# PSYCHOPHARMACOLOGY

## EVIDENCE-BASED PRACTICES

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**Panelist:** Manya Ralkowski, EdS, BCBA/LBA

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# Downloadable Tools

To access the downloadable tools, go to: Psychopharmacology's Resources and Tools

1. What is Evidence-Based Practice?
2. Article Literature Circles to Teach Language Development
3. Article in Academic Performance And Methylphenidate
4. Article in Autism and Medications
5. Article in Clinical Practice Guideline (AAP)
6. Article in Evidenced-Based Practice In Mental Health
7. EBP Report 2020 Table 4.3
8. EBP Self Assessment Tool 10-2017
9. Evidence-Based Practice (EBP)
10. Multiple Schedules of Reinforcement
11. NCAEP Report Table3.1 - EBP List
12. The EBP of ABA

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# Subject Matter Expert
# **Ronald T. Brown, PhD, ABPP**

Professor and Dean
School of Allied Health Sciences
University of Nevada

Dr. Ronald Brown, a noted expert on the topic of ADHD has served as the Associate Vice Chancellor for Academic (Health Affairs) at the University of North Texas System.

Dr. Brown completed his Ph.D. from Georgia State University and has been the past President of the Society of Pediatric Psychology and the Association of Psychologists of Academic Health Centers.

He is a board-certified clinical health psychologist and has been an active clinician, teacher, advocate and investigator. He served as a member of the Behavioral Medicine study section of the NIH and chaired several special panels at NIH. He currently serves as the Editor of Professional Psychology: Research and Practice.

Dr. Ronald Brown's area of specialization includes behavioral sciences, pediatric psychology, attention deficit disorders, neuropsychology, psychopharmacology, learning disabilities and psychosocial oncology.


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# Subject Matter Expert

# **Deborah P. Coehlo, PhD, C-PNP, PMHS, CFLE**

Founder and Director
Juniper Pediatrics

Dr. Debbie Coehlo is a certified Pediatric Nurse Practitioner and Pediatric Mental Health Specialist with a Doctoral Degree in Family Sciences and Human Development. She is the Founder and Director of Juniper Pediatrics, a clinic modeled after John F Kennedy's multidisciplinary system of care. Using a holistic, integrated care model, Juniper provides counseling, medication management and family therapy for children with ASD, ADHD and other childhood mental health disorders.

Dr. Coehlo completed her Master's in Nursing with a specialty in parent- child nursing. She spent 10 years working at the Child Development Center at the University of Washington in the Genetics Clinic and Multidisciplinary Clinic. In 1999, she complete her Doctorate degree in Human Development and Family Studies.

She continues to teach at the undergraduate and graduate level and had pursued research in the area of social networking, transitioning to out of home care for families, and child development.

Dr. Coehlo is a co- editor for the 4th and 5th edition of Family Health Nursing (F.A. Dais, 2010/2013) and has published several journal articles in the areas of families choosing residential care, families in transition, family health nursing, and care of children with special health care needs.

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Panelist

# Manya C. Ralkowski, EdS, BCBA, LBA, IBA

Instructional Leadership – Curriculum Specialist
Board Certified Behavior Analyst
Licensed Behavior Analyst
International Behavior Analyst

Ms. Manya Ralkowski has been practicing in the field of applied behavior analysis for over 27 years. Her training began under direct education and training from consultants from the Lovaas Clinic in Los Angeles while completing her bachelor of arts in Communication Disorders with endorsements in special education and psychology at Western Washington University. Ms. Ralkowski continued her education and training with a master's degree in Education from Lesley University and a graduate certificate in Applied Behavior Analysis from the University of Washington while working as an assistant teacher on the Project DATA grant at the Haring Center-Professional Training Unit. She also possesses a doctorate degree in Instructional Leadership.

Her extensive educational and clinical background has afforded her many opportunities to build programs where there were none. Ms. Ralkowski has brought many programs and change to the PNW as a Design Team member for Seattle Public Schools creating the first STEM school for the district, a district consultant creating and replicating inclusion programs across the region, and most recently a Clinical Director, starting up a school and home-based ABA program serving 10+ districts and over 20 communities regionally.

