

Hidden in plain sight: the role of setting events in the treatment of autism

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Dean Alexander,¹ Ron Frank²¹Therapist, USA²Homeopathy practitioner, Hahnemann College of Homeopathy, UK**Correspondence:** Dean Alexander, Ph. D, Therapist, USA, Tel (760)-249-3938, Email deanalexanderphd@gmail.com**Received:** January 15, 2025 | **Published:** January 31, 2025

Introduction

This article is not a case study - though one case is featured prominently: Andrew. This article is also not advocacy for only one approach to treatment – though one approach is featured predominantly: probiotics. Rather this article is reconsideration about how we as practitioners go about delivering treatment to youngsters with Autism Spectrum Disorder (ASD). The focus here is on *order* of services to “boost” efficacy.

When Dean was a graduate student in the 1970s, the window of opportunity for change in youngsters with autism closed at six years of age. Somewhat later the age was raised to nine. But at least until now, 11 years of age has remained outside of that window – especially for children with early onset autism. This disorder is characterized by little or no eye contact and no inclination toward bonding with mother, siblings, or friends, often in conjunction with little or no verbalization, and high rates of repetitive motor patterns of self-stimulation and tantrums. Such treatment resistant “non-responders” were no doubt part of the 53% of the unsuccessful treatment group in the landmark Young Autism Project, headed by Drs. Ivar Lovaas at UCLA,¹ Laura Schreibman at the Claremont Colleges; and Robert Koegel at UC Santa Barbara. In spite of his giant step forward, the failure of the majority weighed on Dr. Lovaas like an anchor (personal communication), and he hoped that a biological/organic course correction might be realized some day through nutrition, pharmacy, or surgery.²

Andrew (fictitious name) fit the initial diagnosis and ongoing profile of early onset autism when Ron Frank introduced homeopathic treatment at my request.³ Andrew, then age 11, was in a Special Education class with more than two years of ABA provided by a skilled, experienced therapist. Andrew had made no discernible clinical progress at home or at school. I could not elicit eye contact even with the inducement of chicken nuggets, the almost exclusive staple of his diet. Yet after several months of homeopathy, Andrew began to sit in large groups of students at school, cope with stimulation around him, and produce first sounds and then words: “hi, bye, again, go now.” Pointing and nodding facilitated communication. Last year Andrew, now a teenager, had a “blast” at a school prom, with all of the attendant loud noises and crowding. Smiling broadly, he was photographed with a lady on his arm, and developed a reputation for flirting at school. Andrew, now age 17, continues to make strides reported monthly by his parents. WHAT WENT RIGHT??? A ripe possibility for reverse engineering awaiting additional empirical support?

A biological setting event for environmental modification

Dr. Frank and I believe that homeopathic remedies began to alter a severely compromised dysbiotic gut (microbiome), “ousting” pathogens and producing a much improved balance between healthy and harmful bacteria. This in turn would be expected to benefit the critical gut-brain connection largely responsible for cognition and

behavior. A systemic “boost.” The homeopathic regimen included at various times hyper-diluted, safe dosages of Calcium Carbonate, Cina, and Coffea Cruda. Dr. Frank also added alfalfa, Cod Liver Oil, and probiotics to stimulate a healthy flora, heal the gut, and improve metabolism of minerals. Not only did we observe improvement on all behavioral indicators for Andrew, but also on organic/sensory-based patterns such as shampoo and bar soap pica, now long gone, and a marked expansion of dietary choices associated with Calc Carb and dietary supplements. Retrospectively, we speculate that there were “other Andrews” in the 53% of the Young Autism Project non-responders, who lacked such a biological setting event, even with 40 hours weekly of behavioral services.

Homeopathy is by no means intended to be exclusive as biological modification, but rather one possible course correction that unlocks the door for ensuing environmental stimulation such as Special Education. Changes in diet,⁴ vitamin/mineral supplementation,⁵ or Fecal Microbiome Therapy (Kang et al., 2017)⁶ (though still somewhat controversial) may also set the occasion for the changes we observed. At this juncture Dr. Frank and I throw our initial support to more standardized intervention through probiotics since a homeopathic approach is very difficult to manualize. More later.

Probiotics, the ingestion of live healthful bacteria, can be built around safe, well-researched, robust probiotics such as Lactobacillus acidophilus (LA-5) and Bifidobacterium Bifidum/Lactis (BB-12). Beta 1.3/1.6 Glucans can provide enhanced probiotic supplementation for dangerous, persistent infections such as Clostridium Difficile. A thorough GI work-up can guide which strains of Lactobacillus or other healthful bacteria may yield the greatest “precision probiotics” benefit.

