The viewpoints contained herein represent the perspectives of each individual speaker and should not be considered the official position of the Association for Behavior Analysis International.

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Teaching must be intensive, urgent; designed and delivered for optimal effectiveness

For children who are behind to catch up, they simply must be taught more in less time. If the teacher doesn't attempt to teach more in less time... the gap in general knowledge between a normal and handicapped student becomes even greater. - Kame’enui & Simmons (1990, p. 11)
The Critical Importance of Science-Based Treatments for Autism
Richard Foxx, Ph.D., BCBA, Pennsylvania State University
The Critical Importance of Science-Based Treatments for Autism

Richard M. Foxx, Ph.D.
Science

- Direct testing of questions and hypotheses
- Operational definitions
- Measurement—direct, accurate, reliable, objective
- Controlled experiments to rule out alternative explanations
- Conclusions, implications, predictions based on data
- Replication is paramount
ABA and the Education and Treatment of Autism: The Evidence

- 40 years of success with individuals of all ages
- 45 years of success treating children
- Over 1000 peer reviewed, scientific articles reporting success
- Over 40 years of NIMH funding of ABA research
- Over 30 years agencies using ABA as the dominate intervention have provided nonresidential and residential education/treatment for thousands of children
- All individuals benefit
ABA and the Education and Treatment of Autism: The Evidence

- Only educational/treatment approach supported by The State of New York Health Department (1999) and the United States Surgeon General (1999)
- Meets the areas of agreement for effective intervention in autism
- No other treatment/educational approach meets the same standards of scientific proof
- No other treatment/educational approach produces similar outcome results
ABA and the Education and Treatment of Autism: The Evidence

- Competency requirement guidelines for delivery of ABA services are well established (ABA-International Autism Special Interest Group)
- Levels of certification of ABA practitioners have been in existence since 1999 (Behavior Analyst Certification Board)
- Investing in early intervention ABA is financially worthwhile whether the results lead to complete or partial effects (Jacobson, Mulick and Green, 1998)
Eclecticism is not the best approach to the Education of Children with Autism

- The eclectic practitioner is often an apprentice of many models but master of none (Heward, 2003)
- A little bit of everything and a lot of nothing often reduces eclecticism to a recipe for failure (Kauffman, 1997)
- Adding ineffective treatment (s) to an effective one may be detrimental (Smith 2005)
Eclecticism is not the best approach to the Education of Children with Autism (Heward 2003)

- The more models represented the greater the likelihood of including ineffective and possible harmful components.
- The most important and effective parts of each model might not be selected.
- Some components of a model may be ineffective when implemented in isolation.
- Elements from different models may be incompatible.
- An eclectic mix might prevent any model from being implemented continuously or intensively enough to obtain significant effects.
QUASI-CANONICAL OXYMORONS

ACT NATURALLY
CLEARLY MISUNDERSTOOD
NEW CLASSIC
PRETTY UGLY
PAID VOLUNTEER
GOVERNMENT ORGANIZATION

NONBEHAVIORAL TREATMENT
OF AUTISM
Assessing your child’s school program

(Anderson 2000)
Promising Practices
Developmentally Appropriate Practices
Frequent Practice Inhibits Creativity and is Boring
Teachers should create their own curricula and lesson plans rather than follow programs
ALARM WORDS AND PHRASES

- HIGHER-ORDER THINKING SKILLS
- WE DO ABA WHEN IT IS APPROPRIATE
- WE ARE INCLUSIVE
- BEHAVIORAL METHODS SEGREGATE
- DON’T PUT ALL YOUR EGGS IN ONE BASKET
- SELF-ESTEEM
POORLY TRAINED STAFF

