



# Evidence-Based Practice and Autism

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2/09



# Concepts Currently in Use

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Evidence-

Based

Research-

Supported

Empirically-

Validated

Scientifically-

**Treatments**

**Practice**

**Instruction**

**Interventions**



# Important Distinction

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## A. Evidence Supported Treatment (EST)

Most common use

Starts with treatment & asks if it works for a specific (narrow) disorder



# Important Distinction


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## B. Evidence-Based Practice (EBP)

Starts with client & asks how can we achieve best outcome—

We are doing A—


Should do B



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EST is most common but for too narrow for psychology & especially autism


Should be doing EBP that includes all related research, assessment, diagnosis, prevention, treatment, & consultation



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EBP is not what researchers have studied. From the standpoint of research, one might say that there is evidence for specific interventions in the highly controlled contexts in which they are studied but not yet much evidence for EBP in the clinical contexts where judgments and decisions are made by individual clinicians informed by evidence, expertise, and patient considerations.

Alan E. Kazdin (American Psychologist, 2008)



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History & roots in issues affecting adult psychotherapy in early 1990's with encroachment of medications, especially for depression and beginning of managed care



# Chambless Criteria:

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1. Manual
2. Clearly specified client characteristics
3. Either 2 “good” group-design experiments or a large series of single-case design studies (later determined to be 9)
4. At least equivalent to another treatment (not just no treatment control)
5. Studies done by 2 independent investigators



## Much opposition:

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1. Did not reflect realities in the field
2. Little about client-therapist relationship
3. No conceptual basis required
4. Manual required



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Research suggests that sensitivity and flexibility in administering interventions produces better outcomes than rigid application of manuals or principles. Psychological services are most likely to be effective when they allow flexibility and are responsive to clients' strengths and preferences and client-therapist relationship

# Evidence-Based Practice (APA, 2006)

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EVT → EST → EBP

“The integration of the best available research and clinical expertise within the context of patient characteristics, culture, values, and preferences” (APA, 2006)



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Clinical expertise is essential for a psychologist to identify and integrate the best research evidence with the best clinical data, including information about the patient's characteristics. Clinical expertise also includes interpersonal expertise, involving the flexibility to be clinically effective with patients of diverse backgrounds and applicable to diverse cultures. Intervention should be respectful of people's world views, values, and capacities.



# History of the Concepts

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## **Education - 2001**

No Child Left Behind Act

“Scientifically-Based Research” (**SBR**)

Randomized Controlled Trials (**RCTs**)



# Education/SBR and Autism

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Autism not mentioned in **SBR**  
(Education) literature

e.g., What Works Clearinghouse  
(<http://ies.ed.gov/ncee/wwc/>)



# Psychology/EST and Autism

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Autism not mentioned in early stages of **EST** (Psychology) literature until 1998

*Journal of Clinical Child Psychology*  
review: no treatment met EST  
criteria (Rogers, 1998)



# Evidence-Based Practice & Autism

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## Strengths

- Psychoanalytic Theories
- Testimonials and Fads
- Behavioral Skills and Cognitive Concepts
- Traditions, Trends, and Pressures in Education



# Evidence-Based Practice & Autism

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## Concerns

- Easily Measured Goals
- Written Manuals
- Randomized Controlled Trials (RCTs)
- Competition



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Should be looking for—

Series of studies—

- Conceptual framework

- Broad findings

- Meta-analyses

- Qualitative studies

Mechanisms

Mediators

Generalizability

Quality of Life



# TEACCH

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**T**reatment and **E**ducation of **A**utistic  
and related **C**ommunication-  
handicapped **C**Hildren

Theoretical Foundation:

Cognitive-Behavioral-Social Learning  
theory

# The Culture of Autism

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↑ Visual Strengths

↑ Attention to Details

↑ Routines

↑ Interests and  
Impulses

↓ Integrating Ideas

↓ Sequencing and  
Organizing

↓ Communication

↓ Time

↕ Attention

↕ Sensory  
Preferences and  
Aversions



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Sperry, L.A. & Mesibov, G.B. (2005)  
Perceptions of social challenges of  
adults with autism spectrum  
disorder. 9, 362-376.



# Evidence-Based Autism Literature (Psychology and Education)

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Areas of agreement among most approaches

- structure
- engagement
- language
- social skills
- family involvement

# Research Support for Strategies Used by TEACCH

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## Structure the learning environment

Schopler, Brehm, Kinsbourne, &  
Reichler (1971)

Rutter & Bartak (1973)

Odom et al. (2003)

Rogers (1999)



# Research Support for Strategies Used by TEACCH

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## Use visual supports

See Mesibov, Browder, & Kirkland  
(2002) for review

Boucher & Lewis (1989)

Krantz, McDuff, & McClannahan  
(1993, 1998)

Hume & Odom (2007)



# Research Support for Strategies Used by TEACCH

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Stimulate meaningful communication

Koegel, L.K. (1995)

Mirenda & Donnellan (1986)



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Mediators

Meaningful – Developmental Level

Interests



# Research Support for Strategies Used by TEACCH

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Respect and use special interests

Boyd (2006)

Baker, M.J., Koegel, R.L. & Koegel,  
L.K. (1998)



# Research Support for TEACCH – Comprehensive Program Generalizability

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Marcus, Lansing, Andrews, & Schopler  
(1978)

Short (1984)

Ozonoff & Cathcart (1998)

Paneri, Ferrante, & Zingale (2002)

Van Bourgondien, Reichle, & Schopler  
(2003)




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Rather than simply looking at treatment efficacy, which is the scientific evaluation of whether a treatment works, psychologists should be examining the generality of effects across patients, therapists, cultures, settings, and especially the feasibility of delivering treatments to patients in real world settings.



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# International Journal of Mental Health



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The central message of this task force report is the consensus achieved among a diverse group of scientists, clinicians, and scientists-clinicians requires an appreciation of the value of multiple sources of scientific evidence. In a given clinical circumstance, psychologists of good faith and good judgment may disagree about how best to weight different forms of evidence. For this reason, clinical decisions should be made on the basis of the best clinically relevant evidence with consideration of costs, benefits, available resources, generalizability, and feasibility of implementation. It should also consider individual factors and how they differ from person-to-person and change throughout the life span. Psychological outcomes should not only involve symptom relief, but also quality of life, adaptive functioning in work and relationships, the ability to make satisfying life choices, and other humane goals consistent with human dignity.

# References

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