A proposed mechanism of action is the recolonization of the intestinal membrane by adhering to human mucosal cells. Displace harmful bacteria while establishing new, “friendly” bacterial communities. Select probiotic strains are documented to produce antimicrobial substances active against pathogens including *Salmonella* species, *Clostridium*, *E. coli*, and others.⁷ The new line of defense is clinically effective controlling a range of GI disorders, including functional bowel problems. A key to improving gut health/healing is enhancing the bioaccessibility/utilization of nutrients.

Recent research cited in the *Autism Research Review International* (ARRI)⁸ likewise supports the impact of probiotics for individuals with ASD. As with Dr. Frank’s homeopathic remedies, a meta-analysis of probiotics (eight studies, 318 samples, age range 1.5 – 20 years) conferred significant benefit for clients after three months of use. Similarly, gains were observed for participants *above ten years of age*, as well as below. *Personalized* treatment approaches were again also recommended.⁸

More good news. Use of *Bacteroides fragilis* for four months for children with ASD, especially those under four years of age, resulted in improved scores on several tests geared to autism (Autism Behavior Checklist; Autism Rating Scale (CARS); Social Responsiveness Scale), as well as measures of GI symptoms including diarrhea, constipation, abdominal pain, reflux, and indigestion (GSRs).⁹ Underscoring this possible role for supplementation, other researchers have reported significantly high correlations between GI symptomatology and autism.^{10–13} Finally, the Chu-Hui group noted a significant post-intervention increase in abundance in healthful bifidobacterium. In sum, Dr. Frank and I hypothesize that probiotics may effectively open the door for environmental interventions such as Applied Behavior Analysis,¹⁴ Pivotal Response Training,¹⁵ the Denver Project,¹⁶ and Sensory Motor Integration therapy.¹⁷

Behavioral setting events for biological interventions

It is common, if not universal practice for therapists treating anxiety, depression, or other disorders to recommend exercise, time outdoors, or other forms of activity or stimulation as an initial part of a therapy regimen. Exercise is one component of modulatory therapy, aiming to manipulate the microbiome in order to improve gut health and well-being.¹⁸ In parallel, environmental modifications may importantly set the stage for biological changes by increasing bioaccessibility/utilization of nutrients. Dr. Frank comments:

Healing is a relationship with Nature. Relationships are not one sided. Relationships are an intelligent and creative design for mutual support. If a body builder wishes to create more muscle, he/she needs both a biological setting event such as increasing protein in their diet with improved digestive ability as well as a behavioral setting event such as using a well-equipped gym. Either event alone may help in a very limited fashion or be unsuccessful. “Use it or lose it.” Both biological and behavioral together creates dramatic results which are easily recognized in magazines showing pictures of our star performers...

Use or behavior tells Nature where to put our resources. If we work out only the right arm, then muscle builds unevenly leaving the left arm weaker. Resources are utilized and built where there is need and use.

If we want specific changes, then we need to promote in a balanced fashion both the biological resources (biological setting events) and behavioral or environmental setting events together, and where to utilize them or results are limited and possibly unsuccessful.

Both setting events (biological and behavioral) are a creative relationship design. Need will always be individualized for the muscles, bacteria, minerals, vitamins, and behaviors wishing to be developed within each specific child or adult. Some may have enough biologic resources and only need behavioral intervention. Some may have behavioral response ability and only need biological intervention. Yet, both being improved can create greater results all around...and most will benefit from both like any body builder benefits from both.

A final consideration. This article has highlighted probiotics as a front-line biological modification. Probiotics were part of – perhaps 20% - of Dr. Frank’s homeopathic plan, but to date there is not independent assessment of other remedies in Andrew’s improvement: Cod Liver Oil as a healthy fatty acid transporting minerals in the body; alfalfa loaded with vitamins and minerals available in tincture; Coffea Cruda for improved sleep, and, together with Cina checking self-stimulation, especially during acute events. In this light we may appropriately ask which element(s) or combination of elements led to the cessation of pica. Importantly, this raises some tension between an individualized approach to treatment and any attempt to standardize. One path forward is to employ the more generalized approach first, such as probiotics. Physician/dietician-recommended changes in diet and/or supplementation can be added stepwise if warranted. If results are still unsuccessful or less than successful, in accordance with individual differences, seek out homeopathic services from a Doctor of Homeopathic Medicine. Move from a more standardized approach to a more individualized approach pending results. We wish you all the best.

Conclusion

Dr. Frank and I hypothesize a two-way street for the role setting events may play in autism treatment and recovery. Historically, therapy choice has remained on one side of the street or the other – without recognizing the potential of setting events or combining biological and behavioral approaches into a synergistic model. Biological events may first open the door for environmental interventions if we “till the soil before we plant the seeds.” Environmental modifications may similarly unlock bioaccessibility/utilization for biological interventions. Introducing both biological and behavioral modifications in combination¹⁹ may certainly be the best option. Giving the body all critical resources at our disposal and then trusting the body to make optimal use of them is indeed worth consideration and further study. We throw down the gauntlet.

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Conflicts of interest

The authors declare that they have no conflict of interest.

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