

***Evolving Ethics In Practice:
Team Processes, Communication and
Coordination of Services***

*Evidence-based Practice, Interacting with Other
Professionals, Alternative/Fad Treatments, and
Safe Use of Social Media*

Presented at The National Autism Conference

Penn State University

August 3, 2017

Thomas Freeman, M.S., BCBA

ABA Technologies Inc. & Florida Institute of Technology

Our Topics Today

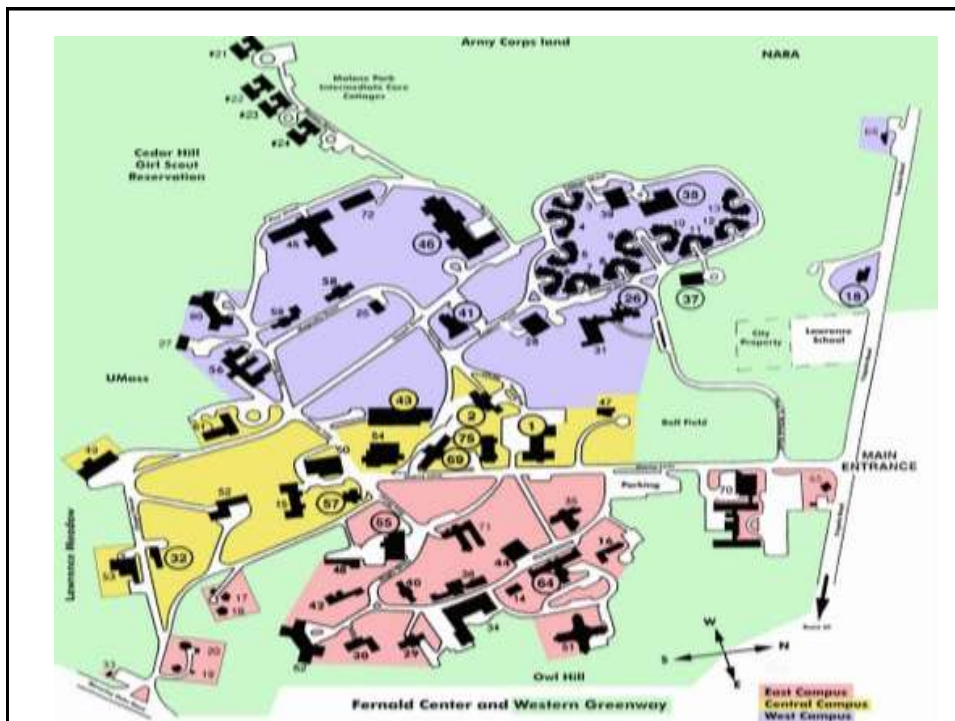
- ☐ A brief case-study in the history of treatment for persons with developmental disabilities
- ☐ Evolution in Ethical Standards
- ☐ Evidence-Based Practice
- ☐ Working on an Interdisciplinary team

Our Topics Today

- ☐ Evaluating “alternative treatments” in practice
- ☐ Avoiding some pitfalls for behavior analysts using social media use
- ☐ Communicating with others, both professionals and non-professionals

Some History of the Treatment of Individuals with Developmental and Socialization Problems

The Fernald State School



A Federal Consent Decree

- ❑ Case opened in 1972: Judge Tauro
- ❑ New therapeutic treatments including behavior analysis were mandated
- ❑ Case was closed in 1993: Tauro stated that Fernald had become a model of care “second to none”
- ❑ Closed on November 29, 2014





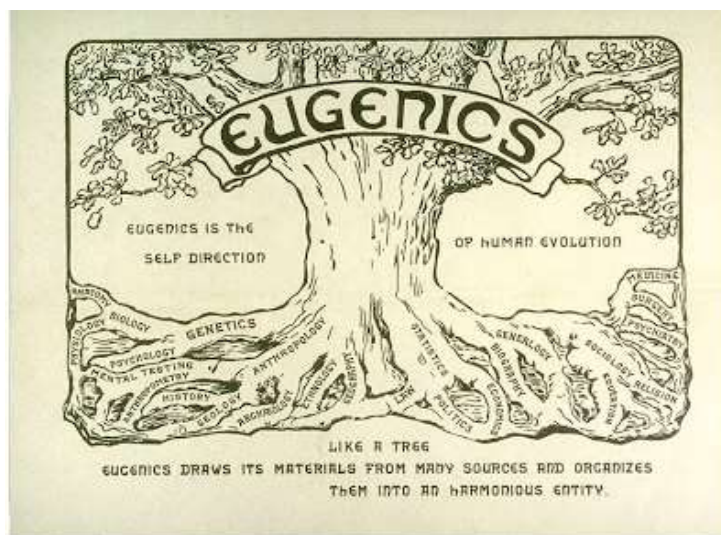
A Psychologist

- ❑ 1980: I became an “Assistant Staff Psychologist” (civil service exam!)
- ❑ 1982: Promoted to Staff Psychologist
- ❑ Training ground for interdisciplinary teamwork and collaboration

The W. E. Fernald State School

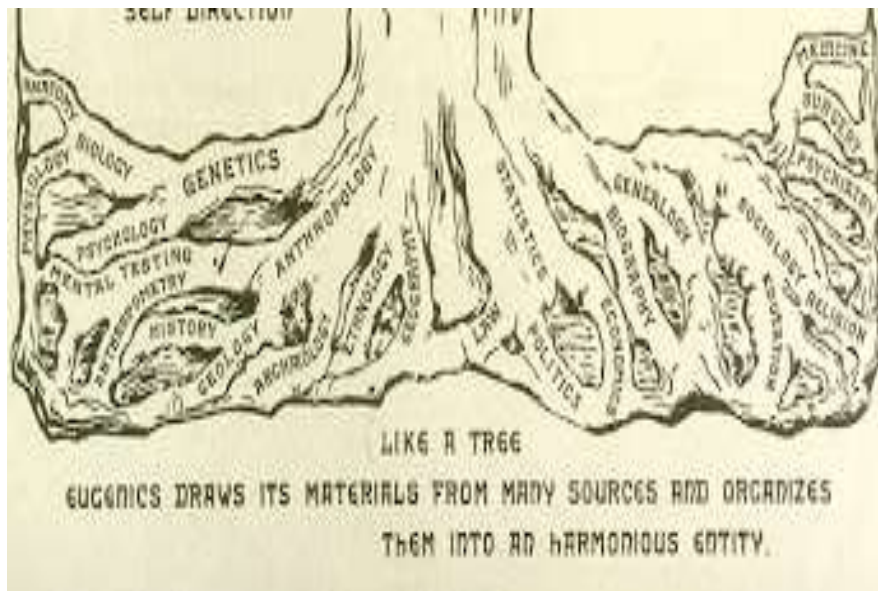
- ❑ Founded by Samuel Howe in 1848
 - ❑ Later named “The Massachusetts School for the Feeble-Minded”
- ❑ In 1887, Walter E. Fernald became Superintendent. The facility was renamed for him in 1925, a year after his death
- ❑ He had written of “the burden of the feeble-minded” and previously characterized Fernald residents as, “a parasitic predatory class”.

An Early Proponent, but Later Rejected The Idea of Forced Sterilization



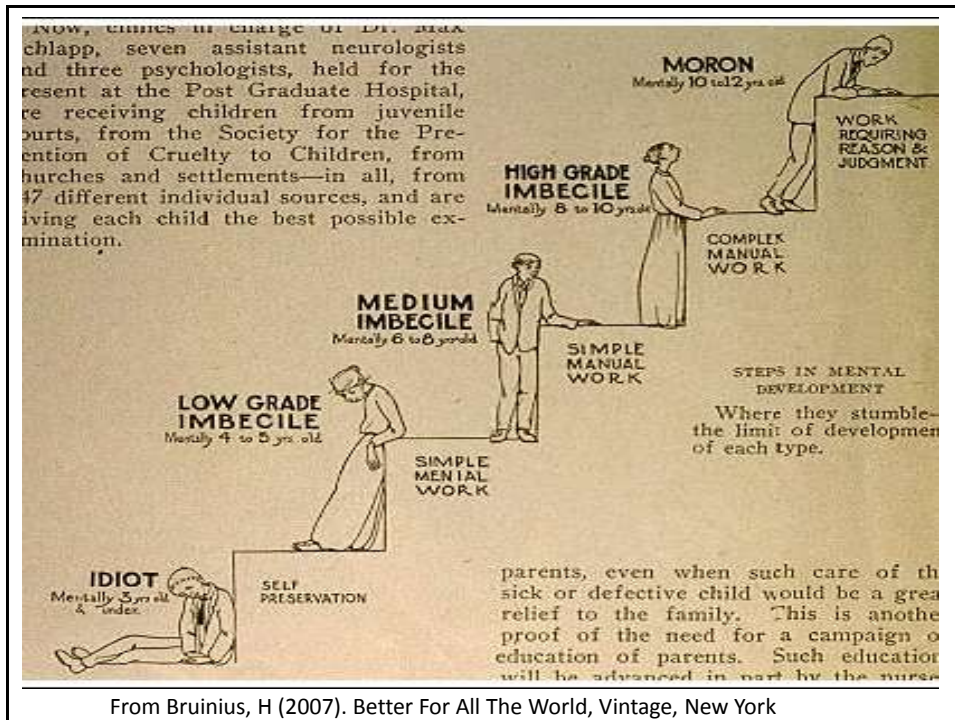
American Philosophical Society: Non Commercial educational use only: Retrieved 7/27/17

A Closer Look



Henry Goddard: 1866-1957

- ❑ Psychologist, early IQ test enthusiast, and eugenicist
- ❑ In 1910, at the Am. Assoc. for the Study of the Feeble-Minded, he proposed the classification of people based on IQ test results:
 - Moron, Imbecile, and Idiot.
 - He stated that morons were “unfit for society” and should be institutionalized, sterilized, or both



Pennhurst in Pennsylvania



Retrieved from Imgarcade.com, 07/17/17

Eugenics

- ❑ A term coined by Francis Galton in 1883: the study of “the conditions under which men of high type are produced” (Galton, Human Faculty, 1883/2004, p.30)
- ❑ Oliver Wendell Holmes, 1927, in Buck v. Bell upheld the forced sterilization of Claire Buck, an 18-year old woman living in the Virginia State Colony for Epileptics and Feeble-minded, stating: “Three generations of imbeciles are enough.”

Holmes' Ruling:

- ❑ “It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit for continuing their kind.”
- ❑ Following this ruling, well over 50,000 forced sterilizations were done in US
- ❑ Holmes words, and US state sterilization laws, were cited by Nazi war criminals at Nuremberg as sources of inspiration.

Skinner V. State of Oklahoma, 1947

- ❑ Oklahoma's Habitual Criminal Sterilization Act of 1935
- ❑ Jack Skinner, convicted of
 - First, stealing chickens
 - 2 separate armed robberies
- ❑ Punitive sterilization was ended, but..
- ❑ Oregon's Eugenics law passed in 1917. Board of Eugenics abolished in

October, 1983

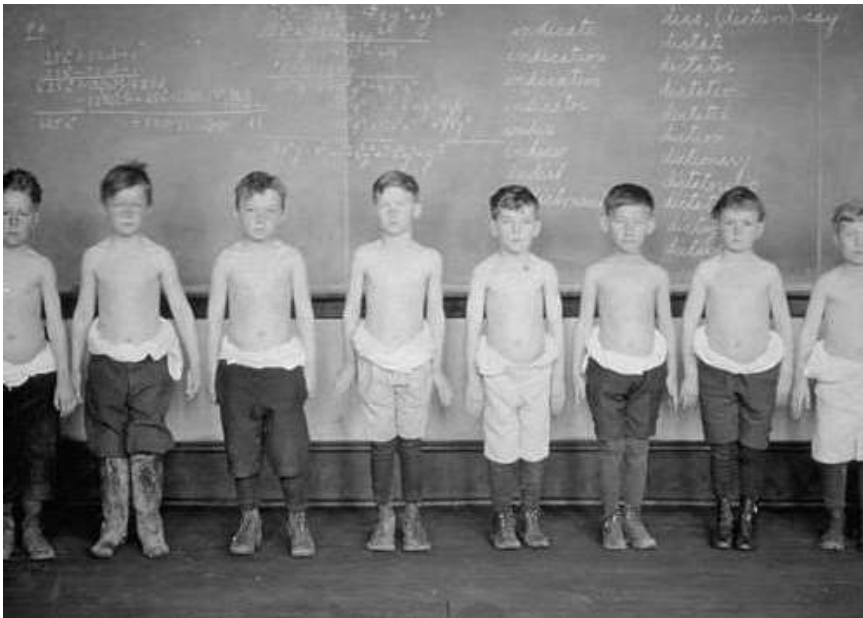
Between 1/87 and 6/88, a non-profit contractor in Portland shredded hundreds of documents on the Board's work. Their final 20 years of meeting minutes were destroyed. But copies of minutes from nearly 2000 earlier meetings detailed orders for "castrations and ovaries removed" from people for whom "procreation would produce children with an inherited tendency to feeble-mindedness, insanity, epilepsy, criminality, or degeneracy." " – Julie Sullivan, The Portland Oregonian, 11/15/02

Back to Fernald



The "Boys Dorm"





The Science Club



You Can Participate in Science!

