



# Science in Autism Treatment

## Newsletter of the Association for Science in Autism

Vol. 12 No. 1

Winter 2015

Dear SIAT Subscribers,

With 2015 well underway, I hope this new year has brought you good things. 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 pseudoscience.

As you may recall, we shared details about many of our myriad accomplishments in the Fall 2014 issue of *Science in Autism Treatment (SIAT)*. It is with great pride and optimism that I outline an array of goals and initiatives for 2015:

- Increase *Science in Autism Treatment (SIAT)* subscriber base from 11,000 to 12,500 with representation from over 100 countries.
- Create additional content for our newly launched comprehensive [website](#).
- Further expand the home pages on our website dedicated to parents with a newly-diagnosed child, media professionals, and medical professionals.
- Create a free resource booklet for parents of children newly diagnosed with autism.
- Increase our [Facebook](#) “fans” to 10,000, [Twitter](#) followers to 1,250, and increase ASAT’s presence on quality autism community blog sites.
- Increase our reach to the medical community, particularly pediatricians and family practice doctors and make information about ASAT and science-based treatment available to them.
- Increase grant request submissions to support our important work.
- Provide information regarding ASAT and autism to faculty in special education, psychology, and speech language pathology programs nationwide.
- Expand coverage of genetics, epidemiology, assessment, and biologically based treatment in our newsletter, website, and via [Facebook](#).
- More extensively tap into the wealth of experience and expertise of our [Advisory Board](#) members.
- Recruit new writers and increase the number of [Media Watch](#) responses to accurate and inaccurate portrayals of autism treatment in the media, with heightened focus on international media, biomedical advances and lifespan issues.
- Hold bimonthly board meetings by conference call to advance an aggressive 2015 strategic plan and conduct our annual, in-person board meeting in Newark, New Jersey in October to review the year and plan for 2016.

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, whom we will showcase in our Spring issue. If you are affiliated with an organization that shares ASAT’s commitment to science in the treatment of autism, please consider becoming a 2015 [Real Science, Real Hope Sponsor](#).

I wish you all the very best in 2015!

Sincerely,



David Celiberti, PhD, BCBA-D  
Executive Director & SIAT Co-Editor

ASAT

Providing Accurate, Science-Based Information. Promoting Access to Effective Treatment.

## TEAM ASAT: A Great Finish in the 2014 NYC Marathon

By Ruth Donlin, MS

On November 2, 2014, the Association for Science in Autism Treatment (ASAT) had a great team of runners successfully complete the New York City Marathon.

This International event is one of the world's greatest marathons, supported by an enthusiastic community and is pursued by 100,000 applicants every year. The 2014 New York City Marathon broke the previous year's record with 50,564 finishers, now making it the largest marathon in the world. History was also made in New York City when its one-millionth runner crossed the finish line.

The New York City Marathon attracts inspiring runners, from world-class athletes to those who face a wide-range of challenging situations. Team ASAT included Leif Albright, a behavior analyst who was thrilled to have completed his 3<sup>rd</sup> marathon helping raise funds for, and disseminate ASAT; Kaseede Jermain, a certified personal trainer who ran in honor of two young boys with autism who were her inspiration to run; and Jamie and Alex Schneider, 24-year-old identical profoundly autistic twins with limited communication skills who have now completed eight marathons.

Alex finished the race with an impressive time of 3:21:10.

The monies donated to his campaign are being used to develop materials that will be distributed to promote awareness of scientifically proven treatments for autism.

