center

CHAMPION $2,000
STE Consultants , LLC
Autism Partnership
Organization for Research and Learning

BENEFACTOR $1,000
ELIJA Foundation
ELIJA School
Rethink Autism
Thivierge & Rothberg
Working with Autism

ALLIANCE $500
Autism Intervention Services
Autism New Jersey
Connecticut Center for Child Development
Eden II Programs
Four Points, Inc.
Quality Services for the Autism Community (QSAC)
Virginia Institute of Autism

PATRON $200
A Bridge to Learning
Aging with Autism
Alpine Learning Group
Asperger Syndrome and high Functioning Autism Association (AHA), Inc.
Autism Awareness
Autism Research and Treatment
The Bay School
Beacon Services

Behavior Development Solutions
Child Study Center of Fort Worth
Commonwealth Autism Services
Coyne and Associates
Different Roads to Learning
Gary Mayerson & Associates
Institute for Educational Achievement
Kansas City Autism Training Center
Lizard Children's Learning Centre
Lovaas Institute Midwest
MECA/PAAL
NYCA
Pyramid Educational Consultants, Inc.
Quest Autism Program
Room to Grow
SKF Books
Somerset Hills

Please see page 25 for more information about our Partner and Champion level sponsors.

IMPORTANT DISCLAIMER: ASAT has no formal relationship with any of the sponsor organizations. Furthermore, their stated endorsement of the above tenets is not verified or monitored by ASAT. Although ASAT expects that all sponsoring organizations will act in accordance with the above statements, ASAT does not assume responsibility for ensuring that sponsoring organizations engage in behavior that is consistently congruent with the statements above.

2013 Donor Wall

Benefactor $1,000 - $1,999
Patrick Ramsey*

Alison & Bernie Webb

*Matching Gift from Bank of America

Alliance $500 - $999
Olga Brunot
Dominic Mazzoni*
Carol & Tom Sloan

*Matching Gift from Google

Donations in Honor of:
[1]Peggy Halliday
[2]Milton Taffet
[3]Young Michael Dugan
[4]Staff at Washington
  at Ridgewood School
[5]Priscilla Latessa
[6]Kathryn Dobel

Patron $100 - $499

Rachel Angelos
Scott Arenare
Andy Bondy
Philippe-Edouard Boursiquot
Emerson Bretous
Jennifer Engheben
Sharon Epstein
Deborah Fein
Caryn   Fleming
Mayachela Colon Garcia[6]
Joanne Gerenser
Nathan Gershfeld
Julia Goldberg
Gina Green
Randy Horowitz
Lisa Kende

Steven Khuong[6]
Susan Kienker
Loren King
Lori Lapin Jones
Alan Leslie
Denise Lombardi
Ana Madeira
Dick Malott
Nicole Mammina
Joyce Mauk
Robert Mcintyre
Dana Meadows
Nina Montemagni
Patricia Myers
Bobby Newman
Julia Painter

Nancy Phillips
Donn Quinn
Karen Woodfall Quinn
Suzanne Reek
Sharon Reeve
Joyce Rosenfeld
Kathryn Ruffino
Charles Schembri
Lauren & Leif Schnell-Albright
Natalie Seidman
Roberto Tuchman
Leanne Tull
Steph Weingarten
Mike & Kelly Windsor
David Yeske

Friend $1 - $99

Ability Builders & Associates
Maria Ali
Stasia Amenta
Toli Anastassiou
Stephen Anderson
Sarah Andrews
Laura Baccaray
Laura Becker
Jill Belchic-Schwartz
Gordon Bourland
Alison Bratlie
Joanne Buccellato
Corinne Buda
Will Burrow
Warren Carter
Michael & Louise Chiarulli
Dorothy Chusid
Frank Cicero
Regina Claypool Frey
Andrina Cohen
Roxanne Conlon
Gina Cornicelli
Geoff Debery
David Diosi
Corrine Donley
William Dube
Hope Ellena
Mary Anne Enea
George Fasanelli