- ☐ Harvard and MIT Scientists
 - From 1946 – 1953:
- ☐ Conducted 2 experiments to study absorption of nutrients in human beings
 - Iron
 - Calcium

The Two “Special Projects”

- ❑ Experiment 1: Adolescent boys received “Iron supplement shots”
 - 17 subjects
- ❑ Experiment 2: “Iron-enriched cereal” and “calcium-enriched” milk
 - 57 subjects

The “Suppliment”

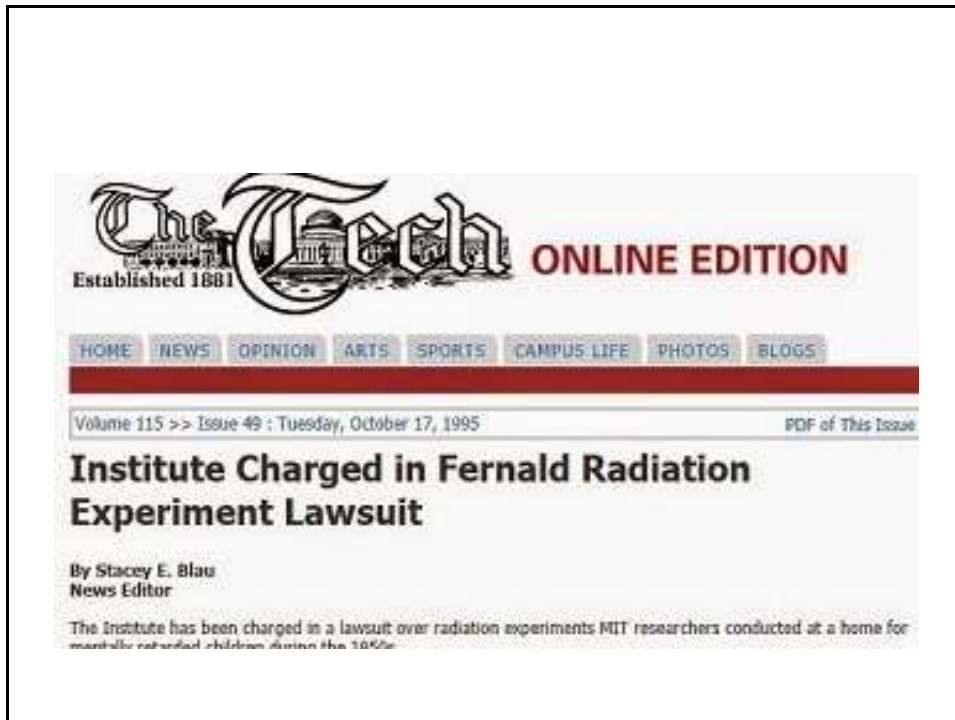
- ❑ Exp. 1: “Iron supplement shots” contained *radioisotopes of iron*

The “Enrichment”

- ❑ Exp. 1: “Iron supplement shots” contained *radioisotopes of iron*
- ❑ Exp. 2: “Calcium-enriched” milk contained *radioactive calcium*

Measurement!

- ❑ **Dependent variable:** **Radiation levels** in stool and blood samples
- ❑ Experimenters later claimed that the maximum exposure was 330 millirems
 - Said to equal 1yr background radiation in Denver



J. Clinical Invest. 1956 Jan 35 (1): (78-88)

STUDIES IN CALCIUM METABOLISM. THE FATE OF INTRA- VENOUSLY INJECTED RADIOCALCIUM IN HUMAN BEINGS ^{1, 2, 3}

By FELIX BRONNER,⁴ ROBERT S. HARRIS, CONSTANTINE J. MALETSKOS, AND
CLEMENS E. BENDA

(From the Department of Food Technology and the Department of Physics, Massachusetts In-
stitute of Technology, Cambridge, Mass., and the Department of Neuropsychiatry,
Harvard Medical School, Boston, Mass., and the Walter E. Fernald State
School, Waverly, Mass.)

(Submitted for publication July 19, 1954; accepted September 21, 1955)

In the course of studies on the effect of phytates on calcium uptake in man (1) it became necessary to determine the extent to which endogenous calcium in the feces might contribute to the calcium balance. Although this point has been studied by several investigators (2-5), there is considerable disagreement on the significance of the fecal route for calcium excretion in man. Thus Malm

carried out in animals (7-10), but few such data are available for man (11-13).

MATERIAL, DESIGN AND METHODS

Subjects. Nine adolescent boys, institutionalized for mental inadequacy, but otherwise normal,⁶ served in the first study (Experiments A and B). In a later experiment (Experiment C), one individual (No. 57) was se-

STUDIES IN CALCIUM METABOLISM. THE FATE OF INTRA-
VENOUSLY INJECTED RADIOCALCIUM IN HUMAN
BEINGS^{1, 2, 3}

By FELIX BRONNER,⁴ ROBERT S. HARRIS, CONSTANTINE J. MALETSKOS, AND
CLEMENS E. BENDA

(From the Department of Food Technology and the Department of Physics, Massachusetts Institute of Technology, Cambridge, Mass., and the Department of Neuropsychiatry, Harvard Medical School, Boston, Mass., and the Walter E. Fernald State School, Waverly, Mass.)

(Submitted for publication July 19, 1954; accepted September 21, 1955)

“Consent”

- ❑ Dr. M. J. Farrell, superintendent, sent a letter (dated 11/2/49) to parents asking for consent. “The letter made no mention of radiation, saying only that the children would receive a ‘special diet’ to study the way the body absorbed cereals, iron and vitamins. It added that blood tests would be administered.”

-- N.Y Times, 12/31/93

From *The Tech*, Oct 17, 1995

- ❑ The report stated that children at the Fernald School were "unfairly burdened" by researchers from MIT and Harvard, who encouraged the children to take part in tests with promises of gifts or trips to Red Sox games.

The Tech, 10/17/95 (Continued)

- ❑ The researchers also appeared "unwilling to respect" some children's wishes not to participate in experiments, according to the report.



Established 1881

ONLINE EDITION

HOME NEWS OPINION ARTS SPORTS CAMPUS LIFE PHOTOS BLOGS

Volume 117 >> Issue 65 : Wednesday, January 7, 1998 PDF of This Issue

MIT to Pay Victims \$1.85 Million in Fernald Radiation Settlement

By Zareena Hussain
Associate News Editor

MIT and Quaker Oats Co. agreed last week to pay \$1.85 million to children at the Walter E. Fernald State School who were subjects of nutrition studies during the 1940s and 1950s as part of an out of court settlement. The students

At a Recent Conference Presentation...

- ☐ A very sincere presenter made the following statement:

At a Recent Conference Presentation...

- ❑ A very sincere presenter made the following statement:

“We at our facility are always ethical, based on the fact that everything we do is data based”

Data are Ethical, Right?

- ❑ Lets look at this, by looking at some recent history....

The 20th Century: A Tale of Two Doctors



Born 10/28/14



Born 3/16/11

Science and Humanity



Jonas Salk

Science and Inhumanity



Jonas Salk



Joseph Mengele

**Making decisions based on
reliable, valid, and
comprehensive data is not, in
and of itself, enough**

Is Science Ethical

- ☐ Science is a way of systematically searching for and evaluating knowledge about the world around us.
- ☐ It is neutral – that is, it is neither ethical nor unethical. It is simply a method, neither positive nor negative.

So, are People Ethical?

Are People Ethical?

- ☐ Stating that a particular person or organization “is ethical” is falling prey to an explanatory fiction.

Ethical People, Ethical Companies

- ☐ People are not ethical
- ☐ Companies are not ethical
- ☐ But then, what is ethical?

What is Ethical?

- ☐ People are not ethical
- ☐ Companies are not ethical
- ☐ But then, what is ethical?

Behavior is ethical



From Yahoo Images. Redstate.com Retrieved 3/20/17

“Trust me, politicians are corrupt. I bribe every one I meet.” –3/21/16



- ☐ So, what is the difference between ethics and morality?
- ☐ Can something be moral but unethical? Unethical and immoral?

What is Ethical?

- ☐ People are not ethical
- ☐ Companies are not ethical

Behavior is ethical

(**or not**, depending upon its adherence to an expressed written or culturally accepted code)

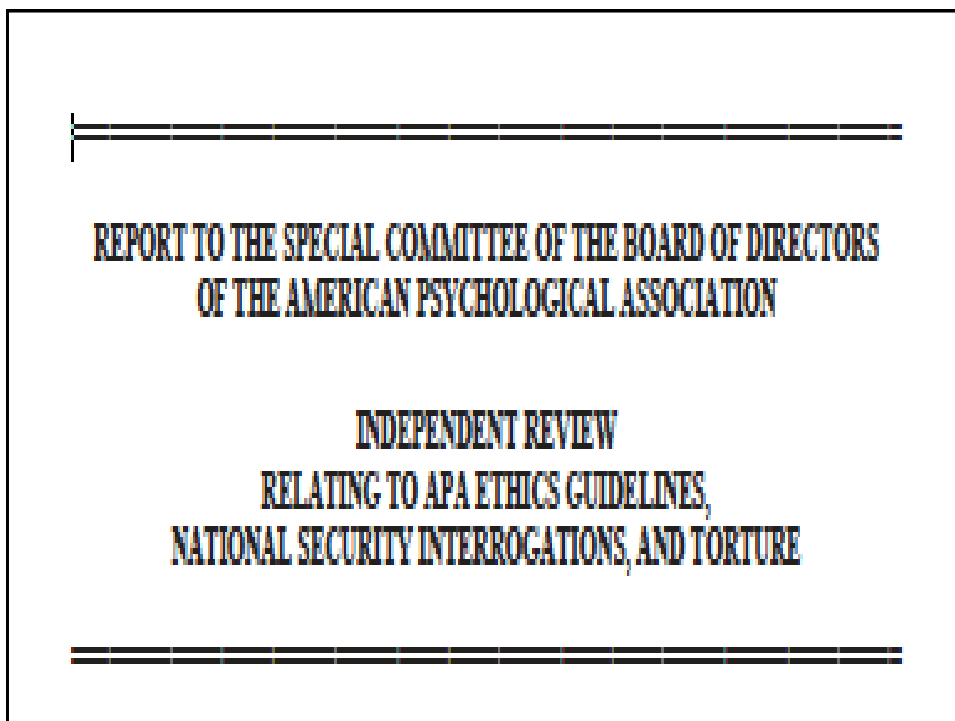
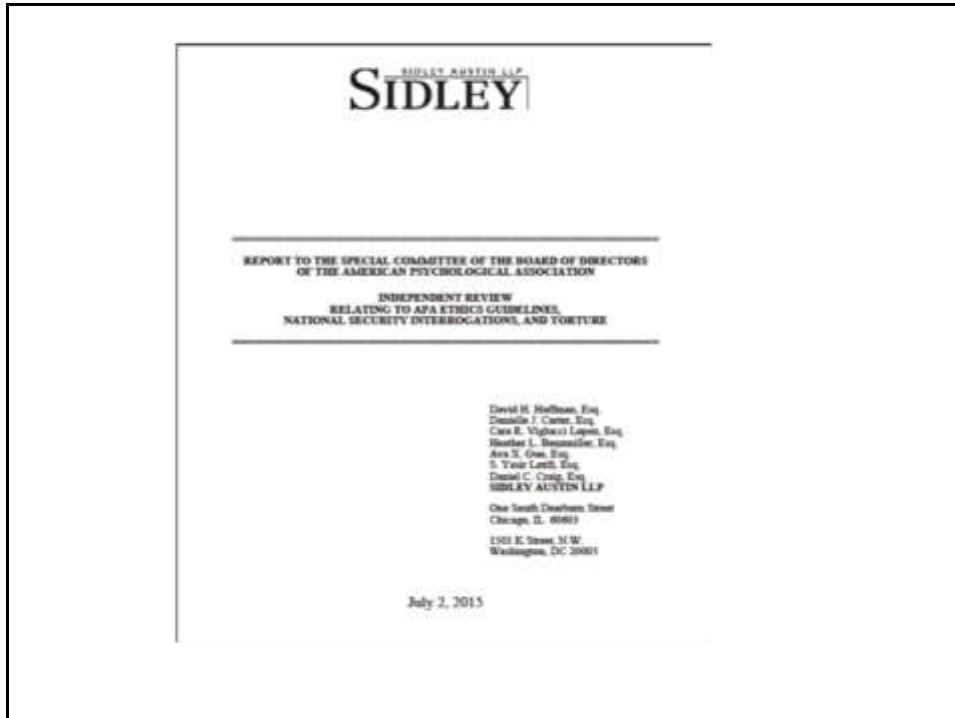
What is Ethical?

- ☐ People are not ethical
- ☐ Companies are not ethical

Behavior is ethical

(or not, depending upon its adherence to an expressed written or culturally accepted code)

And ethical codes evolve



The Hoffman Report

Report to the Special Committee of the
Board of Directors of the American
Psychological Association

The Hoffman Report

Report to the Special Committee of the
Board of Directors of the American
Psychological Association

**Independent Review Relating to APA
Ethics Guidelines, National Security
Interrogations, and Torture**

Ethical Codes Evolve

Working Well With Others

Working Well With Others

- ❑ In a recent survey of behavior analysts (Kelly and Tincani, 2013),
 - 62% reported daily collaboration with other professionals,
 - 23% weekly, 10% bi-weekly.
 - Yet 67% reported never having taken any course with “collaboration” in the title or course description

Research in Consultation/Collaboration

- ❑ Collaboration =
 - Improved consumer outcomes, (e.g., Hunt, Soto, Maier, & Doering, 2003; Kelleher, Riley-Tillman, & Power, 2008)
 - Improved educational outcomes, treatment fidelity (Kelly & Tincani, 2013)
 - Helping meet client goals (Cook & Friend, 2010)

Newhouse-Oisten, et al. (2017)

- ❑ Medical professionals follow their own professional ethical code, as does each professional member of any treatment team.
- ❑ Effective coordination between disciplines can only occur if communication among all treatment team members remains clear and frequent, especially regarding “changes in medication regimens, therapies, or programming.” p. 148

Even Skinner Has Something to Say on the Matter

Even Skinner Has Something to Say on the Matter

- ❑ “Roughly speaking, cooperative arrangements are productive. Things are done which would not be done otherwise. New ways of doing things may be discovered as contingencies interlock and are mutually altered.”