ASAT's Team Crowdrise page can be found at [www.crowdrise.com/ASAT2014NYCMarathon](http://www.crowdrise.com/ASAT2014NYCMarathon)

**A very special thank you to Team ASAT!**



## Consumer Corner

### Elopement by Children With Autism

Reviewed by Tiffany Kilby, MS, BCBA

*A considerable worry parents of children with autism may face is their child wandering away when no one is looking. It may only take a split second, but the panic this causes is something that no parent or caregiver should ever have to face. Not only is this a significant concern when in the community with the child, but even at home parents need to be eternally vigilant to guarantee that their child does not suddenly leave home unaccompanied.*

*In this issue of Consumer Corner, ASAT introduces a very useful guide to help parents and caregivers meet the ongoing challenge of keeping children with autism safe and avoiding the problematic behavior of elopement.*

Sabrina Freeman, PhD  
Consumer Corner Coordinator

**“ELOPEMENT OF CHILDREN WITH AUTISM: WHAT WE KNOW, SUCCESSFUL INTERVENTIONS, AND PRACTICAL TIPS FOR PARENTS AND CAREGIVERS”** by Heather Walker and David McAdam, New York State Association for Behavior Analysis ([NYSABA](#))

**W**hat is Elopement?

Elopement, also known as wandering or bolting, describes an individual's behavior of leaving an area without permission or supervision. Elopement puts an individual, especially one with autism or related developmental disabilities, at risk for harm.

#### Why Does Elopement Occur?

- Functional assessments (a behavior analysis method of investigating the causes of behavior) have demonstrated several reasons for elopement, which vary from person to person.

- Individuals may elope to avoid something, to obtain access to an item, activity, or person, or to engage in an intrinsically pleasurable activity such as running.
- There is no research or evidence to support the hypothesis that individuals elope as a result of physiological arousal or access to repetitive behavior.

#### Procedures Used to Effectively Decrease Elopement

- Non-contingent reinforcement (NCR) – This technique provides access to the consequences motivating elopement available to the individual on a time-based schedule in order to decrease motivation to elope. For example, if it is determined that a child elopes to access a certain food, then that food is made available at regular intervals. The result is a decrease in elopement.

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- Differential reinforcement of other behavior (DRO; AKA DRo; “zero-responding”) – This strategy delivers a preferred item after a certain period in which elopement did not occur.
- Differential reinforcement of alternative behavior (DRA) – In this scenario, the parent or professional delivers a preferred item contingent (i.e., presented in close succession to the target desired, alternative behavior) on behaviors that are alternatives to elopement. For example, walking instead of running.
- Functional communication training (FCT) – The individual is taught to communicate what they want, rather than eloping to gain access to it. For example, if an individual elopes to receive attention from others, in FCT he/she would be taught a more appropriate behavior to gain attention.
- Antecedent manipulations and environmental modifications – This technique changes the environment to decrease the likelihood of elopement or making elopement not an option.

### **Practical Tips for Parents and Caregivers (the original document has useful links)**

#### Assessment

- Keep detailed, written records of elopement.
- Consult with a behavior analyst about conducting a functional assessment and the benefits and risks of conducting a functional analysis.

#### Prevention

- Ensure that an individual with a history of eloping behavior has emergency identification on him or her at all times.

- Explore other possible safeguards that can be put in place in case elopement occurs.

#### Safety Skills

- Work with your team of teachers and service providers (e.g., behavior analysts) to teach safety skills.
- Learn CPR and First Aid.

#### Communication

- Share your contact information and information about the elopement to individuals in your neighborhood.
- Communicate with local law enforcement and emergency responders about your child and the risk of elopement

Elopement can be a very dangerous behavior for a variety of reasons, making it a crucial behavior to address and eliminate. A functional analysis, that is, finding out the reason that elopement occurs, is very important when possible, and developing a procedure based on the functional analysis increases the success rates of decreasing elopement and teaching alternative behaviors. Note: It is critical that competent, well-trained individuals with expertise in applied behavior analysis (ABA) conduct these procedures.

Download the full document here:  
[www.nysaba.org/Downloads/Elopement%20Article%20Final.pdf](http://www.nysaba.org/Downloads/Elopement%20Article%20Final.pdf)

## From the Archives

### Explaining the Decision to Use Science-Based Treatments

By David Celiberti, PhD, BCBA-D & Pamela F. Colosimo, PhD

*Parents of children with autism and professionals are often tasked with sifting through the massive amounts of facts, testimonials, and fads to determine which treatments are best. This often occurs against the backdrop of friends and family members who may offer an abundance of conflicting advice and recommendations, which however well intended, may involve non-science based treatments or inaccurate information. In this 'From the Archives' Drs. David Celiberti and Pamela Colosimo discuss the treatment decision-making process and offer resources and guidance to help families and friends understand the importance of science-based treatments.*

Patrick O'Leary, MA, BCBA  
SIAT Content Coordinator

**H**ow do I explain my decision to use science-based treatments for autism when friends and relatives often insist I try something new?