• INADEQUATELY PREPARED TO DEAL WITH BEHAVIOR DISORDERS

• LACK TRAINING IN SYSTEMATIC INSTRUCTION TECHNIQUES

• DO NOT FULLY UNDERSTAND INDIVIDUALIZED CURRICULA

• CANNOT OBJECTIVELY EVALUATE PROGRESS

• UNABLE TO EFFECTIVELY MODIFY THE GENERAL CLASSROOM CURRICULUM
CHARACTERISTICS OF EFFECTIVE PROGRAMS

Based upon empirical evidence of effectiveness

Highly structured interventions

Functional assessment

Specificity in the development of objectives

Operationally defined targets
CHARACTERISTICS OF EFFECTIVE PROGRAMS

- Systematic use of instructional prompts
- Specific skills to be taught are identified
- Individualized reinforcement plans
- Behavior assessment of challenging behaviors
CHARACTERISTICS OF EFFECTIVE PROGRAMS

- DIRECT TEACHING OF SOCIAL SKILLS
- ACTIVE PROGRAMMING FOR GENERALIZATION
- INDIVIDUALIZED LESSON PLANS
- USES PEER TUTORING
- DEVELOPS TOLERANCE FOR DELAY OF REINFORCEMENT
CHARACTERISTICS OF EFFECTIVE PROGRAMS

• OBJECTIVES DETERMINED WITHOUT REFERENCE TO DISCIPLINES
• CRITERIA FOR ACHIEVEMENT OF OBJECTIVES
• OBJECTIVE MEASURES OF PROGRESS
• ONGOING MEASURES OF PROGRESS
• SERVICES WRAPPED AROUND CHILD
CHARACTERISTICS OF PARENTS WHOSE CHILDREN HAVE SUCCESS

• DON’T RELY ON ANCEDOTAL INFORMATION
• TAKE IEP HOME AND READ CAREFULLY
• HAVE A BEHAVIOR ANALYST ACCOMPANY THEM TO THE IEP MEETING
• REQUIRE ACCOUNTABILITY
• SEEK FREQUENT MEASURES OF PROGRESS
• OBTAIN TRAINING TO ALLOW REPLICATION AT HOME
CHARACTERISTICS OF PARENTS WHOSE CHILDREN HAVE SUCCESS

- Make data collection a requirement
- Provide input on program design
- Have external monitoring
- Relate objectives to child’s home and community needs
- Are active and spend time at school
Antiscience

- Outright rejection of scientific method
- All “perspectives” are equally valid
- Subjective beliefs as useful as demonstrated facts
- No objective reality; everything is “socially constructed”

(Green 1998)
Factors that make practitioners prone to accept fad, dubious, or pseudoscientific interventions

- Search for a magic bullet, conventional interventions don’t cure
- Disinterest in science, empirical validation, reliance on agreement with peer’s or persuasive authority figures
- Increase focus on values in clinical/educational decision making, ignoring contraindications of effectiveness of specific interventions
Factors that make practitioners prone to accept fad, dubious, or pseudoscientific interventions

- Problem differentiating between progressive philosophy and indications of intervention effectiveness
- Federal educational agencies acceptance and support of process over outcomes, and dubious practices
Fad treatment characteristics

- Rapidly increase in use
- Become pervasive
- Rapidly decrease over time after extended use
- Promoted or adopted based on testimonials from recognized, otherwise authoritative professionals in a field who state that a highly effective method has been found to alleviate major problems
- No creditable evidence is offered
Fad treatment characteristics

- Disseminated by well-meaning professionals and others who have no skills, training, background or inclination to determine if there is valid research support
- Sometimes decreased use results from the publicizing of disconfirming valid research or replacement by a newer fad addressing the same problem
- They are never completely abandoned; often being supported by a small group of true believers or rediscovered as novel and in some cases renamed
Facilitated Communication: The ultimate socially toxic fad

Requires belief in communicative ability before it can be demonstrated

Testing discouraged as “confrontational or demeaning

Inconsistencies with psychometric and behavioral data ignored

Hidden literacy is said to have occurred –but conventional literacy requires long study, practice, and social interaction and there is no evidence of this practice and interaction

Output is always consistent with facilitator’s knowledge as demonstrated in double blind tests
FC some reactions

- Isn’t FC wonderful
- FC enables children with autism to express themselves
- FC enables children to be included
- A simple technique unlocks a mind

- Is FC likely?
- How did the children learn to read and write?
- Who is really the author of the communication?
- Is it possible to type without looking?
Facilitated Communication: Why Science Matters Jon Pafferman 2003