—R. Epstein, ed. (1980). *Notebooks: B.F. Skinner*.
p. 319

Related Code Element (continued)

- ❑ *1.02 Boundaries of Competence*
 - b) Behavior analysts provide services, teach, or conduct research in new areas (e.g., populations, techniques, behaviors) only after first undertaking appropriate study, **training, supervision, and/or consultation from persons who are competent in those areas.***

BACB (2014)

Code Element 2.03 Consultation

*a) Behavior analysts **arrange for appropriate consultations and referrals** based principally on the best interests of their clients, with appropriate consent, and subject to other relevant considerations, including applicable law and contractual obligations*

BACB (2014)

Related 4th Edition Tasks

- ☐ G-04: Explain behavioral concepts using nontechnical language
- ☐ G-05: Describe and explain behavior, including private events, in behavior-analytic (non-mentalistic) terms
- ☐ G-06: Provide behavior-analytic services **in collaboration with others** who support and/or provide services to one's clients

Related 4th Edition Tasks

- ☐ G-07: Practice within one's limits of professional competence in applied behavior analysis, and **obtain consultation**, supervision, and training, or make referrals as necessary

Related 4th Edition Tasks

- ☐ K-02: Identify the contingencies governing the behavior of those responsible for carrying out behavior-change procedures and design interventions accordingly

Related 4th Edition Tasks

- ☐ K-08: Establish support for behavior-analytic services from direct and *indirect* consumers [my italics]
- ☐ K-09: Secure the support of others to maintain the client's behavioral repertoires in their natural environments

Interdisciplinary Teams

- ☐ Groups of individual professionals who interact and coordinate services for an individual
- ☐ Typically an interdisciplinary team is led by a case manager or a QIDP
- ☐ They are more likely to be face-to-face meetings in institutional and/or agency settings

A Couple of Good Resources

- ❑ Pyles, D. A., Muniz, K., Cade, A., & Silva, R. (1997). A behavioral diagnostic paradigm for integrating behavior-analytic and psychopharmacological interventions for people with a dual diagnosis. *Research in Developmental Disabilities, 18*(3), 185-214.
- ❑ Nancarrow, S. A., Booth, A., Ariss, S., Smith, T., Enderby, P., & Roots, A. (2013). Ten principles of good interdisciplinary team work. *Human Resources for Health, 11*(19)

Ten Characteristics of a Good Interdisciplinary Team

1. Leadership and management

- Clear leader of the team; provides clear direction and management; both listens and acts; support and supervision; democratic

Nancarrow et al., 2013

Ten Characteristics of a Good Interdisciplinary Team (continued)

2. Communication

- Individuals with communication skills

3. Personal rewards, training, development

- Learning, training, individual and career development opportunities

Nancarrow et al., 2013

Ten Characteristics of a Good Interdisciplinary Team (continued)

4. Appropriate resources and procedures

- Structures (team meetings, members in the same location, administrative support)

5. Appropriate skill mix

- Sufficient/appropriate skills, competencies, practitioner mix, timely replacement, coverage for absent posts

Nancarrow et al., 2013

Ten Characteristics of a Good Interdisciplinary Team (continued)

6. Climate

- Culture of trust, valuing contributions, nurturing consensus

7. Individual characteristics

- Knowledge, experience, initiative, listening skills

8. Clarity of vision

- Having a clear set of values that drive the direction of the service and care

Nancarrow et al., 2013

Ten Characteristics of a Good Interdisciplinary Team (continued)

9. Quality and outcomes of care

- Client-centered, outcomes and satisfaction, encouraging feedback, recording evidence of effectiveness of care and using that as part of a feedback cycle to improve care

10. Respecting and understanding roles

- Sharing power, joint working, autonomy

Nancarrow et al., 2013

A Closer Look at #9

9. Quality and outcomes of care

- **Client-centered, outcomes** and satisfaction, encouraging feedback, ***recording evidence of effectiveness of care and using that as part of a feedback cycle*** to improve care

☐ Who is better equipped to do this than you?

☐ But as Behavior Analysts we have a very specific responsibility related to these professional collaborative efforts....

Proper Collaboration Requires Adherence to Science.

☐ **Code 1.01: Reliance on Scientific Knowledge:**

- Behavior analysts rely on professionally derived knowledge based on science and behavior analysis when making scientific or professional judgments in human service provision, or when engaging in scholarly or professional endeavors.

Thus:

Evidence-Based Practice

❑ Does “Evidence-based” just mean “effective”, and “based in good research”?

Project Follow Through: 1967

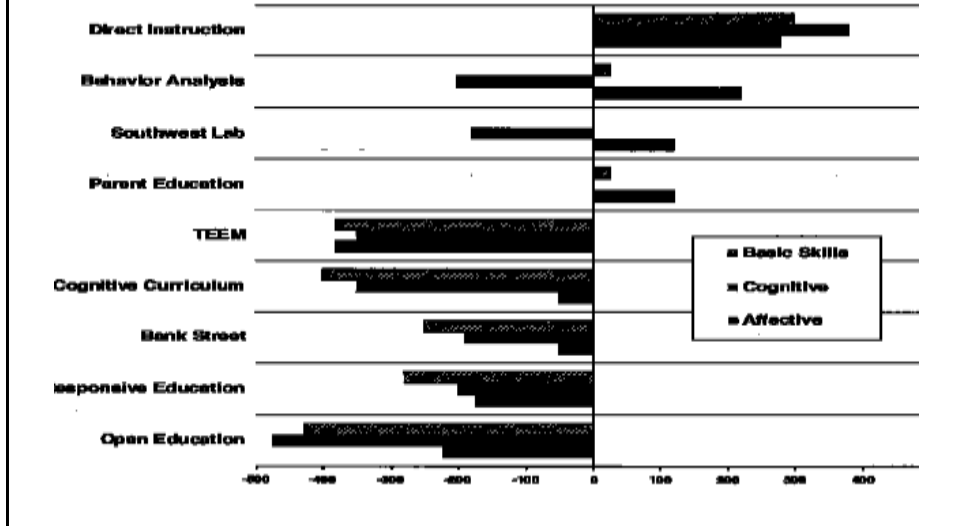
The following graphs are taken from the Journal published by the
Association for Direct Instruction:

Effective School Practices

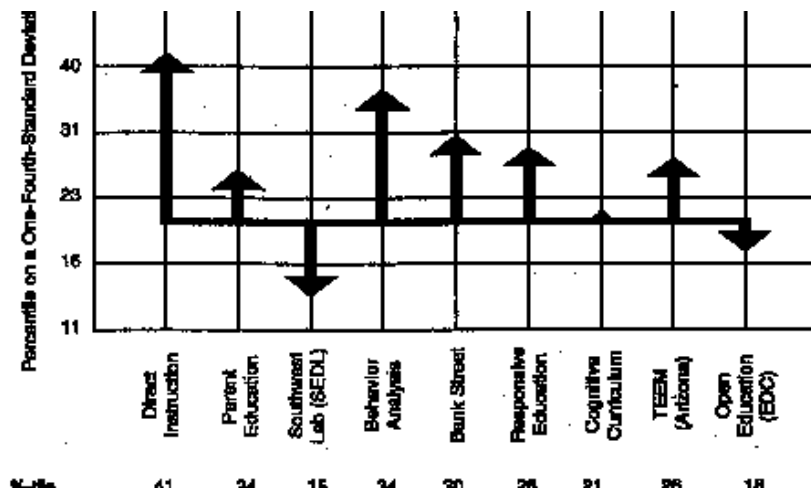
Volume 15 Number 1, Winter 1995-6

Focus: What Was That Project Follow Through?

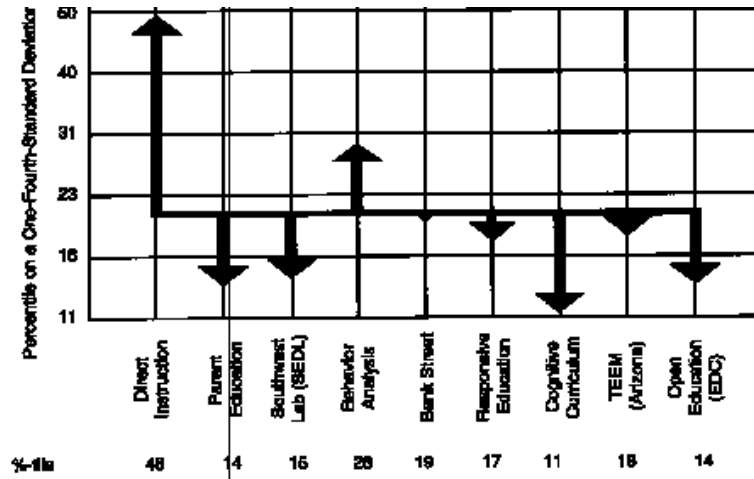
Cathy Watkins Article: Project Follow Through: Why Didn't We?



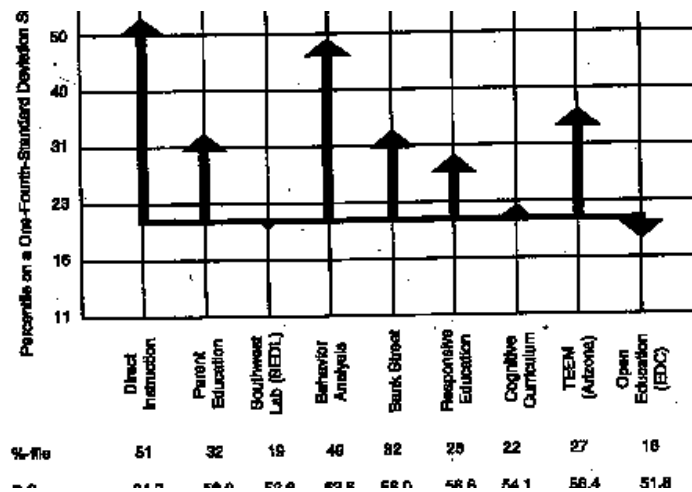
Reading



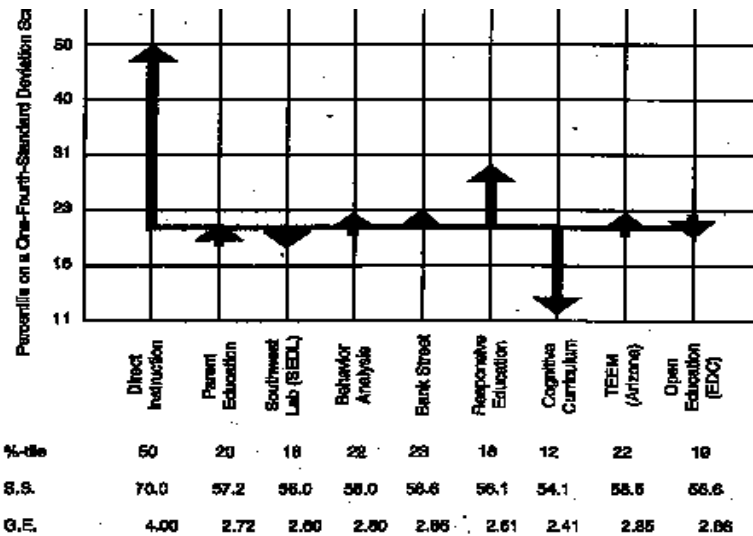
Math



Spelling



Language



Frazier, et.al., 2010

- ❑ *Effectiveness of Medication Combined with Intensive Behavioral Intervention for Reducing Aggression in Youth with Autism Spectrum Disorder*

JOURNAL OF CHILD AND ADOLESCENT PSYCHOPHARMACOLOGY Volume 20, Number 3, 2010 p 167-177

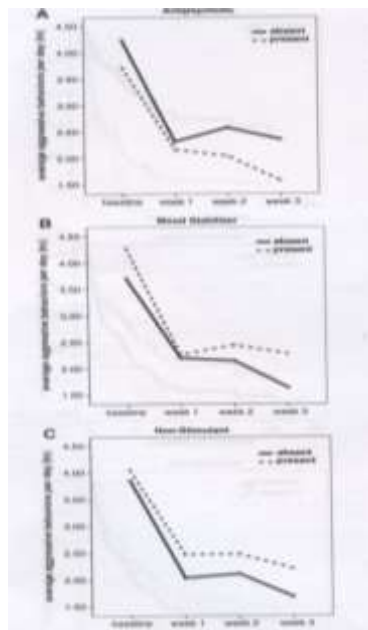
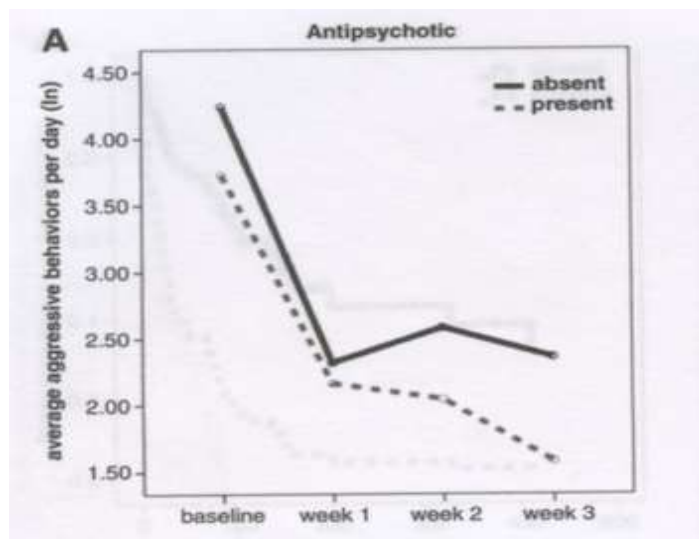


FIG. 5. Changes in the frequency of aggressive behavior from baseline to week 3 of IM treatment, separately for antipsychotic (A), mood stabilizer (B), and non-maintenance (NIM)/drop (N) (C).