Since 1994, Ms. Ralkowski has been creating and designing ABA programs and educational services from San Diego up the coast and into BC, Canada. She has been trained in many ABA based methodologies including PRT, DTT, NET, Verbal Behavior, Precision Teaching, PECS, and naturalistic ABA. She brings together disciplines such as ABA, special education, speech pathology, psychology, and remedial reading instruction for a comprehensive program for each student, each family, each teacher, and each school to create stronger and more inclusive communities.


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# Learner Objectives

1. Describe strategies of conducting research (How).
2. List literature that provides evidence for treatment modality.
3. Identify the differences between empirical peer reviewed versus popular press.
4. Describe the process of identifying, analyzing and applying quality research (Critique).
5. Explore and discuss the most effective and evidence-based strategies to treat mental health disorders in children.
6. Apply examples of evidence based research to clinical cases.
7. Evaluate societal and cultural factors that may influence evidenced-based practices used to treat mental health disorders in children.
8. Analyze ethical issues arising when using evidenced-based practices to treat mental health disorders in children.
9. Examine approaches used to discussing evidenced-based practices with parents of children with mental health disorders.

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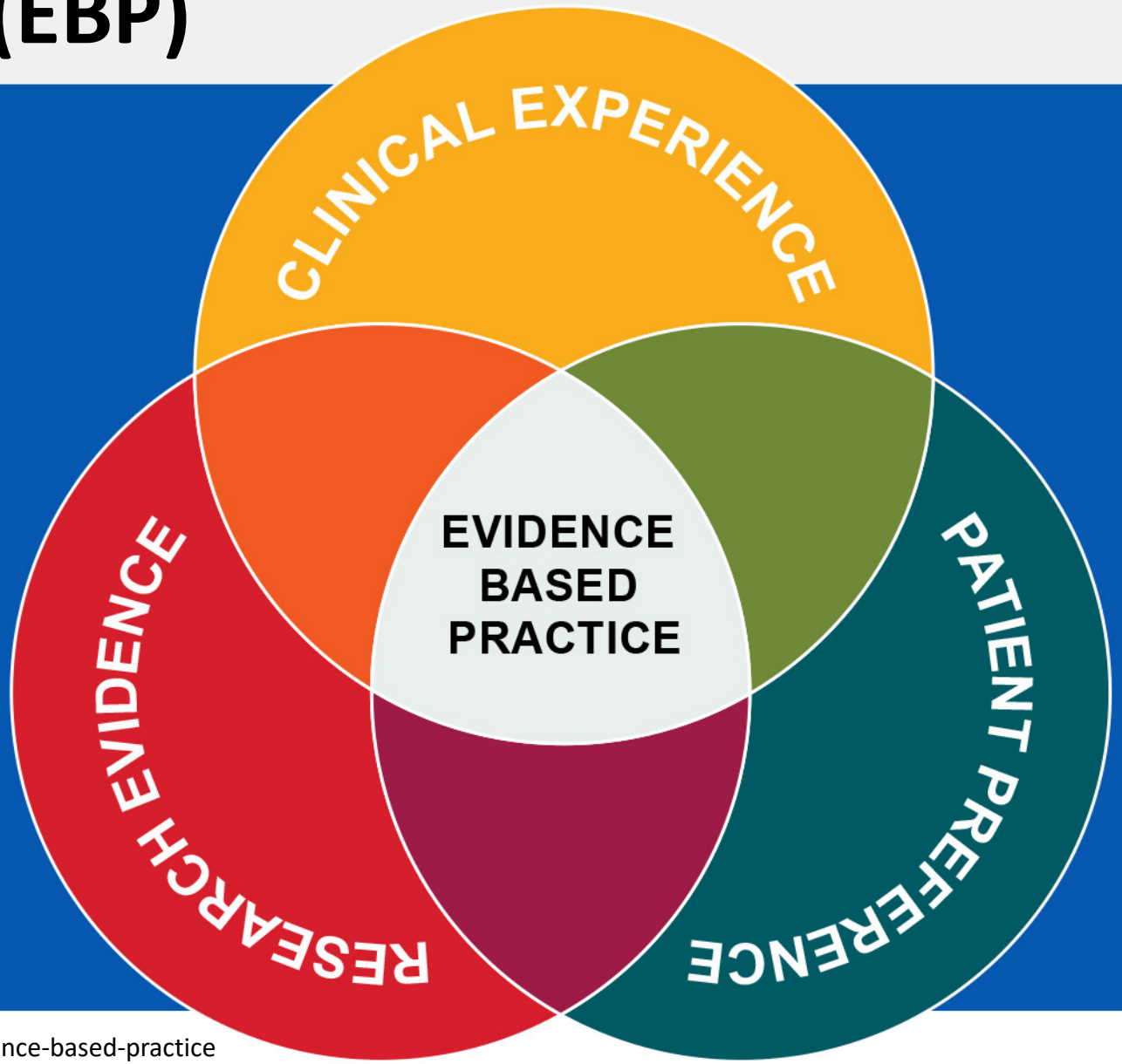
# Evidence-Based Practice (EBP)