Sharon Fitzgerald
Jill Forte
Constantina Gaddis
Albert & Ilana Galatan
Alice Georgeton
Ariana Golub
Ivy Gonzalez
Kim Greene
Stephen & Theresa Grieco
Marissa Gynn[4]
Laurie Haber
Heather Hall
Megan Halliday[1]
Catherine Hamilton
Sandra Harris
Jacki Harth
Michelle Hecht
Jennifer Hieminga
Kristin Hodulick
William Horn
Sandy Hornstein
Veronica Howard
Debbie Hughes
Aurore Hutter
Ilene Jarolem
Rosanne Keegan
Amanda Kelly
Jonathan Kimball
Vicki Knapp

Adrienne Koslow
Stephanie Krug
Gerald Lachter
Debbie Lancette
Eric Larsson
Anthony Latessa[5]
Alan Leslie
Samuel Litt
Sam Livits
Dominica Lumb
Nancy Lynch[3]
Peter Macaluso
Brandon Malmberg
Sarah Mammina
Paul McDonnell
Jodilee McGhee
Luna Mills
Agatha Morton
Eileen Moss
Ellen Murphy
Christine Nagy
Claudia Namias
Ellen Paige Nelson
Joel & Jean Parisy
Shela Pearl
John Pergola
Danielle Redmond
Carol Redmond
Judi Rosenzweig

Stephen Ruvolo
Lauren Saccaro
Johan M. Sanne
Cheryl Schmid
Robyn Schneider
Erin Schneiderman
Edwin Schnell
Beverley Sharpe
Mary Shorette
Aletta Sinoff
Melissa Slobin
Donn Sottolano
David Stagg
David Stalzer
Sorah Stein
Ruby & William Sterling[2]
Katie Stockhammer
Heather Surig
Rhoda Taffet[2]
Teresa Townley
Yvonne Ui Chuanachain
Paul Van Guilder
Jana & Anthony Vitale
Kari Watts
Laughlin Whalen
Sara White
Samuel Woodbury
Elizabeth Woodbury
Wendy Zelaya

Our Champion & Partner Level Sponsors

The **Organization for Research and Learning, Inc. (ORL)** was originally formed in 1998 as Fabrizio/Moors consulting, and reorganized itself as the ORL in 2007. Beginning as a small organization in Seattle with two staff members who served four children during our first year, ORL has since grown to include ten clinical staff members who serve approximately 65 children and families within our private practice. ORL outreach services have affected hundreds of children from places such as Toronto, Pennsylvania, Texas, California, and British Columbia. Throughout this growth and expansion process, we continue to maintain high levels of quality in the services provided. We believe that families have the right to receive science-based services that are individually tailored to the unique needs of their children and the family as a whole. Our services continue to support individuals from the Puget Sound area, in addition to reaching those across the United States and other countries.

Little Star Center is a truly unique and special place for children and families living with autism. This organization was established in 2002 as Indiana's first center providing applied behavior analysis (ABA) services. Little Star allows families to have the best of both worlds: (1) the intense one-on-one personalized therapy that used to only be available in a home program, and (2) the community feel of a center-based program that allows children with autism access to peers, materials and a sensory-friendly facility. Along with Little Star's staff of professionals, families are an integral part of their child's programming which is why Little Star prides itself on having a "family first" philosophy. Based on the fundamental principles of applied behavior analysis (ABA), Little Star provides an atmosphere where children, therapists, and families can interact, support each other and receive on-going training so that each child can reach their full potential in a variety of settings.

Autism Partnership was formed in 1994 to meet the tremendous need for effective services for children diagnosed with autism and their families. Based upon the founders' extensive and unique experiences in providing behavioral treatment to children, adolescents and adults, we have developed a comprehensive program that provides a variety of services. Our current work incorporates the knowledge gained from the directors' intimate involvement with the treatment program developed at the UCLA Young Autism Project during the period of 1975-1987; this approach is combined with our more recent experience delivering services in community based settings. As knowledge about effective behavioral treatments continues to advance, we have also made innovations to increase accessibility to greater numbers of children in a variety of settings. Specifically, we have extended the application of this specialized teaching methodology to children who are older, as it has been established that many older children have greatly benefited from intensive behavioral treatment.