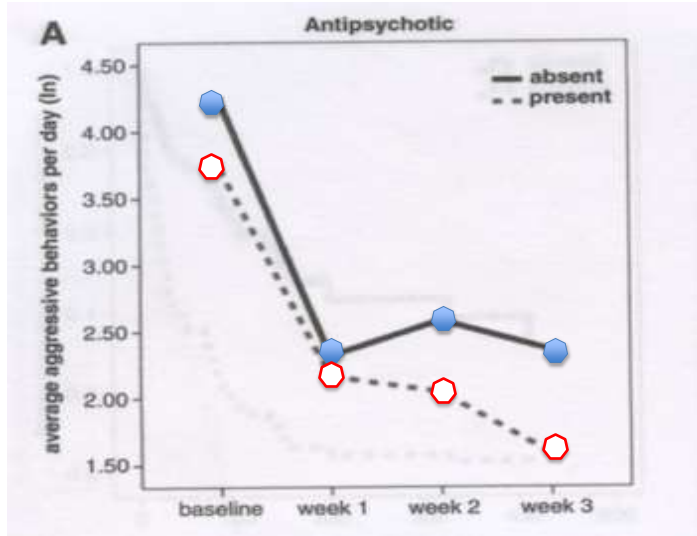
Antipsychotic

(Risperdal, Abilify, Geodon, Clozapine, Mogan, Zyprexa)



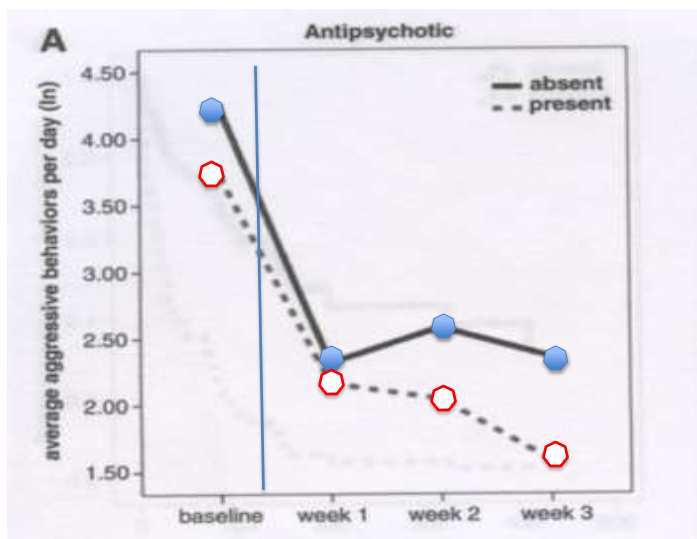
Antipsychotic

(Risperdal, Abilify, Geodon, Clozapine, Moban, Zyprexa)



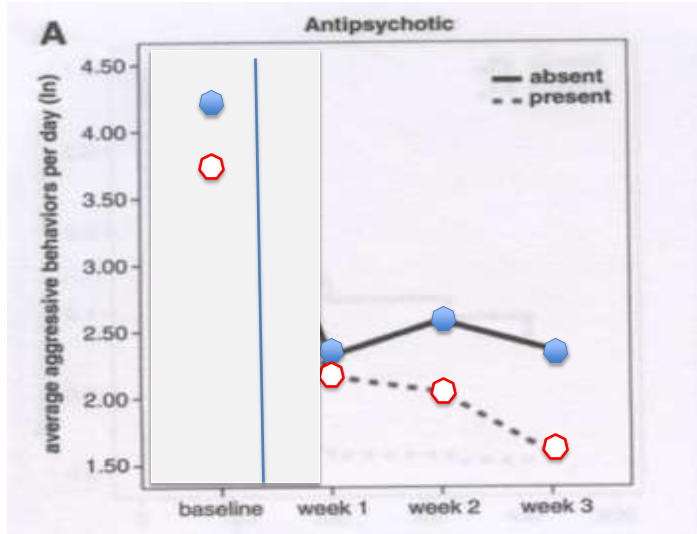
Antipsychotic

(Risperdal, Abilify, Geodon, Clozapine, Moban, Zyprexa)



Antipsychotic

(Risperdal, Abilify, Geodon, Clozapine, Mogan, Zyprexa)



Conclusion

- ❑ “Behavioral treatment combined with antipsychotic medication was the most effective approach to reducing aggressive behaviors in youths with ASD. Mood-stabilizing and non-stimulant ADHD/sleep medications did not contribute to aggression reduction”

Peter Sturmey (2002)

- ❑ In his article “Mental Retardation and Concurrent Psychiatric Disorders: Assessment and Treatment”, in *Current Opinion in Psychiatry*, Sturmey states:
 - “Interventions based on ***applied behavior analysis*** have the ***strongest empirical basis***, although there is some evidence that some other therapies have promise”. (my ***bold italics***)

Stronger Language from Sturmey, (2012)

- ❑ “ABA has addressed a very wide array of target behaviors, including psychopathology in typically developing children and adults and early intensive behavioral intervention with ASD.” (p.594-5). He continues...
- ❑ “Recent expert panels and authorities such as the Surgeon General have identified ABA as an evidence-based practice in diverse areas, such as autism, and as ...

Stronger Language from Sturmey, (2012)

❑ ... the first-line psychosocial treatment for behavioral and psychiatric disorders in people with IDs. Many systematic reviews have also confirmed these conclusions related to the effectiveness of ABA and the general absence of evidence supporting other psychosocial interventions.” (p. 595)

ABA As Approved Treatment

- ❑ The only educational / treatment approach for Autism supported by:
 - The State of NY Health Dept. (1999)
 - The US Surgeon General (1999)

National Standards Report (2009)

- ☐ About 2/3rd of established treatments were developed exclusively from behavioral literature
- ☐ The other 1/3rd of established treatments were derived predominantly from behavioral literature

Evidence-based Practice (EBP)

- ☐ So, are successful experimental results in peer-reviewed studies sufficient to demonstrate “evidence-based practice”?

Two Useful Sources

- ❑ Smith, T. (2013). What is evidence-based behavior analysis? *The Behavior Analyst*, **36**, pp. 7-33
- ❑ Slocum, T. A., Detrich, R., Wilczynski, S. M., Spencer, T. D., Lewis, T., Wolfe, K. (2014). The evidence-based practice of applied behavior analysis. *The Behavior Analyst*, **37**, pp. 41-56

Definition of EBP

- ❑ The APA (2005) defines evidence-based practice as, “the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences.”
- ❑ The Institute of Medicine (2000): EBP “is the integration of best research evidence with clinical expertise and patient values.”

Smith 2013

- ❑ The purpose of EBP: “to help consumers and providers choose among intervention approaches (Dietrich, 2008).” P.9
- ❑ Financial support (insurers, etc) is increasingly based on a designation of a practice as EBP (Green, 2008)

Standard Characteristics of EBP?

- ❑ Smith suggests EBP is characterized by:
 - Treatment **packages**; combinations of specific interventions, often addressing a variety of response classes
 - Manuals to insure that interventions can be accurately replicated

Single Subject vs. Group

- ❑ Smith suggests (accurately) that SSEDs are not well accepted in broader contexts (e.g., Cochrane reviews, or governmental evaluations of broad-based problem-solving strategies)
- ❑ Thus our science must begin to look at utilizing group designs and RCTs (randomized controlled trials) – as well as SSEDs – to gain wider acceptance of ABA as an evidence-based practice

Slocum et al. (2014)

- ❑ Smith has many good points, but..
- ❑ Overemphasizes one part of EBP – Empirically Supported Treatments (EST) – and underemphasizes the other components.
- ❑ This **does not** align with the idea of EBP as defined by other disciplines (or by funding/government agencies)

Three Major Components of EBP

- ❑ **The best available evidence** – empirically supported treatments
- ❑ **Contextual factors**, including client values and preferences – social validity
- ❑ **Clinical expertise** of the service provider

The Quality of Evidence

- ❑ **Relevance**: relates to external validity
 - Ext. Validity = Research results applicable to a range of situations
 - Relevance = Research results applicable to a specific situation
- ❑ **Certainty**: relates to internal validity
 - But also includes quantity of evidence, systematic replication, experiment rigor

Slocum et al.

- ❑ Evidence-based practice is not a set of interventions – it is a **decision-making framework** that allows for the most-likely-to-be-effective treatment (or package of interventions) to be provided, given the *contextual variables* in play.

Definition of “Client”

- ❑ Who is the client?
- ❑ The code identifies our “client” as hierarchy of individuals (see Code Glossary, p.23), with the person receiving treatment at the apex – but many others to be considered

Context

“Decision-making is necessarily based on a set of values that determine the goals that are to be pursued and the means that are appropriate to achieve them... the effectiveness of an intervention is highly dependent upon the context in which it is implemented.”

-- Slocum, et al, p44)

Contextual Factors

- ☐ Client values, perspectives, characteristics, preferences
- ☐ Contextual fit: social validity, but also other aspects of the environment!
- ☐ The Story of Pauline

Stakeholder Participation

- ❑ Benazzi et al., (2006):
- ❑ Looked at effect of stakeholder participation on acceptability and use of behavior plans
 - Plans developed by behavior experts were rated high in technical proficiency, but low in acceptability
 - Plans developed by key stakeholders were technically inadequate, but highly acceptable

A Process Including Both the Behavior Analyst and the Stakeholder:

- ❑ Plans were considered both technically adequate and acceptable
- ❑ Behavior analysts are most effective when they “consider motivational variables such as the alignment of interventions with the values, reinforcers, and punishers of relevant stakeholders.” (p.51)
- ❑ The Story of Jill

Mulick & Butter (2016)

- ❑ In their critique of PBS, they state:
 - The emphasis in science on, “letting no assertion of fact go unchecked is the essence of the *success* of this approach in achieving progress in understanding and controlling the material processes we find in nature. It permits no dogma to persist...no authority to completely quiet criticism.” (p.305)

PBS vs ABA

- ❑ Mulick and Butler refer to the article by Carr et al., (2002), “Positive Behavior Support: Evolution of Applied Science”, to list the 3 sources of PBS:
 - ABA
 - The normalization movement
 - Person-centered values

PBS Does Not Seem to be Science

- ☐ Arguments can be made as to the benefits of “normalization”
- ☐ “Person-centered planning” sounds very humanitarian in approach
- ☐ But the moment you add political or philosophical considerations to your method of analysis, your approach is tainted by bias.

The Tightrope

- ☐ As in the story of Jill, behavior analysts may find that arguments regarding our science may need to be withheld – for what can be called “political” reasons.
- ☐ This is often true, e.g., when coordinating with physicians prescribing psychotropic medication

The Tightrope: Shaping

- ❑ But that only means the approach to treatment may require some use of shaping – i.e., reinforcing successive approximations over time.

The Code: 2.09: Treatment/Intervention Efficacy

- ❑ 2.09 (a): Clients have the right to effective treatment (i.e., based on the research literature and adapted to the individual client). Behavior analysts always have the obligation to advocate for and educate the client about scientifically supported, most-effective treatment procedures. Effective treatment procedures have been validated as having both long-term benefits to clients and society

The Code: 2.09 (c)

- ☐ “In those instances where more than one scientifically supported treatment has been established, additional factors may be considered in selecting interventions, including, but not limited to, efficiency and cost-effectiveness, risks and side-effects of the interventions, client preference, and practitioner experience and training.”