As citizens, we respect any individual's right to his or her own opinion, and specifically, for parents of children with autism to make decisions for their child regarding treatment. The late Senator Patrick Moynihan eloquently said, "Everyone is entitled to their own opinions, but not their own facts." As scientists, we believe that objective data and evidence should guide treatment options for all diseases and disorders, and autism is no exception. It is simply a matter of fact that theories, hypotheses and individual experiences do not provide adequate information to guide treatment decisions.

Sadly, the controversies surrounding vaccines have detracted attention from the most important of conversations: How do we help effectively children who are *already* diagnosed with autism? Although applied behavior analysis is the treatment for autism with the most empirical

support, we are rarely ever asked our opinion of this therapy, or if it is effective.

Every few months or so, some "new" treatment (or "repackaging" of a known treatment) will gain the attention of consumers. In an ideal world, all treatment providers would make a commitment to science and evidence-based practices, and the media would make a commitment to responsible journalism. Until these ideals become reality, those who do understand science-based treatments should do what they can to inform and educate others about the benefits of scientifically validated treatment, and the use of data to guide decision-making when assessing autism treatments.

Given the large numbers of television programs, newspaper articles, and websites putting forth "miracle cures" and "breakthroughs," it is not surprising that parents frequently receive advice and suggestions from extended family members, neighbors, and co-workers, particularly after a news item is broadcast, printed, or otherwise dis-

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seminated. Many of these individuals have the best intentions and are eager to share what they believe is “cutting edge” information about autism. In other cases, the advice is sometimes provided in a manner that comes across as critical of what you are choosing to do or not do for your child (i.e., there may be the implication that you may not be doing enough as a parent to help your child with autism).

If the information is offered by a more casual acquaintance, it may be best to simply thank him or her for their interest and concern and move on; however, such a strategy may not fare as well with individuals with whom you have a closer relationship. In these cases, you might consider sharing the following:

- There are dozens of “miracle cures” and “breakthroughs” (i.e., pseudoscience) for autism that manage to receive widespread media attention, even if they have not been proven effective;
- It is important to be critical of all available information, regardless of the source and to recognize that not all information on the internet is reliable and accurate;
- There is a large body of scientific research published in peer-reviewed journals that supports the choices that you have made;
- Numerous task forces (some are listed at the end) have looked closely and objectively at the available research and have determined that the vast majority of autism treatments lack scientific support;
- Autism treatment is a multi-million dollar industry and many treatment proponents rely heavily on sensationalism and extraordinary claims to “sell” their products;

- Interventions that are actually shown to be the most effective often receive the least amount of media attention; and
- For most other medical conditions, a provider that disregards proven intervention and uses a fringe treatment may actually be sued for malpractice (you may even consider drawing an analogy to a medical condition of particular interest to the person providing the advice).
- Of course, you may also consider addressing this matter proactively. This would involve clarifying your choices and commitment to science-based treatment to more significant family members and friends on your terms and at your convenience. It may helpful to view this tactic as a series of tiny conversations. You may even consider sharing links to websites such as [www.asatonline.org](http://www.asatonline.org), which will help your family members and friends separate the wheat from the chaff. This response would not be replete without drawing your attention to a few sections of ASAT’s website that bear relevance to this discussion.
- Summaries of Scientific Research on Interventions on Autism
- What is Evidence-Based Practice and Why Should We Care?
- Recommendations of Expert Panels and Government Task Forces

As you know, ASAT’s newsletter, *Science in Autism Treatment*, is a free publication so encourage your friends and family to sign up. It is our hope that this may help your friends and family better understand the role that science should play in the treatment of autism, the importance of parents becoming savvy consumers, the need

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for objective data to drive decision making, and how to identify pseudoscience.