## Definition:

- Interpreting research findings and applying those findings to clinical practice using clinical decision making.
- Replacing outdated practices with new practices based on research.
- Applying EBP requires consideration of patients/ clients' unique needs and preferences




Wilson & Austria, 2021: https://accelerate.uofuhealth.utah.edu/explore/what-is-evidence-based-practice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# History of Evidence-Based Practice in Mental Health and Children and Adolescents

- The concept of mental health in children did not reach the level of research until early 20th century
- Children's symptoms were treated the same as adults with similar symptoms.
- The first textbook on childhood mental health disorders was published in 1935.
- Research did not increase until the late 1980's
- Improvement in brain studies
- Improvement in the understanding that children are not just "little adults"
- It is estimated that only 20% of children with mental health disorders receive help.
- 4-8% of children and adolescents have severe psychiatric disorders
- The least likely child to receive services is a child living in poverty and a member of a minority group.

*Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001*

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# CASE STUDY

Ben was 6 years old when his mother brought him to be evaluated for concerns regarding excessive temper tantrums, developmental delays in social, communication, and fine motor skills, poor sleep, picky eating, and poor attention and focus. She noted that Ben was aggressive to family members and refused to interact or "even notice" peers. She stated her younger child (age 4) was afraid of Ben due to his aggressive behavior. She tried to enroll Ben in kindergarten, but he was "kicked out" after two days. The school recommended an evaluation and was also doing testing on Ben in preparation for an upcoming IEP meeting. Following a thorough evaluation, Ben was diagnosed with Autism Spectrum Disorder, Level 2, with concurrent Attention Deficit Disorder, developmental delays, and severe anxiety disorder. The team wondered what is the most recent evidence-based recommendations for Ben.


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# What EBP Should Be Considered?

- Behavioral strategies for ASD
- Behavioral strategies for ADHD
- Behavioral strategies for Anxiety disorders in children
- Educational strategies for ASD
- Educational strategies for ADHD
- Educational  strategies for Anxiety disorders in children
- Pharmaceutical strategies for ASD
- Pharmaceutical strategies for ADHD
- Pharmaceutical strategies for Anxiety disorders in children
- EBP for treatment for children with comorbid mental health disorders


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# Where to Start

Know the difference between professional, peer-reviewed, sources versus popular publications

Example: Harmful Effects of and Addiction to Ritalin by Cristina Utti MFA, MA found at https://ranchatdovetree.com/blog/harmful-effects-and-addiction-to-ritalin/

- Who is Christina Utti? And what are her credentials? She is a women with an MFA (Masters in Fine Arts) in Creative Writing, and a Doctorate in education.

- Errors: "It has also been proven that attention-deficit drugs increase concentration in the short-term, but when given to children over long periods of time, they neither improve school achievement nor reduce behavior problems. It has also been shown that such drugs are highly addictive and dangerous."

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# Compare to….

AAP GUIDLINES

Who are the authors:

*Mark L. Wolraich, MD, FAAP,a Joseph F. Hagan, Jr, MD, FAAP,b,c Carla Allan, PhD,d,e Eugenia Chan, MD, MPH, FAAP,f,g Dale Davison, MSpEd, PCC,h,i Marian Earls, MD, MTS, FAAP,j,k Steven W. Evans, PhD,l,m Susan K. Flinn, MA,n Tanya Froehlich, MD, MS, FAAP,o,p Jennifer Frost, MD, FAAFP,q,r Joseph R. Holbrook, PhD, MPH,s Christoph Ulrich Lehmann, MD, FAAP,t Herschel Robert Lessin, MD, FAAP,u Kymika Okechukwu, MPA,v Karen L. Pierce, MD, DFAACAP,w,x Jonathan D. Winner, MD, FAAP,y William Zurhellen, MD, FAAP,z SUBCOMMITTEE ON CHILDREN AND ADOLESCENTS WITH ATTENTION-DEFICIT/HYPERACTIVE DISORDER*

All statements have been carefully peer reviewed by a carefully selected committee including diverse pediatric specialist based on a thorough review of research over 10 years of published studies.