Behavior Analysis Center for Autism (BACA) has been providing efficacious applied behavior analysis services to children and young adults with autism since it was established 2009 by Dr. Carl Sundburg and a group of highly trained board certified behavior analysts (BCBA's). BACA improves the quality of life for every client by ensuring that staff receive and apply intensive, on-going training. BACA is committed to the continuous education and training of its staff by hosting regular seminars and training sessions from its esteemed clinical team; visiting consultants from all over the country are welcomed to come in and consult with staff, deliver training sessions, and to consult with clients to enhance the skills of both staff and clients. Treatment of clients is based on current research findings from the most experienced scholars in the field of behavior analysis in the teaching areas of: language, social, self-help, academic, and employment skills.

The primary goal of **STE Consultants** has always been to increase our clients' quality of life by using the technology of Applied Behavior Analysis (ABA). Specifically, STE provides individualized, 1:1 ABA services to our consumers in their homes, schools and community settings. The purpose of our programs is to decrease our clients' engagement in challenging behaviors and increase their functional and socially appropriate behaviors using evidence-based, best practices based on the large body of empirical research that has been conducted in the field of ABA. STE Consultants works with school districts, health insurance companies and state agencies throughout California, New York, Texas and New Mexico. We also operate the only clinic for Autism and Developmental Disorders in Southeastern New Mexico. STE has the capacity to implement TeleHealth programs anywhere in the United States; current TeleHealth states we operate in are Colorado, Ohio, Pennsylvania and Florida.

Dairy Queen Owners Prove a Little Change Can Make a Big Difference by Ruth Donlin, MS

The Board of Directors of ASAT would like to express our immense gratitude to Larry and Kathy Hannon, owners of Dairy Queen Stores in Old Town, Bangor and Freeport, Maine. Larry and Kathy are parents to a wonderful and talented daughter with autism who continues to benefit greatly from Applied Behavior Analysis. After learning about ASAT's commitment to science-based interventions, they became some of our biggest supporters. Since 2009, the Hannons have placed numerous donation jars in their stores and have raised $10,000 with the help of their benevolent customers. Additionally, they have highlighted ASAT's website on their sign, have an autism information table within their stores, have created billboards, and make ASAT's business cards available to people in their community.

If you are in the area, please stop in and show your support, while feasting on some delicious treats!

TEAM ASAT: Getting Back on Course in 2013 by Ruth Donlin, M.S.

On November 4, 2012, just days before the ING New York City Marathon, Mayor Bloomberg of New York canceled the run due to the city's ongoing recovery from the devastating effects of Hurricane Sandy. Team ASAT's captain and runners had mixed feelings which reflected the public's concerns as well. On the one hand, many supporters felt that continuing with a race that has been tradition for so many years and which has a global reach might help the city return to a degree of normalcy. Conversely, the dominating concern was, "How can we be a part of an event that may divert generators from those in need, and use a significant amount of resources such as bottled water, when so many are without right now?"

Team ASAT worked diligently to raise funds for the marathon, and the officials have informed us that our runners will be given the opportunity to run this year 2013, in 2014, or even in 2015 if they choose. We want to thank our team captain, Dr. Bobby Newman, and our five runners, Helen Bloomer, Jonathan Brunot, Vanetta LaRosa, Nicole Mammina, and Melissa Slobin, who all made a great commitment to this event. Monies donated go to support ASAT's mission and goals.

Looking ahead, Team ASAT runners Bobby Newman, Melissa Slobin and Nicole Mammina have all registered to participate in the Central Park marathon to be held on February 24th, 2013. They have recruited supporters and they will be wearing the TEAM ASAT shirts originally designed for the 2012 NYC Marathon. Donors can rest assured that a full 26.2 miles will be run in their name, supporting ASAT. Thank you for your support!

ASAT is looking forward to the ING NYC Marathon 2013, which is scheduled for November 3rd. If you are interested in running next year or if you have an interest in volunteering, please contact Ruth Donlin at asatevents@aol.com.

If you are interested in donating to ASAT, you can directly contribute to ASAT at http://fundly.com/asatonline.