Some other helpful resources:

- Interventions for Autism Spectrum Disorders: State of the evidence. (A collaboration of the Maine Department of Health and Human Services & the Maine Department of Education.)
- Report of the MADSEC Autism Task Force (2000)
- New York State Department of Health Clinical Practice Guideline for Autism and Pervasive Developmental Disorders
- National Professional Development Center's Evidence-Based Practices for Children and Youth with Autism Spectrum Disorders (ASD)
- Autism Watch
- Organization for Autism Research



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## OUR REAL SCIENCE, REAL HOPE 2015 SPONSORSHIP INITIATIVE

### 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.

- ★ The media will educate and not confuse parents by providing accurate information and asking the right questions.

- ★ All providers will be guided by science when selecting and implementing interventions and use data to demonstrate effectiveness.

### What It Means to Be a 2015 Sponsor:

ASAT's Sponsors indicate 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 2015 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 our sponsors.

If you are interested in becoming a 2015 Sponsor, please visit the sponsor page on our website:

[www.asatonline.org/direct-financial-support/](http://www.asatonline.org/direct-financial-support/)

Please click to download our Sponsorship Benefits Chart for Sustaining, Partner, Champion, benefactor, Alliance and Patron levels:

[www.asatonline.org/wp-content/uploads/2013/12/2015SponsorshipBenefits.pdf](http://www.asatonline.org/wp-content/uploads/2013/12/2015SponsorshipBenefits.pdf)

**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.

# THANK YOU 2015 SPONSORS

## Partner Level



**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 in 2009 by Dr. Carl Sundberg 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.



**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.

**Thank you to our two 2015 Partner Level Sponsors!**

**We will share our complete list of 2015 sponsors in the Spring issue.**

## Media Watch

**N**ews articles abound about autism and individuals who claim a given therapy has “cured,” or otherwise improved deficits of children diagnosed with autism. Our Media Watch initiative provides guidelines intended to help journalists think about their stories from a science-minded perspective, as well as written feedback to journalists and editors about their presentation of autism and autism treatment in the media. You can access over 100 letters written by ASAT board members and collaborators on our [website](#). Below, we summarized the latest ones.

**Barbara Jamison, BA, Parent Board Member  
Media Watch Coordinator**

**ASAT Responds to Ottawacitizen.com’s “The Autism Story from Another Point of View”** (August 8, 2014) If a child with autism fails to be appropriately diagnosed at an early age...he or she will suffer a truncated prognosis and may not realize his or her fullest potential.

<http://goo.gl/ypwNzf>

**ASAT Responds to Newsweek’s “Autism Therapy in 6-Month Old Babies Eliminates Symptoms in Limited Study”** (September 25, 2014) ASAT commends journalist Zoë Schlanger for her balanced reporting of a new study involving 6-month old infants.

<http://goo.gl/FoqWMB>

**ASAT Responds to TheAtlantic.com’s “1 in 68 Children Now Has a Diagnosis of Autism Spectrum Disorder-Why?”** (October 28, 2014) Ensuring that the professionals who diagnose autism spectrum disorders have specialized training in the field, as well as knowledge of typical child development, is key.

<http://goo.gl/qKK8qm>

**ASAT Responds to CNN.com’s “Using tablets to reach kids with autism”** (November 6, 2014) Ubiquitous tech—e.g., the tablet—how does it compare to traditional teaching methods.

<http://goo.gl/CwU7oO>

**ASAT Responds to NJ.com’s “Hoboken educator named New Jersey’s State Teacher of the Year”** (December 23, 2014) Kudos to journalist Kathryn Brenzel for highlighting special ed teacher Mark Mautone, recently recognized as New Jersey’s State Teacher of the Year for 2014.