- Facilitated messages accusing sexual abuse

- Families split up, parents and care workers jailed

- Non verbal children with autism go on to college with their facilitators
Characteristics of Dubious or Controversial Treatments

- Their underlying theoretical (or stated) rationales are baseless, or require assumptions of effectiveness.
- Little or no unambiguous evidence of effectiveness exists.
- Research on their use does not meet conventional standards of quality or specificity.
- There are much simpler explanations of the superficial effects of their use.
- Supporters often attack the integrity of those who question whether the treatment works.
Characteristics of Dubious or Controversial Treatments

- Therapies are dubious when their rationales and purported effects are poorly substantiated.
- Therapies are controversial when advocacy for their use persists despite flimsy evidence regarding their rationale or impact.
- These treatments may be recognized and dismissed by professionals in disciplines that do not commonly use them but accepted by disciplines that do use them. In such cases, training programs in colleges and universities are the culprits that perpetuate these bogus practices.
Why pseudoscience flourishes in autism

- Nature of the disorder
- Mystique, myths, and magic
- Authority granted to self-proclaimed experts
- Personal accounts and testimonials valued more than scientific data
- Mainstream views: Autism is forever; all therapies are equal: anything goes

(Green 1998)
Characteristics of Pseudoscientific Practices

- Based on inadequate research designs that cannot actually document the purported effects
- Stated in scientific terms but not actually based on findings from relevant and basic scientific research
Pseudoscience

- Extraordinary claims unsupported by objective evidence
- Vivid testimonials and anecdotes
- Risks minimized or denied
- Dissemination via self-published materials, workshops, advertising

(Green 1998)
Pseudoscience

- “Secret formulae” or unique talents
- Easy, quick, broadly effective
- New=good
- Promoters working outside areas of their expertise
- No scientific testing
- “Certification”
Claims of effectiveness from pseudoscience articles have these characteristics

- Use only descriptive or qualitative methods and only one method for demonstrating a treatment effect
- Are conducted only by people who work together or who have a vested interest in confirming the effects
- Are not explicit about the procedures used
- Rely on anecdotal writing

- Do not use control groups or people as their own controls

- Do not include specific procedures for preventing confederates or assistants from influencing the findings inadvertently or that can be replicated easily by others
Pseudoscientific Practices Persist

- When practitioners adhere to outmoded methods that have been disconfirmed since their graduate training.
- When practitioners fail to consult the ever-expanding research base of their discipline in order to improve their own practices.
- When practitioners wholeheartedly and uncritically accept testimonial or anecdotal endorsement from prominent authorities.
- When some practitioners knowingly pursue the perpetuation of ineffective practices that are lucrative.
The Classics

- Psychomotor patterning
- Full inclusion for everyone
- Facilitated communication and telepathy
- Alternative medicine including energy and vibrational methods, pop psychology, magnetic field therapy
- Whole language
- Disability as a social construction
- Ideologically based practices
- Self-esteem
More Classics

- Sensory Integration Therapy
- Nutritional Fad treatments
- Megavitamins
- Auditory Integration Therapy
- Refrigerator mothers
- Secretin
Politically Correct Classics

Positive behavior support

Person centered planning

Nonaversive treatment

Gentle teaching
Positive behavior support and applied behavior analysis

J.M. Johnston, Richard M. Foxx, John W. Jacobson, Gina Green, and James A. Mullick

The Behavior Analyst, 2006
Characteristics of Politically Correct Treatments

- Based on rationales that are somewhat scientific, nonscientific, pseudoscientific, or even antiscientific in nature
- Are disseminated and adopted by professionals and managers because their purported nature and effects resonate with ideological perspectives
- Are disseminated and adopted by professionals and managers because their use contributes to the realization of tangible, socially progressive goals or objectives of service delivery
Characteristics of Politically Correct Treatments

- Offer financial and professional gain via obtaining large governmental grants or establishing a new field.
- Their rationale sometimes does not consider amelioration of problems but rather the appearance or possible enhancement of the social status of people with disabilities i.e., “to do the right thing.”
- Although in sync with political reasoning, they seldom resonate with the scientific findings within a discipline or with thoughtful and critical common sense.
Characteristics of Politically Correct Treatments