Collaboration

- ☐ How can we evaluate other treatments, especially non-behavioral treatments?
- ☐ One reasonably recent article suggests the possible scope of the problem
- ☐ Two other articles suggest evaluation approaches

First, the Scope

- ❑ Schreck & Mazur (2008). Behavior analyst use of and beliefs in treatments for people with autism. *Behavior Interventions*, 23. pp. 201-212
 - 469 BCBAs surveyed who reported the following in terms of encountering the use of alternative treatments in their clinical practice

What They Found

- ❑ Treatments used by other professionals
 - SI: 63.3%; AI: 45%; Floortime: 43.1%;
FC: 32.6%

What They Found

- ☐ Treatments used by other professionals
 - SI: 63.3%; AI: 45%; Floortime: 43.1%;
FC: 32.6%
- ☐ Treatments used by the BCBAs
 - VB: 70.4%; Floortime: 14.9%
 - SI: 16.4%

What They Found

- ☐ Treatments used by other professionals
 - SI: 63.3%; AI: 45%; Floortime: 43.1%;
FC: 32.6%
- ☐ Treatments used by the BCBAs
 - VB: 70.4%; Floortime: 14.9%
 - SI: 16.4%
 - **FC: 6.4%**

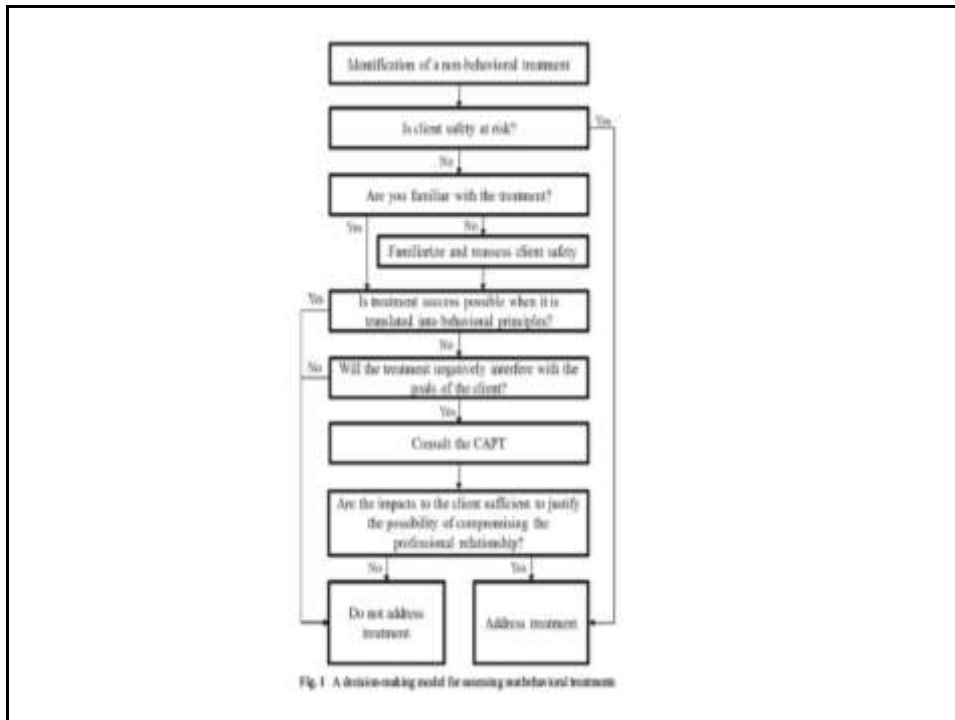
Brodhead (2015)

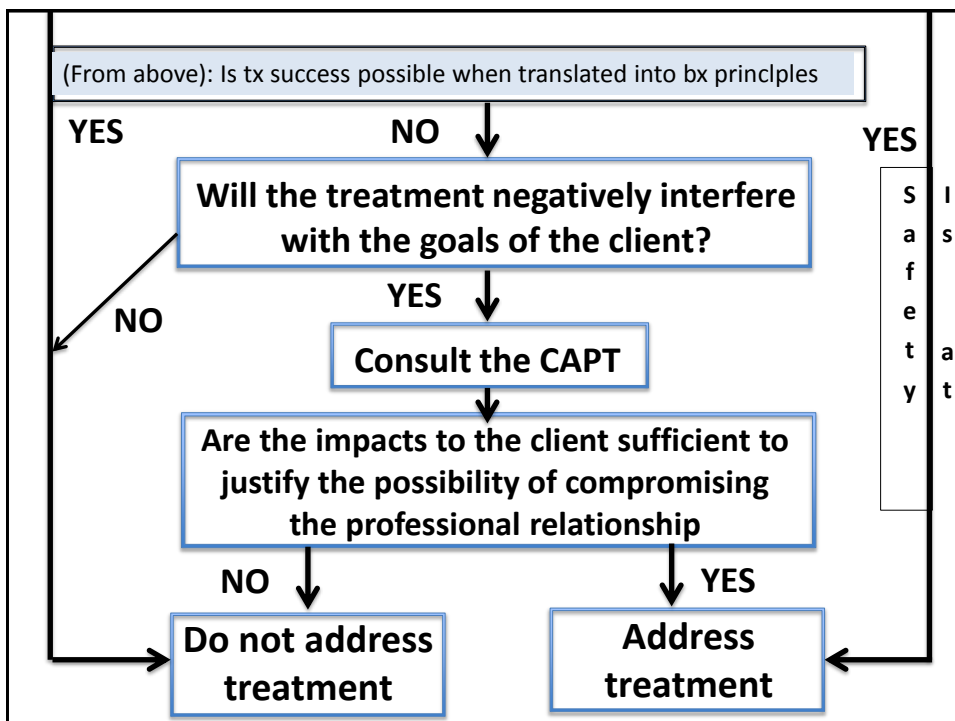
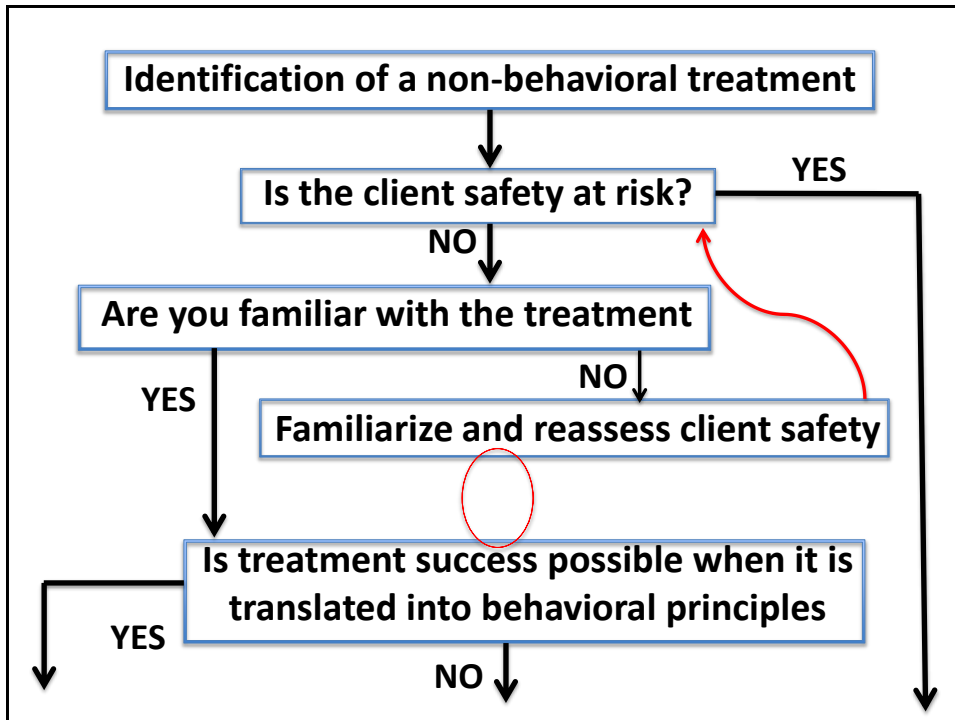
Maintaining Professional Relationships
in an Interdisciplinary setting:
Strategies for Navigating Nonbehavioral
Treatment Recommendations for
Individuals with Autism

Behavior Analysis in Practice, 8, pp. 70-78

The Code 2.09 (d)

- ☐ Behavior analysts review and appraise the effects of any treatments about which they are aware that might impact the goals of the behavior-change program, and their possible impact on the behavior-change program





The CAPT

- ☐ The Checklist for Analyzing Proposed Treatments
- ☐ Outlines 7 domains relating to treatment
- ☐ Assesses the probability that key components of each domain will be addressed by the non-behavioral tx.

The 7 Domains of the CAPT

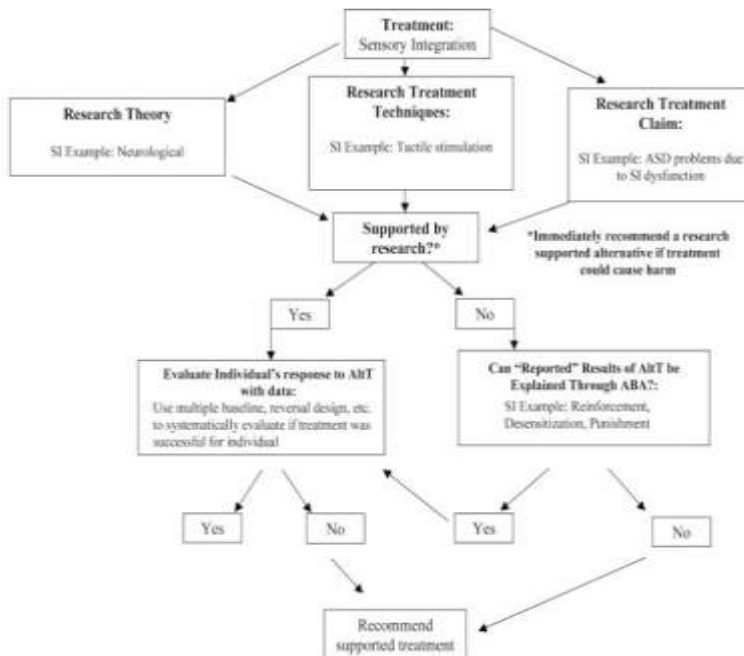
- ☐ Functional basis of treatment
- ☐ Skill acquisition
- ☐ Social outcomes
- ☐ Data collection
- ☐ Treatment integrity
- ☐ Social validity
- ☐ Resources required

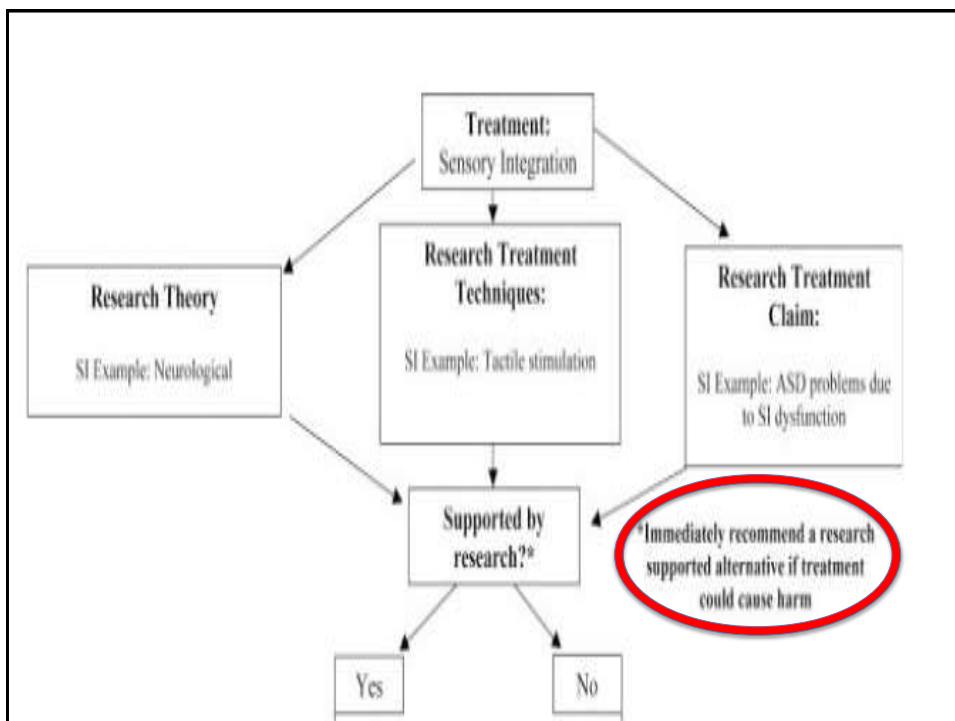
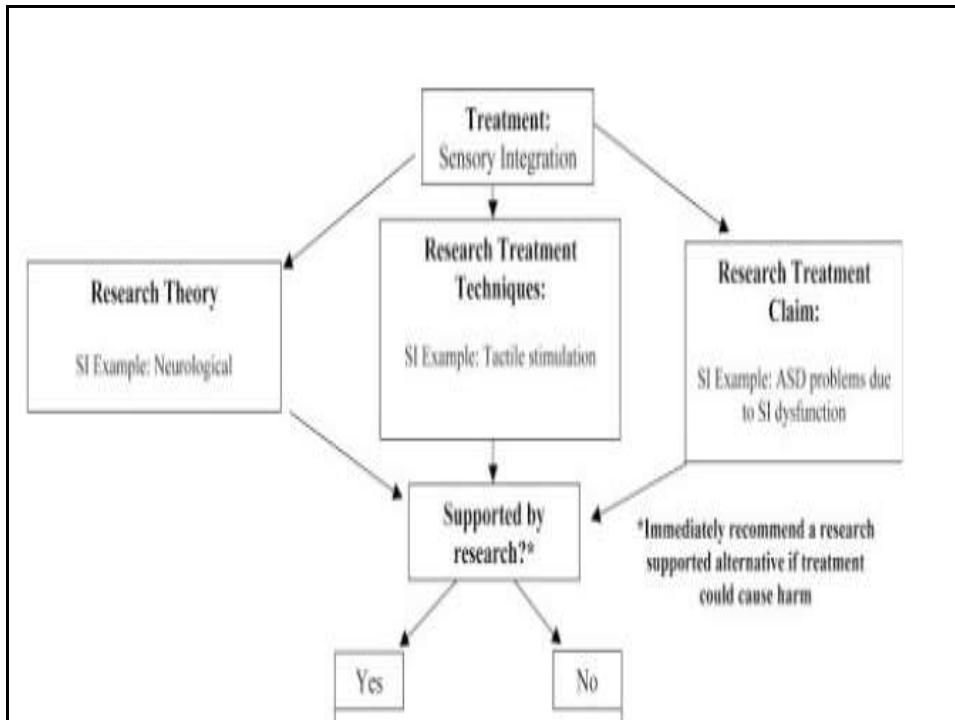
Schreck & Miller (2010)

(Penn State University!)