<http://goo.gl/pl9rnG>

**ASAT Responds to ABC.net.au’s “Hope for autistic teens: How Applied Behaviour Analysis helped Ian Rogerson’s son Jack overturn bleak prognosis”** (January 8, 2015) Helen Grasswill’s reporting stands out in giving an accurate picture of the process of ABA, from the pragmatic starting point to the natural and generalized culmination of treatment.

<http://goo.gl/pPbr4V>

**ASAT Responds to Theglobeandmail.com’s “Facing down autism: The unconventional (and somewhat controversial) therapy that’s led to recovery”** (January 12, 2015) Reporter Lee Marshall delivers a misleading message in her story about a method sorely lacking empirical research.

<http://goo.gl/ryiQ7T>

Send us feedback or suggest articles that deserve a Media Watch letter at [mediawatch@asatonline.org](mailto:mediawatch@asatonline.org)

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## Focus on Science

# Can Scientists Prove That a Treatment Does Not Work? And... Is Bigfoot Real?

By Daniel W. Mruzek, PhD, BCBA-D,  
Keith Gordon, BA &  
Eric Larsson, PhD, LP, BCBA-D

The scientific method is a wonderfully powerful tool for investigating potential treatments for individuals with autism spectrum disorder (ASD). By using strategies such as randomization of participants, “blinded” raters, and standardized outcome measures, researchers help to elevate our evaluations of potential ASD treatments above the limitations of mere conjecture and personal testimony. For example, behavioral interventions, such as early intensive behavioral intervention, have been established as effective interventions for young children with ASD (though much remains to be discovered regarding how to maximize outcome for the individual child; Orinstein, et al., 2014, Peters-Scheffer, Didden, Korzilius, & Sturmey, 2011).

### Not to Be a Wet Blanket, But...

Can science be used to prove that an intervention is *not* effective? We were reminded of this question recently when we reviewed a well-controlled study on the use of weighted blankets, conducted by Gringas and colleagues (Gringas, Green, Wright, Rush, Sparrowhawk, Pratt, Allgar, et al., 2014). The researchers set out to investigate the effectiveness of a common intervention for individuals with ASD, the use weighted blankets in treating sleep problems. To accomplish this, they conducted a randomized, placebo-controlled crossover design study. This is a study in which participants are randomly assigned to an experimental condition (and receive the active treat-

ment) or a comparison condition (and receive a placebo or inactive treatment). Then, at a predetermined point in time, each participant is switched to the other group. At each stage, key measures of treatment outcome are collected. In this study, 73 children and youth aged between 5 – 16 years with severe sleeping problems were randomized to either a weighted blanket condition or to an otherwise identical blanket of usual weight at bedtime. Each type of blanket was used for two weeks prior to the crossover to the other condition. The researchers found no differences in total sleep time, as measured by electronic monitoring of movement while in bed (i.e., actigraphy) during each two-week period. Furthermore, the researchers found no group differences in total sleep time, how long it took participants to fall asleep or the proportion of time spent in bed asleep across the two conditions (i.e., parent reports in daily “sleep diaries” and parent questionnaires). They concluded that the weighted blanket intervention in their study was “no more effective than ...(a regular blanket) at improving TST (total sleep time) or any other commonly measured parameter of sleep quantity or quality” (p. 303).

### What’s This Got to Do With Proving That a Treatment Is Not Effective?

Does this study *prove* that weighted blanket in-

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intervention is not effective for the population of children with ASD? Well, in a word, *no*. However, that is only part of the story. In one sense, this is a question of *generalizability* – the degree to which results from a study are relevant for people other than the participants in the study (e.g., other individuals with ASD). In this instance, we are left to conjecture about individuals with ASD who are younger or older than the 5 – 17 age range, have unique or at least different sleep or related difficulties. Perhaps there are some children who have very specific and rare disorders who were not adequately sampled in this study. And, of course, the results of this one study may be a fluke, and other scientists may not replicate these findings. One might also quibble by saying that perhaps the measurement system was inadequate to detect the effect – a measurement system must be shown to be able to detect an effect before its failure can be taken as useful data. Thankfully, treatment studies do not exist in isolation; rather, each study is part of a broader record of scientific inquiry. The results of any one study can only be interpreted in the context of findings from other studies. In the case of weighted blankets, it is notable that there is virtually no scientific evidence that they are helpful in promoting sleep; therefore, it is reasonable to suspect- but not prove- that weighted blankets are ineffective in helping children with ASD get a good night's rest.