- Rely on political consensus rather than substantiated fact which means they can, in some cases, retard rather than produce the attainment of greater independence and community engagement of the people they seek to help.
- Can propel individual advocates to prominence despite the fact that their policies have little generality or are of small benefit.
- Because the end goals are political and social acceptance, rather than the attainment of known benefits achieved by validated means, PC advocates are among those most prone and motivated to disregard or derogate valid research findings that disconfirm their positions.
Laudable outcomes from Politically Correct Movements

- Nonaversive movement: accelerated changing treatment standards, championing functional assessment, focusing on antecedent control, and increasing focus on nonaversive procedures although most has been on the mild problem behaviors of children

- Can be effective and beneficial when they do resonate with scientific findings and critical common sense
WHY ARE PEOPLE GULLIBLE?
LANGUAGE
AD POPULUM

AN APPEAL TO POPULARITY

“BUT MOM, ALL THE KIDS ARE USING THESE TERMS”
“THE PASSION FOR ABSTRACTION”

Jerome Kagan
Three Seductive Ideas

GRAND TERM THAT FAILS TO SPECIFY THE CONTEXT IN WHICH THE TERM IS USED
THE LESS PRECISE A WORD THE GREATER ITS ACCEPTANCE AS A DESCRIPTOR
Every discipline wants to own or contribute something

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<th>Speech and hearing</th>
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<td>Psychology</td>
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IN HUMAN SERVICES AND EDUCATION

Strongly disagree with someone with little or no scientific training and he/she is likely to think of you as insensitive, immoral, and possibly evil.

Strongly disagree with someone who has a scientific background and he/she is likely to think of you as obtuse, wrong, foolish, or possibly a dope.
Books that examine movements/fads in the general culture that have or describe implications for Autism

- SHAM: How the self-help movement made America helpless
- One nation under therapy: How the helping culture is eroding self-reliance
- The death of common sense: How the law is suffocating America
- The language police: How pressure groups restrict what students learn
- The true believer: Thoughts on the nature of mass movements
THE UBIQUITOUSNESS

OF

THE

WORD
SUPPORTS

- The dominate descriptive term in education and human services comes from social work and has no relationship to science-based interventions.

- The widespread use of the term is a direct result of deinstitutionalization since social workers typically administer community agencies.

- Social workers are trained to provide supports.

- Providing supports does not require behavior change, skill acquisition, behavior reduction but rather the management of resources.
Reactions against scientific approaches such as ABA
Faced with real learning opportunities, our children’s natural strengths and enthusiasms are enlisted: perseveration becomes perseverance, attention-seeking becomes sociability, tantrums become determination, self-stimulatory activities become hobbies, noncompliance becomes self-direction, short attention spans become an ability to change one’s mind, splinter skills become talents, and we don’t need an army of ABA-certified trainers marching in to extinguish behaviors.
In Conclusion
What you can do

- Resist the seductions of fads, pseudo-scientific, and politically correct treatments
- Require accountability and sound data
- Be skeptical when evaluating treatments
- Support scientific-based treatments and research
- Read high quality, peer reviewed publications
- Speak up when the emperor is wearing no clothing
BECAUSE
When professionals waste public and private resources through the perpetuation of fad, dubious, controversial, ineffective, non-beneficial, politically correct, and sometimes damaging or depriving treatments, or advocate for disuse of effective and valuable treatments they claim to be unacceptable on political or other grounds, they diminish themselves as trusted professionals, their professions, and the individuals with autism they would purport to serve. (Jacobson, Foxx, and Mulick, forward to Controversial Therapies book)
DON’T LET THIS HAPPEN
References


Behavior Analyst Certification Board. www.BACB.com


References


References


References


New York State Department of Health Early Intervention Program (1999). *Clinical Practice Guidelines; Autism/Pervasive Developmental Disorders, Assessment, and Intervention for Young Children (Age 0-3 years).* Albany, NY.