How to Behave Ethically in a World of Fads

Behavior Interventions, **25**, 307-324



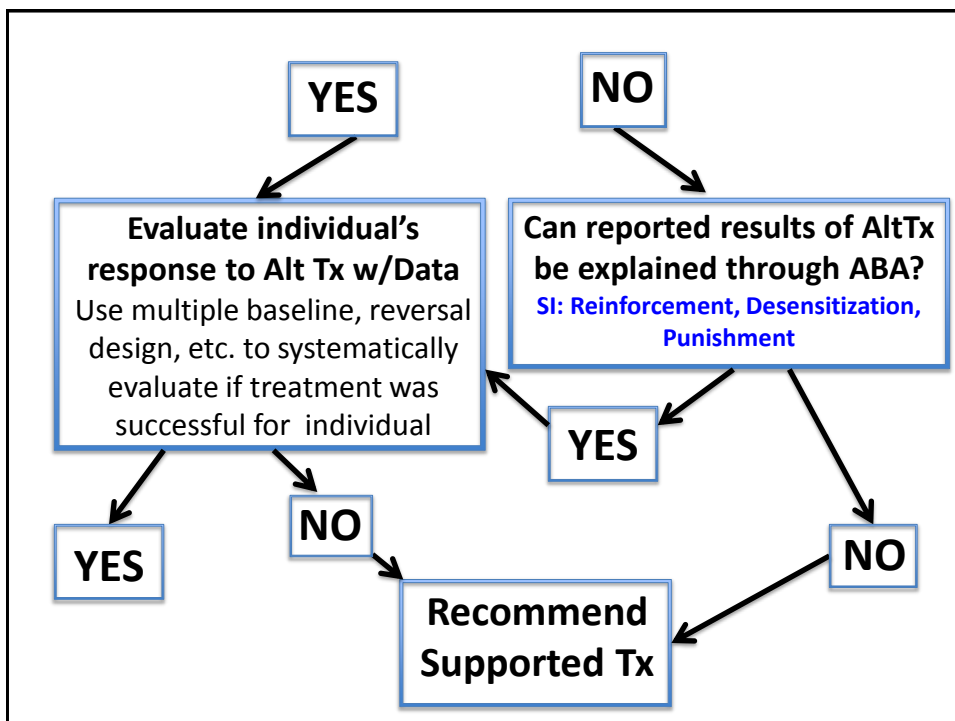
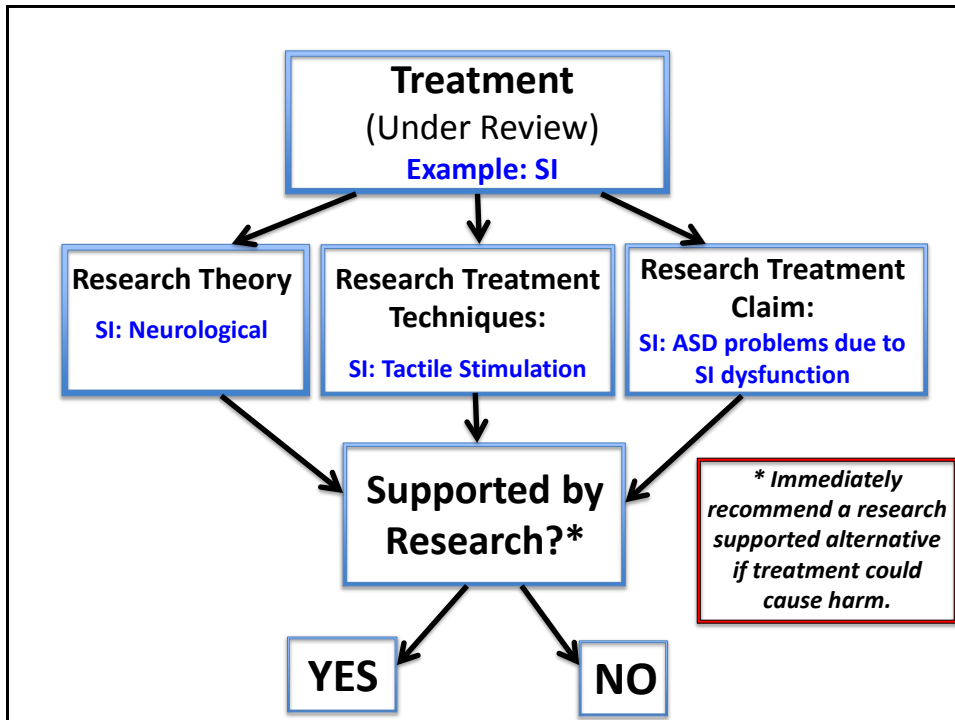


An Immediate Response Required

- ❑ “Immediately recommend a research-supported alternative **if treatment could cause harm**”

Sensory Integration

- ❑ The following example is provided in the article: An evaluation of Sensory Integration (SI)



An Extensive Look at SI

- ❑ Smith, Mruzek, & Mozingo. 2016. Sensory Integration Therapy.
 - (Chapter 15 in *Controversial Therapies for Autism and Intellectual Disabilities: Fad, Fashion and Science in Professional Practice* 2nd edition. R. M. Foxx and J. A. Mulick)

The Underlying Theory

- ❑ Ayers (1972) presents SIT's main tenet: Integration of sensory input is necessary for high-level cognitive functioning
- ❑ Sensory systems arose early in evolutionary history, and are prerequisites for the development of more complex cognitive skills

Counter-evidence

- ❑ Ayers posits that vestibular, proprioceptive and tactile systems reside in the primitive sub-cortical pathways that must develop before the formation of advanced cortical systems
- ❑ But many individuals who have sensory impairments excel at cognitive tasks. How can this be, if Ayers is correct?

An Inaccurate Model

- ❑ “The functional organization of the nervous system is more accurately conceptualized as a co-occurring and interactive network of cortical and sub-cortical systems ... A linear model that posits that one system must reach some prerequisite level of development in order for a “higher” system to function properly is inaccurate.” – Smith et al p.249

Claims of SIT Benefits

1. Enhanced ability to focus in social, educational contexts (Wilbarger & Wilbarger, 2002)
2. Reduction in disruptive behavior (e.g., Reisman 1993)
3. Improved functioning of nervous system – gains in high level cognitive activities (Ayers, 1974)

Can ABA Explain Observed Gains ?

- ☐ Tactile defensiveness?
 - Is it a cause, or learned sensitivity to stimuli, which can be systematically desensitized by brushing skin?
- ☐ Activities are fun - reinforcing
- ☐ Activities provide escape
- ☐ Spinning can be punishing (nauseating) so reduces the behavior that preceded it

Two Researchers Conclusions

- ❑ Goldstein, H. (2000). Commentary: Interventions to facilitate auditory, visual, and motor integration: “Show me the data”. *Journal of Autism and Developmental Disorders*, **30**, 423-425.
- ❑ Lang, R. et al., (2012). Sensory integration therapy for autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, **6**, 1004-1018.

Goldstein

- ❑ “Can we allow treatments that are too good to be true? Can we allow anecdotal reports, case studies, and uncontrolled experiments to continue to guide the field and families of children with autism?”
– (p.424)

Lang et al.

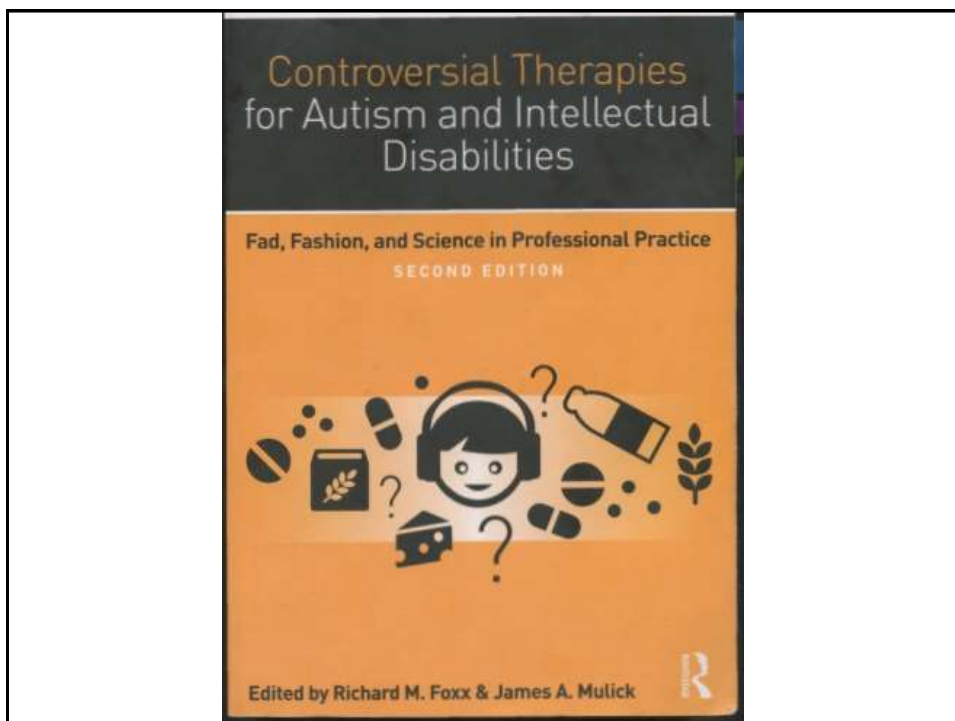
- ❑ They looked at 25 studies on SIT and sensory diets, m most conducted by Occupational Therapists, mainly in classroom settings. Highly mixed results, methodological problems
- ❑ “There is insufficient evidence to support the use of SIT as a therapy for children with ASD.” (p.1017)

Peters and Heron (1993)

- ❑ Their “Baloney Detection Kit”
 - Does the model or program derive from sound theoretical base?
 - Is the research methodology convincing and compelling?
 - Is there consensus with existing literature?
 - Is there evidence that outcome data are consistently produced?
 - Is there evidence of social validity?

A Very Important Book

- ❑ *Controversial Therapies for Autism and Intellectual Disabilities: Fad, Fashion and Science in Professional Practice*, 2nd edition. (2016). R. M. Foxx and J. A. Mulick.



DIR/Floortime

- ❑ Greenspan & Weider (2006)
 - Identifies 6 functional/emotional/developmental milestones that promote “emotional and cognitive development and higher-level thinking and development of a sense of self.”
- ❑ Ross & Littleton, 2011. *ABA and DIR/Floortime: Compatible or Incompatible*
 - A CE presentation available through the Cambridge Center for Behavioral Studies
 - Bob Ross became certified DIR teacher

Some Improvements in Behavior Have Been Reported

- ❑ Sensory Integration Therapy
- ❑ Floor-Time/DIR
 - Functional **D**evelopment levels,
 - **I**ndividual differences in sensory processing,
 - **R**elationship-based
- ❑ But on closer examination, these studies were deeply flawed, typically on methodological grounds

Other Alternative Treatments

- ☐ Animal – Assisted Therapies
- ☐ Auditory Integration Training
- ☐ Aromatherapy
- ☐ Doman-Delgado Patterning
- ☐ Gentle Teaching
- ☐ Hyperbaric Chambers
- ☐ Chelation

The American Speech-Language Hearing Association (ASHA)

- ☐ “It is the position of (ASHA) that the scientific validity and reliability of facilitated communication have not been demonstrated to date. Information obtained through or based on facilitated communication should not form the sole basis for making any diagnostic or treatment decisions.” (ASHA 1995, para.2)
- ☐ The 2002 ASHA Work Group on AIT, after reviewing empirical research in the area to date, concludes that AIT has not met scientific standards for efficacy that would justify its practice by audiologists and speech-language pathologists” (ASHA, 2004, para. 1).

Article On APA Website, 2003

- ❑ “As a result of the APA statement (and similar statements from many other scientific organizations), most schools and treatment centers stopped using the technique in the mid 1990s. Perhaps the saddest part of this story is that the most vocal advocates of this technique continue to use it and insist that it is effective — despite the disconfirming evidence. As one parent said, even if the technique is merely an illusion, it is an illusion that they wish to continue.”

—APA, Nov 20, 2003: Facilitated Communication: Sifting the Psychological Wheat from the Chaff

Retrieved on 7/28/17

- ❑ This points up a very important fact: Just because a treatment is empirically supported, and meets the standard of “evidence-based practice”, it may not win the argument with emotionally appealing treatment options.

- ❑ Sometimes a treatment seems to have some possible positive effect, but there is no valid theoretical underpinning...

The Shaman and the Fever



- ☐ A key question can be, “If it does no harm, then...what’s the harm?”
 - Time lost
 - Resources spent
 - Potential treatment interference
- ☐ These must all be weighed against consumer preference and beliefs...
- ☐ Your responsibility is to inform the consumer. Consent must be **informed**

What If All Your Work Is For Naught

- ☐ Sometimes, your client will insist on using inappropriate and potentially damaging treatment modalities, but still wants the behavior analyst to provide treatment.
- ☐ What do you do?