### **OK, But What About Bigfoot?**

Stepping beyond the question of generalizability, there is a more fundamental point to be made, and this brings us to Bigfoot: it is virtually impossible to prove that something – *anything* – does **not** exist. How would you, dear reader, prove that we did not see a Bigfoot in our yards last night? You might point out that it is highly unlikely and that we must have each seen something else, like a neighbor getting firewood. But we could simply say, “you might not believe us,

but we saw Bigfoot!” You may point out that we should have taken a picture, but, of course, we may simply report that, “by the time I got my iPhone, he was gone!” (or one of us would have a grainy picture that looks a bit like a big shrub). In other words, proving that something does *not* exist- whether it is Bigfoot or the benefits of a weighted blanket- is a maddening exercise – and, really, one to be avoided. Yet, when marketers of ASD interventions lean on the fact that there is no evidence to suggest that their product does not work, they are asking you to engage in this exercise. That is why we assert that it is incumbent upon them to prove that their product *does* work. This is the standard to keep in mind when looking at treatment evidence.

### **How Does This Relate to My Family Member's ASD Intervention?**

Well, thankfully, it is a standard of scientific practice that proponents of proposed ASD interventions prove that they *are* effective. If there is no scientific record of treatment effectiveness, the practitioner (or marketer) should be prepared to demonstrate how they would evaluate possible effectiveness for your family member if their treatment were to be employed (e.g., by using single subject design methodology to measure change in relevant behavior). As consumers of ASD interventions, families can maintain a healthy skepticism – a cornerstone of the scientific method- when confronted with potential ASD treatments, whether they are behavioral, biological or “sensory integrative.”

### **That's Real Money!**

By the way, a quick Google search using the search term “weighted blanket” reveals the efforts of several companies in the weighted blanket business. For example, one marketer of weighted blankets ([www.sensorygoods.com](http://www.sensorygoods.com)) price their blankets between 56.99 to at least 190.99 US dol-

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lars (with additional costs for special features but, thankfully, free postage and handling). They report that their blankets “continue to change lives by giving families and individuals the sleep they desire and deserve” and “regulate a normal sleeping pattern as well as calm anxiety and stress.” As consumers with limited financial resources, what might be an appropriate first response to these marketers? We recommend, “Prove it.”

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## Shout Outs, Accolades, and Appreciations!

By Kerry Ann Conde, MS, BCBA

ASAT’s mission is to promote “safe, effective, science-based treatments for people with autism through: the dissemination of accurate, timely, and scientifically-sound information; advocacy for the use of scientific methods to guide treatment; and the countering of unsubstantiated, inaccurate and false information about autism and its treatment.” With this in mind, we are striving to reach 12,000 subscribers by the end of the year. We are currently at 10,518 subscribers. **Help us reach 12,000** by signing up here: <http://asatonline.org/newsletters/signup> and liking our [Facebook](http://www.facebook.com/ASATonline) page [www.facebook.com/ASATonline](http://www.facebook.com/ASATonline).

If you are a supervisor or administrator, please consider passing along a [sign-up sheet](#) to help us recruit new subscribers and email to [newsletter@asatonline.org](mailto:newsletter@asatonline.org) or mail to ASAT at PO Box 1447 Hoboken, NJ 07030.

In this issue we recognize individuals and organizations who actively support our mission. Our Shout Out goes to:

- ★ **Tracie Lindbald, Katie Mann, and Lindsay Gomes** for distributing ASAT fliers to almost 200 attendees at the Ontario Association for Behavior Analysis recruiting and information sessions.
- ★ **Eric Larsson** of The Lovaas Institute for Early Intervention who recruited 116 new “likes” for ASAT’s Facebook page.