Important findings include; Children need a thorough assessment, including information from parents and teachers, and observation of the child. Diagnosis is based on DSM 5 criteria. 70% of children improve with treatment of ADHD with medications. The combination of medication and behavioral therapy improves outcomes. For preschool aged children, behavioral strategies are generally used first, although some children will require medication therapy as young as age 3-4 years.

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# Web Sites to Avoid

- .com: designed to sell a product
- Blogs: not peer reviewed and rarely based on scientific research
- Lay publications: not peer reviewed and written for entertainment and sales (i.e. People Magazine, or Ladies Home Journal)
- .org: Carefully evaluate. Some may be well respected professional organizations (i.e., National Council on Family Relations (NCFR.org), while others are special interest's groups or local interest's groups such ashttps://www.texastribune.org/2021/03/24/texas-gop-gun-laws/
- .edu: Most articles published by .edu are from educational sources, including k-12 schools to highly regarded universities (i.e., Harvard University).
- PubMed: A good source for peer reviewed articles: https://pubmed.ncbi.nlm.nih.gov/

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# Other Factors to Critique

- Who sponsors the research
- Sample size
- Demographics (age, gender, race, ethnicity, geographic location, education level, occupation, income, family structure, etc.)
- Methodology
  - Meta-analysis: Analysis of several peer reviewed research studies on one topic
  - Quantitative: Interviews, narratives, review of diaries and journals, ethnocultural experiences looking for themes
  - Qualitative: Structured interviews, questionnaires and surveys, measurements, and structured observations looking for relationships and predictability.
- Data analysis: Appropriate for the study and sample size?
- Discussion: Comparison to past research, limitations, clinical application

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# A note on *Review Articles* vs. *Meta-Analysis*

- Review articles summarize a number of research articles that cover one topic.
  - Example:

    *Goel, R., Hong, J. S., Findling, R. L., & Ji, N. Y. (2018).*

    *An update on pharmacotherapy of autism spectrum disorder in children and adolescents. International Review of Psychiatry, 30(1), 78–95.*
- Meta-analysis analyzes the results of multiple studies on a given topic, often re-analyzing the data, combining sample sizes.
  - Example:

    *Kortekaas-Rijlaarsdam, A. F., Luman, M., Sonuga-Barke, E., & Oosterlaan, J. (2019). Does methylphenidate improve academic performance? A systematic review and meta-analysis. European Child & Adolescent Psychiatry, 28(2), 155–164.*

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# Critique of A Review Article

*Goel, Hong, Finding, & Ji. (2018). An update on pharmacotherapy of autism spectrum disorder in children and adolescents. International Review of Psychiatry, 30 (1), 78-95.*

1. Is this a respected source? https://www.tandfonline.com/toc/iirp20/current

2. Is the review of literature relevant and updated? Studies reviewed included research from 1992 to 2017, covering 25 different medications and 110 research studies and consensus statements.

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# Main Findings

Several recommendations are limited due to few large research studies on children with ASD.

| Medication Classification | Number of Studies | Findings and Comments |
|---|---|---|
| Mood stabilizers/ Antipsychotics | Risperidone: 6<br>Aripiprazole: 4<br>All others: 8 | Most were superior to placebo in improving function. Most common SE somnolence and wt gain. Sample sizes <100 |
| Stimulants | Methylphenidate: 3<br>Atomoxetine: 2<br>Clonidine/Guanfacine: 2 | Most superior to placebo. Most common side effect was loss of appetite. Sample size <100 *(note Autism Speaks study not peer reviewed)* |
| Antidepressants/anti-anxiety | Fluoxetine: 2<br>All others: 3 | One study showed Fluoxetine superior to placebo in reducing repetitive behaviors. One study showed Buspirone superior to placebo in reducing repetitive behaviors. Sample size <100 |

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# Other Comments

- Many medications are being investigated from a theoretical point of view, with increased understanding of neurotransmitter function and parts of the brain impacted by ASD.
- Stay tuned for increased studies on Glutamatergic and gamma-aminobutyric acid (GABA) agents.
  - Example: Amantadine  (NMBA antagonist) has shown (in one study) improvements in hyperactivity and repetitive speech.