A Draft Quote from an Upcoming Chapter on Ethics

- ❑ “In some rare cases, the alternative approach is so disruptive to the effective delivery of behavioral services that the practitioner must withdraw from the case, providing the client with clear and valid reasons for doing so.”

Social Media

- ❑ “Social media have become the marketplace and village square of the 21st century, where social interactions flourish.” – Freeman et al., in press
- ❑ O’Leary, Miller, Olive & Kelly (2017) provide the following guidelines:

Guidelines for Social Media Use

1. Real clients should be heavily disguised. Whenever talking about anything client specific, many details can be changed and the point of the discussion remains intact.
2. Avoid making treatment recommendations. There is insufficient information on social media outlets to give specific advice.
3. Refer readers back to the literature: Don't make a treatment recommendation, recommend a specific paper, or work by particular authors.

Guidelines for Social Media Use

4. Write a disclaimer: Be sure that anyone reading anything you write, especially an answer to a question, cannot get the idea that there is a professional relationship here. Be explicit in stating this.
5. Provide resources: Beyond literature references, provide interested parties with ideas for search topics, websites, and the opportunity to discuss a post offline, to prevent misinterpretation by non-behavior analysts.

Guidelines for Social Media Use

6. Provide organizational training. This fits with *The Compliance Code*'s requirement that we create a culture of ethics. Training in a work setting on how to navigate the dangerous currents of social media can be vital in preventing potential problems.

Some Examples of Social Media Pitfalls

- ☐ Frank and the Behavior Analysis Facebook Page
- ☐ Shoshana and happy family pictures

A Final Article

The Behavior Analyst

1996, 19, 147-161

No. 2 (Fall)

Translating the Covenant: The Behavior Analyst as Ambassador and Translator

R. M. Foxx

Penn State University, Harrisburg

Behavior analysts should be sensitive to how others react to and interpret our language because it is inextricably related to our image. Our use of conceptual revision, with such terms as *punishment*, has created communicative confusion and hostility on the part of general and professional audiences we have attempted to influence. We must, therefore, adopt the role of ambassador and translator in the nonbehavioral world. A number of recommendations are offered for promoting, translating, and disseminating behavior analysis.

Key words: language, image, translations, conceptual revisions

Within and Without the IDT

- ❑ We must translate and communicate the behavior analytical model for others (non-behavior analysts)
 - For many years, leaders in our field have identified this as an important component in the repertoire of a successful behavior analyst.

The Scholar-Disseminator Catch-22, Part 1

- ❑ Foxx (1996) states, “We must recognize that innovators are frequently not good disseminators and that many scholars find dissemination to be a base activity and a dirty word because it becomes promotion” (citing Sherman, 1992)

The Scholar-Disseminator Catch-22, Part 2

- ❑ But he goes on to cite a personal communication he received from Jerry Shook:
“Yet, dissemination creates a market for scientific discoveries. We must not devalue dissemination.”

Foxx: (1996)

- ❑ “Historically, we have been a maverick group with an outsider mentality that has been passed to our students ... We delight in asking, ‘where are your data?,’ poking fun at other models, and engaging in vigorous and withering discourse regarding our science.

Foxx goes on

- ❑ Although this repertoire may have served us well in establishing our field, it may be non-functional now. What makes a good behavior analyst can be bad for public relations. What is a blessing for a scientist can be a curse for a disseminator.” (pp.149)

Dr. Pat Friman in The Behavior Analyst, 10/14, has said that most of his talks are grounded in the following message:



- ❑ “Most behavior is a function of its circumstances – not of hypothetical mental states -- and widespread adoption of this view would make the world a better place.”
- ❑ He has also said that behavior analysts thus are in possession of the most powerful discovery in history for solving Mankind’s problems.

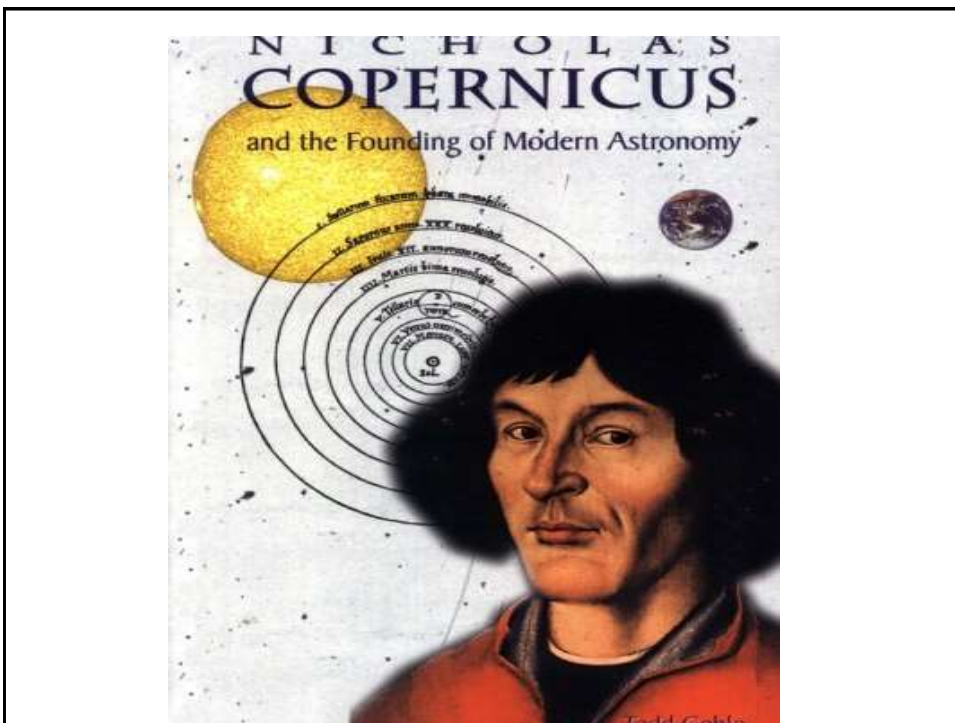
☐ We are, he says, “the chosen people”

☐ We are, he says, “the chosen people”

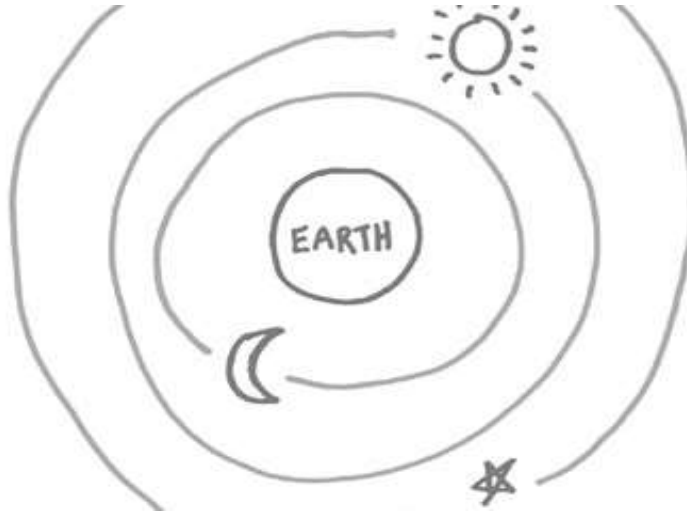
☐ But there is some checkered history
for people who possess special
knowledge...

- ❑ We are, he says, “the chosen people”
- ❑ But there is some checkered history for people who possess special knowledge...
- ❑ Sometimes being “chosen” places one in a vulnerable position...





The Old Paradigm



The New Paradigm





When people ask what I do...

- ☐ I tell them I am a “behavior analyst”?

When people ask what I do...

- ☐ I tell them I am a “behavior analyst”?
- ☐ And then what do they say?

When people ask what I do...

- ☐ I tell them I am a “behavior analyst”?
- ☐ And then what do they say?
- ☐ Something like.... *“I sure hope you aren’t analyzing my behavior right now”*

The very name of our discipline
poses a threat to people who
know very little about us.

The Words We Use:

- ❑ What is “extinction”?

Extinction



Permanent Death!



The words we use...

- ☐ Behavior: Aubrey Daniels found out..
- ☐ Response: You don't mean reaction?
- ☐ Consequence: That's bad, right?
- ☐ Control group: Who is the controller?
- ☐ Manipulate variables: Like I said...!
- ☐ Intervention: Isn't that like invasion?
- ☐ Punishment: Ah, yes. Punishment...

Misconceptions about ABA

- ☐ "Behavior modification" is all about control

Misconceptions

- ❑ ABA is just S-R psychology:
Pavlov's dogs...

Misconceptions

- ❑ ABA sees
thoughts/emotions as
unimportant
 - They are unobservable
and cannot be taken into
account (Methodological
Behaviorism)

Misconceptions

- ❑ ABA only works for children with autism or adults with developmental disabilities

Misconceptions about ABA

- ❑ Reinforcement is *bribing* people to do things

Misconceptions about ABA

- ❑ Reinforcement is *bribing* people to do things
 - *Punished by Rewards* by Alfie Kohn: A logical oxymoron, and a profound lack of understanding

Misconceptions about ABA

- ❑ Behavior analysis is mechanistic and cold
- ❑ Behavior analysts don't really care about people—they just manipulate others

More Misconceptions

- ❑ Behavior analysts use lots of punishment, which they slyly call “negative reinforcement”

More Misconceptions

- ❑ Skinner kept his daughter in a box

More Misconceptions

❑ Behavior analysis is passe,
no longer relevant

What About Mainstream Media?

Behavioral Interventions

Behav. Intervent. **28**: 299–321 (2013)

Published online 13 September 2013 in Wiley Online Library
(wileyonlinelibrary.com) DOI: 10.1002/bin.1370

AUTISM TREATMENTS IN PRINT: MEDIA'S COVERAGE OF SCIENTIFICALLY SUPPORTED AND ALTERNATIVE TREATMENTS

Kimberly A. Schreck*, Melissa Russell and Luis A. Vargas

Penn State Harrisburg, 777 West Harrisburg Pike, Middletown, PA 17057, USA

What About Mainstream Media?

- ❑ They reviewed 10 years (2000 – 2010) of publications in the US:
 - 5 Newspapers, 5 Magazines, highest circulation
 - Keyword mentions: positive/negative statements comparing ABA to Alt treatments

What About Mainstream Media?

- ❑ 2000:
 - 52% of all positive statements were about Alt Tx,
 - 48% of positive statements were about ABA
- ❑ 2010:

What About Mainstream Media?

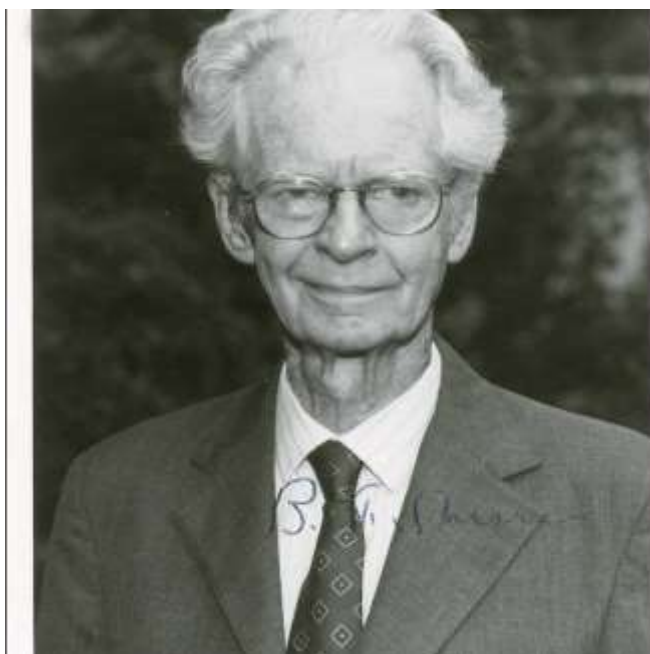
❑ 2000:

- 52% of all positive statements were about Alt Tx,
- 48% of positive statements were about ABA

❑ 2010:

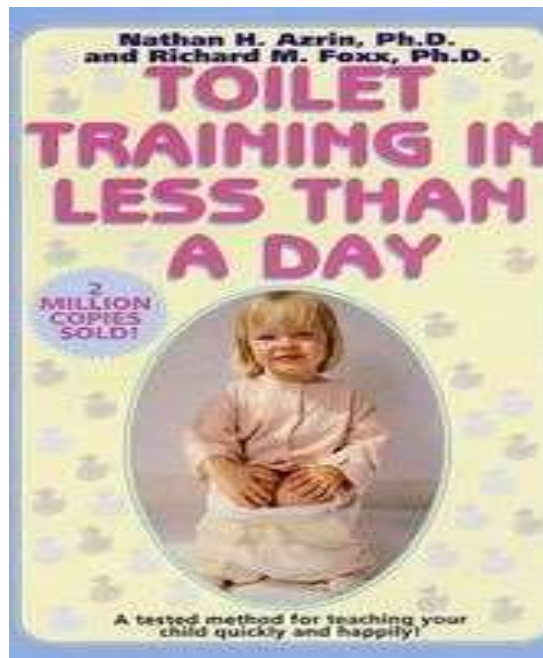
- **Alt Tx: 84%**
- **ABA: 16%**

What Do
Images in Google
Have to Say?