*Please let us know about initiatives you have undertaken to support ASAT by emailing us at [info@asatonline.org](mailto:info@asatonline.org).*

## Research Synopses

*Our two article summaries are on an evaluation of parent training interventions and an intervention for teaching children with autism spectrum disorder, Rapid Prompting Method. This first article summary is an evaluation of two parent training interventions, Caregiver-Mediated Module and the Caregiver Education Model, targeting increases in joint attention, play skills, and engagement with caregivers. The second summary is of an article that evaluated the effectiveness of Rapid Prompting Method, an intervention that aims to increase the child's attention to communicative tasks by providing instruction at a pace that matches the child's rate of repetitive and stereotypic behaviors.*

Sharon A. Reeve, PhD, BCBA-D  
Research Synopses Coordinator

### **Harnessing Repetitive Behaviors to Engage Attention and Learning in a Novel Therapy for Autism: An Exploratory Analysis**

**Reviewed by: Kathleen Moran, Caldwell University**

Chen, G.M., Yoder, K.J., Ganzel, B.L., Goodwin, M.S., & Belmonte, M.K. (2012). Harnessing repetitive behaviors to engage attention and learning in a novel therapy for autism: An exploratory analysis. *Frontiers in Psychology*, 3, 1-16.

#### **Why this topic?**

One of the biggest deficits in children with autism is communication. There is a growing body of research investigating interventions using different modalities to increase communication. In the current study, the investigators evaluated one such intervention, the rapid prompting method (RPM). This intervention, which was developed by a parent of a child with autism, aims to increase the child's attention to communicative tasks by providing instruction at a pace that matches the child's rate of repetitive and stereotypic behaviors. In addition, it emphasizes building new communication skills by using sensory prompts such as hand-over-hand guidance and modified instructional materials (e.g., pencils at-

tached to the hand with a rubber band and stencils taped onto a piece of paper to improve the accuracy of written responses). Intervention proceeds from simple to more complex skills (e.g., expanding the array of possible written responses), based on the instructor's impression of the child's progress. When the child engages in repetitive behavior, he or she is quickly redirected back to the communicative task.

#### **What did the researcher do?**

Nine children who met criteria for autism and had a limited verbal repertoire participated in this study. All children received RPM for four to eight sessions. Sessions were 60 minutes in length and delivered by the developer of the program. Prompts were individualized for each child based on the instructor's impression of the child's preferred mode of sensory perception (i.e., auditory, visual, tactile).

Data were collected on (1) the therapist's requests and use of prompts, (2) the child's frequency of responding appropriately and successfully to requests and the extent to which prompting was required, and (3) the child's frequency of eye

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gaze, off-task activity, and repetitive and stereotypic behaviors.

### **What did the researchers find?**

The researchers found that the number of multiple-choice options increased over the course of therapy, but the frequency of correct responding remained stable over time. They also found that repetitive and stereotypic behaviors decreased as therapy progressed and as engaged attention increased. However, prompting from a therapist did not decrease these behaviors, but instead resulted in a slight increase.

### **What were the strengths and limitations of the study? What do the results mean?**

Overall, the study obtained mixed findings on the efficacy of RPM. Moreover, the study had many major limitations including a small sample size, absence of a control group or comparison to other interventions, lack of objective criteria for decisions to increase complexity of tasks, and unsystematic selection of prompts. Generalization of skills was not assessed. Because of these limitations, the study does not support conclusions about whether or not RPM is efficacious.

## **Caregiver-mediated intervention for low-resourced preschoolers with autism**

**Reviewed by: Casey L. Nottingham,  
Caldwell University**

Kasari, C., Lawton, K., Shih, W., Barker, T. V., Landa, R., Lord, C.,...Senturk, D. (2014). Caregiver-mediated intervention for low-resourced preschoolers with autism: An RCT. *Pediatrics*. doi: 54.5986/peds.6457-3229

### **Why research this topic?**

Previous research evaluating interventions targeting behaviors characteristic of autism spectrum

disorders (ASDs) may underrepresent low-income families. A number of barriers (e.g., location, travel expenses, work schedules) may make it difficult for caregivers in these families to participate in research and implement interventions. The purpose of the current study was to compare two interventions that were designed to be more accessible to low-income caregivers. Both interventions focused on improving joint attention, play skills, and engagement with caregivers.