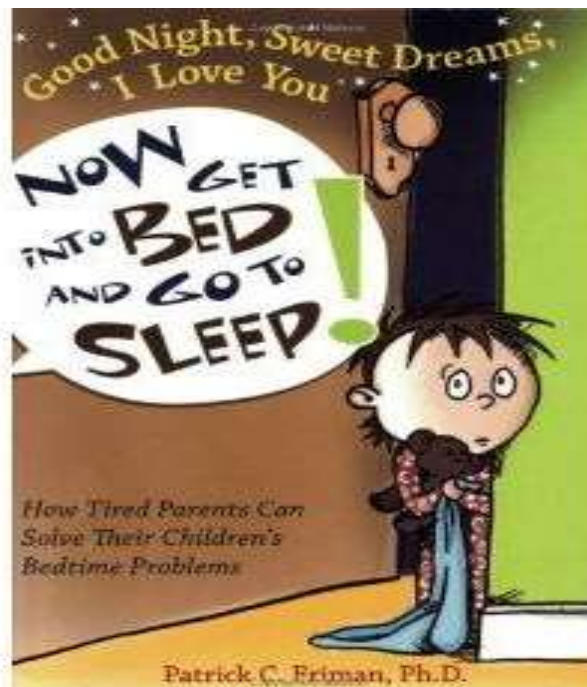


But then – there is the
best selling book of all
time on behavior analysis



Daytime Enuresis

- ❑ Friman (2010). Come on in, the water is fine: Achieving mainstream relevance through integration with primary medical care.
- ❑ Nighttime enuresis: Lots of literature
- ❑ Daytime enuresis: Almost nothing



Pediatricians

- ☐ They see the problem first
- ☐ Generally unaware of behavioral approaches
- ☐ Medications have unwanted side effects, but if they are the only tool in your toolbox...
- ☐ However, there are other tools...

Evidence-based Practices

1. Kegel exercises

- Pelvic Floor (Levator ani) muscles

2. Use of urine alarm



One Example of a Multi-component Treatment

1. Rule out medical causes
2. Address any psychological/learning complications (skill deficits, other diagnoses)
3. Eliminate all punishment
4. Focus on specific causes if known
5. Establish a schedule based on assessment

Daytime Enuresis Tx, continued

6. Teach start-stop exercises (Kegel).
Require practice at least qd.
7. Purchase/use vibrating urine alarm in home.
8. Establish a monitoring system for accidents/accident-free periods
9. Establish and use a reward system for accident-free periods (e.g., dot-to-dot)

We Can Translate Our Covenant:

- ☐ Help people be more independent:
Autonomy
- ☐ Help people live richer lives:
Participation and fulfillment
- ☐ Help people learn to do new things
and experience new things:
Empowerment

Our Goals, Translated

- ❑ Teach more effectively, and teach in ways that make those we teach want to learn more: *Growth* and *Love of learning*
- ❑ Help individuals identify their own life goals and reach those goals: *Freedom and Self-actualization*

Our Overarching Goal

Teach people how to get the things they want, the things they value, and do what they want to do more effectively, and without ever having to hurt themselves or other people.

□ “It is not a question of starting. A start has been made. It’s a question of what’s to be done from now on.”

-- B.F. Skinner, *Walden Two* (1948)

References (Page 1 of 8)

1. American Psychological Association (2010). Ethical principles of psychologists and code of conduct. Washington, DC: Author. Retrieved February 1, 2017 from <http://www.apa.org/ethics/code/>
2. American Psychological Association (2003). Facilitated communication: Sifting the wheat from the chaff. Washington, DC: Author. Retrieved February 26, 2017 from <http://www.apa.org/research/action/facilitated.aspx>
3. Ayers, A. J. (1972). *Sensory integration and learning disorders*. Los Angeles CA: Western Psychological Services
4. Ayers, A. J. (1974). *The development of sensory integrative theory and practice*. Dubuque, IA: Kendall/Hunt
5. Azrin, N. H., & Foxx, R. M. (1989). *Toilet training in less than a day*. Pocket Books: (originally published in 1968)
6. Behavior Analyst Certification Board. (2014). Professional and ethical compliance code for behavior analysts. Retrieved on June 22, 2017 from www.bacb.com/ethics-code/
7. Benazzi, L., Horner, R. H., & Good, R. H. (2006). Effects of behavior support team composition on the technical adequacy and contextual-fit of behavior support plans. *The Journal of Special Education*, 40(3), pp. 160-170

References (Page 2 of 8)

8. Brodhead, M. (2015). Maintaining professional relationships in an interdisciplinary setting: Strategies for navigating non-behavioral treatment recommendations for individuals with autism. *Behavior Analysis in Practice*, 8, 70-78. Published online, 10 Feb 2015. DOI 10.1007/s40617-015-0042-7.
9. Bronner F, Harris RS, Maletskos CJ, Benda CE. The fate of intravenously injected radiocalcium in human beings. *J Clin Invest*. 1956;35:78–88.
10. Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., Sailor, W., Anderson, J. L., Albin, R. W., Koegel, L. K., & Fox, L. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Intervention*, 4(1), pp 4-16, 20
11. Cook L, Friend M. The state of the art of collaboration on behalf of students with disabilities. *Journal of Educational and Psychological Consultation*. 2010;20:1–8. doi: 10.1080/10474410903535398.
12. Epstein R., (Ed.), (1980). *Notebooks: B.F. Skinner*. Englewood Cliffs, NJ; Prentice-Hall.
13. Foxx, R. (1996). Translating the covenant: The behavior analyst as ambassador and translator. *The Behavior Analyst*, 19(2), pp. 147-161

References (Page 3 of 8)

14. Frazier, T.W., Youngstrom, E.A., et.al. (2010). Effectiveness of medication combined with intensive behavioral intervention for reducing aggression in youth with autism spectrum disorder. *J. of Child and Adolescent Psychopharmacology*, 20(3) (pp. 167-177).
15. Friman, P. C. (2014). Publishing in journals outside the box: Attaining mainstream prominence requires demonstrations of mainstream relevance. *The Behavior Analyst*, 37 (2), pp. 73-76. doi: 10.1007/s40614-014-0014-1
16. Friman, P. C. (2010). Come on in the water is fine: Achieving mainstream relevance through integration with primary medical care. *The Behavior Analyst*, 33(1), pp. 19–36.
17. Friman, P. C. (2005). *Good night, sweet dreams, I love you. Now get into bed and go to sleep!* Boys Town Nebraska: Nebraska
18. Galton, F. (1883). *Inquiries into human faculty and its development*. Macmillan: New York. Second Edition, 1907, J. M. Dent & Co. Retrieved from electronic edition, 2004, G. Tredoux ed. On 7/24/17
19. Goldstein, H. (2000). Commentary: Interventions to facilitate auditory, visual, and motor integration: "Show me the data." *Journal of Autism and Developmental Disorders*, 30, pp. 423-425.

References (Page 4 of 8)

20. Greenspan, S. I., & Weider, S. (2006). *Engaging autism: Using the floortime approach to help children relate, communicate, and think*. Cambridge, MA: Da Capo Lifelong Books
21. Greenwood, S., Perrin, A., Duggan, M. (2016). Pew Research Center. *Social Media Update 2016*. [2016-11-11].
<http://www.pewinternet.org/2016/11/11/social-media-update-2016/>
22. Hoffman, D. H., Carter, D. J., Lopez, C. R. V., Benzmilller, H. L., Latifi, S. Y., & Craig, D. C. (2015). *Report to the Special Committee of the Board of Directors of the American Psychological Association: Independent review relating to APA ethics guidelines, national security interrogations, and torture*. Chicago, IL: Sidley Austin, LLP. Retrieved 2/25/2017 from
<http://www.apa.org/independent-review/revised-report.pdf>
23. Hunt, P., Soto, G., Maier, J., & Doering, K. (2003). Collaborative learning to support students at risk and students with severe disabilities in general education classrooms. *Exceptional Children*, 69, 315-332. DOI: 10.1177/001440290306900304.
24. Jacobsen, J. W., Foxx, R. M., & Mulick, J. A. (2016). Facilitated communication: The ultimate fad treatment. In R. M. Foxx & J. A. Mulick (Eds.), *Controversial therapies for autism and intellectual disabilities: Fads, fashion, and science in professional practice, 2nd edition*, (pp. 136-153). New York: Routledge.

References (Page 5 of 8)

25. Kelleher C., Riley-Tillman T. C., Power T. J. (2008). Partnership-based consultation: Intervention design and its impact on treatment integrity. *Journal of Educational and Psychological Consultation*, 18, 294-324.
26. Kelly, A., & Tincani, M. (2013). Collaborative training and practice among applied behavior analysts who support individuals with autism spectrum disorder. *Education and Training in Autism and Developmental Disabilities*, 48, 120-131.
27. Lang, R., O'Reilly, M., Healy, O., Rispoli, M., Lydon, H., Streusand, W., Davis, T., Kang, S., Signfoos, J, Lancioni, G., Didden, R., & Giesbers, S. (2012). Sensory integration therapy for autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, 6, pp. 1004-1018.
28. Lilienfeld, S.O., Marshall, J., Todd, J.T., & Shane, H.C. (2014) The persistence of fad interventions in the face of negative scientific evidence: Facilitated communication for autism as a case example. *Evidence-Based Communication Assessment and Intervention*, 8:2, 62-101, DOI: 10.1080/17489539.2014.976332.
29. Mulick, J. A., Butter, E. M. (2016). Positive Behavior Support. In R. M. Foxx & J. A. Mulick (Eds.), *Controversial therapies for autism and intellectual disabilities: Fads, fashion, and science in professional practice, 2nd edition*, (pp. 136-153). New York: Routledge.

References (Page 6 of 8)

30. Nancarrow, S. A., Booth, A., Ariss, S., Smith, T., Enderby, P., & Roots, A. (2013). Ten principles of good interdisciplinary team work. *Human Resources for Health, 11*(19)
31. National Autism Center. (2009). National Standards Project Phase 1. Retrieved 7/4/17 from <http://www.nationalautismcenter.org/resources/>
32. Newhouse-Oisten, M. K., Peck, K. M., Conway, A. A., & Flieder, J. E. (2017). Ethical Considerations for Interdisciplinary Collaboration with Prescribing Professionals. *Behavior Analysis in Practice, 10*: 145-153. Published Online 05 Apr 2017. DOI 10.1007/s40617-017-0184-x.
33. O'Leary, P.N., Miller, M.M., Olive, M.L., & Kelly, A.N. (2017) Blurred lines: Ethical implications of social media for behavior analysts. *Behavior Analysis in Practice, 10*, 45-51. Published Online 06 Jan 2015. DOI 10.1007/s40617-014-0033-0.
34. Peters, M., & Heron, T. E. (1993). When the best is not good enough: An examination of best practice. *Journal of Special Education, 26*(4), 371-385.
35. Pyles, D. A., Muniz, K., Cade, A., & Silva, R. (1997). A behavioral diagnostic paradigm for integrating behavior-analytic and psychopharmacological interventions for people with a dual diagnosis. *Research in Developmental Disabilities, 18*(3), 185-214.

References (Page 7 of 8)

36. Reisman, J. (1993). Using a sensory integrative approach to treat self-injurious behavior in an adult with profound mental retardation. *American Journal of Occupational Therapy, 47*, pp. 403 – 411.
37. Ross, R. K., & Littleton, R.F. (2011). ABA and DIR/Floortime: compatible or incompatible? Presentation at Cambridge Center for Behavioral Studies Conference on Autism, 2012.
38. Schreck, K.A., & Mazur, A. (2008). Behavior analyst use of and beliefs in treatments for people with autism. *Behavior Interventions 23*, 201-212.
39. Schreck, K.A., & Miller, V.A. (2010). How to behavior ethically in a world of fads. *Behavior Interventions, 25*, 307-324.
40. Skinner, B. F. (2005). *Walden Two*. Indianapolis, IN: Hackett Publishing Company (Original work published 1948).
41. Slocum, T. A., Detrich, R., Wilczynski, S. M., Spencer, T. D., Lewis, T., Wolfe, K. (2014). The evidence-based practice of applied behavior analysis. *The Behavior Analyst, 37*, pp. 41-56
42. Smith, T. (2013). What is evidence-based behavior analysis? *The Behavior Analyst, 36*, pp. 7-33

References (Page 8 of 8)

43. Smith, T., Murzek, D. W., Mazingo, D. (2016). Sensory Integration Therapy. In R. M. Foxx & J. A. Mulick (Eds.), *Controversial therapies for autism and intellectual disabilities: Fads, fashion, and science in professional practice*, 2nd edition, (pp. 247-269). New York: Routledge
44. Sturmey, P. (2012). Treatment of psychopathology in people with intellectual and other disabilities. *Canadian Journal of Psychiatry*, **57**(10) (pp. 593-600).
45. Sturmey, P. (2002). Mental retardation and concurrent psychiatric disorders: Assessment and treatment. *Current Opinion in Psychiatry*, **15** (pp. 489-495).
46. Surgeon General. Mental health. A report of the surgeon general. Washington DC: US Department of Health and Human Services: 1999
47. U. S. Supreme Court, Buck v. Bell. 274 U.S. 200 (1927)
48. Watkins, C. L. (1995). Follow through: Why didn't we?. *Effective School Practices*, 15 (1)
49. Wilbarger, J., & Wilbarger, P. (2002). Clinical application of the sensory diet. In A. Bundy, S. J. Lane, and E. A. Murray (Eds.), *Sensory integration: Theory and Practice*, 2nd ed., pp. 339 – 341. Philadelphia, PA: F. A. Davis.