### **What did the researchers do?**

The researchers in this study compared participants who were randomly placed into one of two intervention groups: the Caregiver-Mediated Module or the Caregiver Education Model. Participants were between the ages of 2 and 5 years, were diagnosed with ASD, and were classified as low-resourced based on having a primary caregiver who (a) had a high school diploma or lower, (b) was unemployed, or (c) was receiving government assistance (e.g., Medicaid). 147 families were initially recruited for participation and 112 of these families entered the intervention phase of the study. The researchers randomly assigned families to one of the two treatment conditions. In both conditions, the intervention targeted social engagement, play skills, and other daily activities in the context of child-led play activities by using Caregiver-Mediated Module or Caregiver Education Model. Caregiver-Mediated Module is a treatment model in which caregivers were coached by the researchers to provide intervention to their children, based on a manualized treatment plan. In the Caregiver-Mediated Module group, the intervention took place in two, 1-hour treatment sessions each week for 12 weeks. During these sessions, the researchers directly coached caregivers as they provided intervention to the child. The researchers taught new skills each week to the caregivers. Caregiver Education Model is a treatment model in which caregivers

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are also coached to provide intervention to their children, but in small group settings and without their children being present. In the Caregiver Education Model group, caregivers attended 2-hour group sessions each week without the child present; these sessions covered the same content as Caregiver-Mediated Module sessions and were also based on a manualized treatment plan. The researchers made an effort to make these treatment plans accessible to the families by holding sessions in the families' homes and neighborhoods and by working within the families' preferred dates and times, and in their preferred language.

### **What did the researchers find?**

The researchers looked at changes in child engagement, joint attention, and play skills following the interventions and compared changes in these skills between the two intervention groups. For engagement and joint attention, they found that both groups improved, but that the improvements in the Caregiver-Mediated Module group surpassed the improvements in the Caregiver Education Model group. These improvements were maintained when assessed again three months later. For play skills, the researchers found that children in neither group showed improvements in play skills following intervention.

### **What are the strengths and limitations of the study?**

One strength of this study was that the researchers included participants and families who have been previously underrepresented in research on interventions for children with ASD. Additionally, the researchers evaluated interventions with caregivers themselves providing intervention to the children. Because caregivers spend extended time with their children, greater improvements may be possible if caregivers are effectively trained to provide intervention. Another strength of this study was that intervention occurred in

the participants' homes rather than in clinical settings and targeted specific skill deficits that are typically characteristic of ASDs. A final strength of this study is that the characteristics of the two groups were similar with regard to the participants' ages, gender, ethnicity, history of receiving intervention prior to the study, as well as caregivers' education level, income, and receipt of government assistance.

Several limitations to the study and the findings also exist. Despite the researchers' attempts to increase the accessibility of the treatment, 35 families dropped out before participating in coaching, although almost all families who started intervention ultimately completed the study. It would be important to understand the reasons for the high dropout rate at the beginning of the study and to identify strategies that would reduce this problem. For example, families may have dropped out of the study because they did not find the treatments acceptable, were unable to travel to group sessions, or were unable to schedule time to participate. Additionally, little improvements were found in play skills with these interventions, suggesting a need for additional work on how to promote play skills children with ASD. Also, data were not obtained on caregivers continuing to provide intervention on their own and whether they could apply the intervention techniques to teach other skills to their children.

### **What do the results mean?**

Overall, the findings suggest that, if appropriately designed, caregiver-mediated intervention can be effective for low-resourced caregivers and their children, particularly if the intervention involves a "hands-on" approach in which professionals provide direct coaching to caregivers as they teach their children.

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