Read more....

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# Example: Professional Statements/Consensus Statements

- Statements that are organized and written by an accepted national organization or accepted nationally recognized researcher(s).
- Example: Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald. (2001). Evidence-based practice in child and adolescent mental health services. Psychiatric Services, 52 (9), 1179-1189.
  - Good review of the definition of EBP
  - Of note, is that this article argued that operational criteria for EBP should include two or more studies showing the treatment/medication is superior to placebo/ control group
    - Exception: Well established treatments (i.e., stimulants for treatment of ADHD)
    - Exception: If Case Studies are used, then 3 (behavioral interventions)-9 (medications) separate studies are needed.

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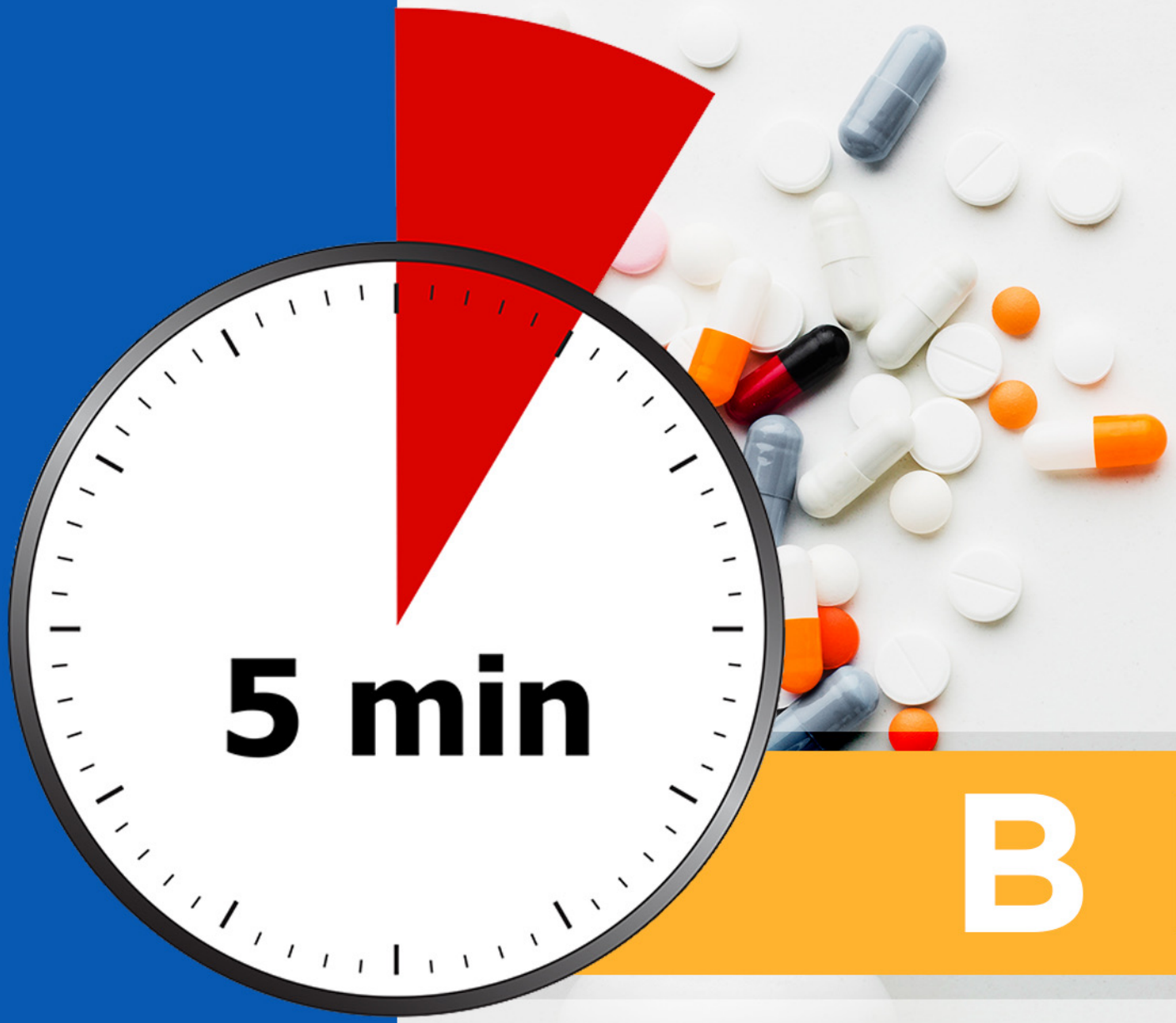
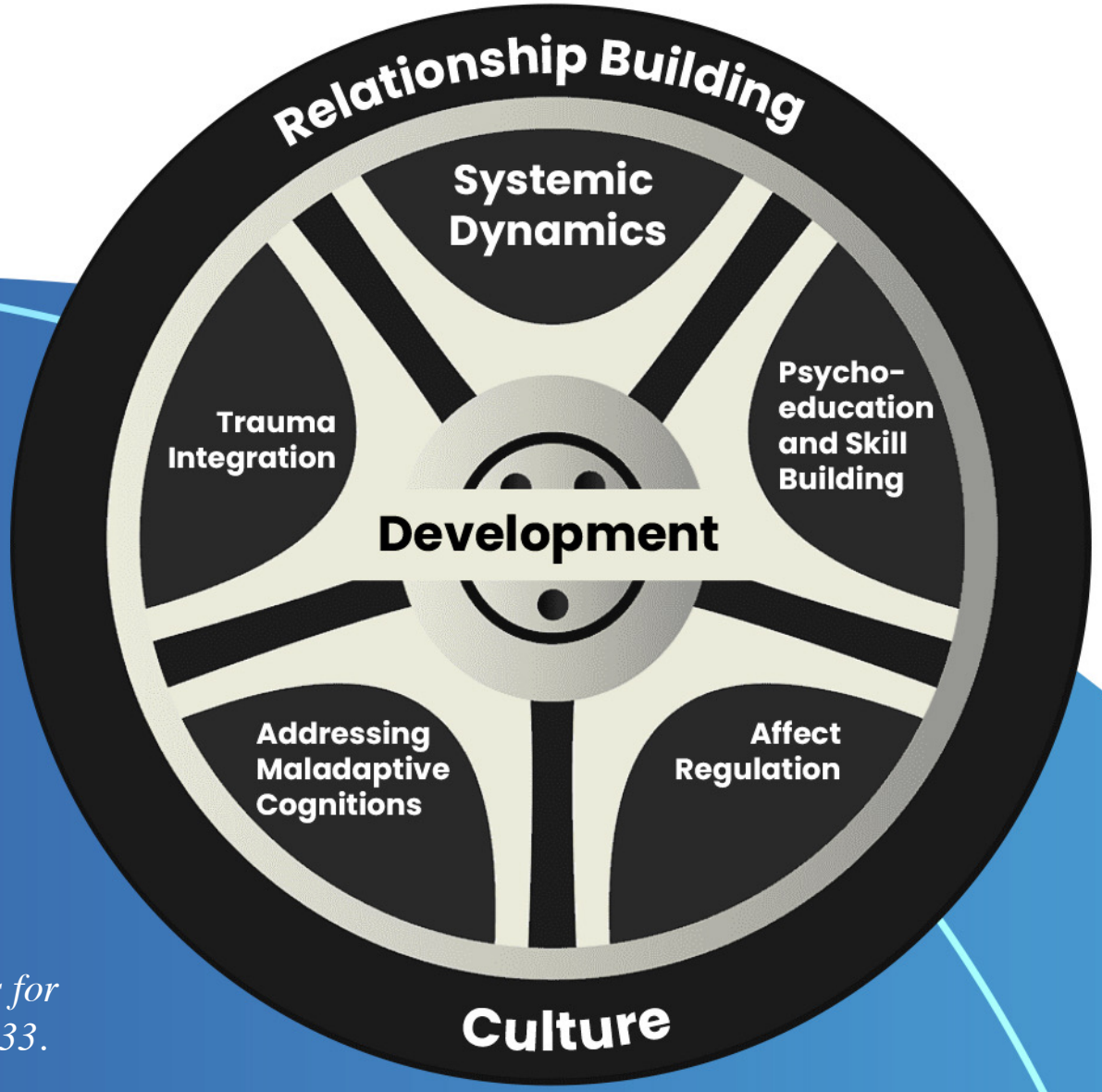



# BREAK

# EBP Treatment Wheel




*Igelman, R. et.al. (2007). Creating more trauma-informed services for children using assessment-focused tools. Child Welfare, 86(5), 16-33.*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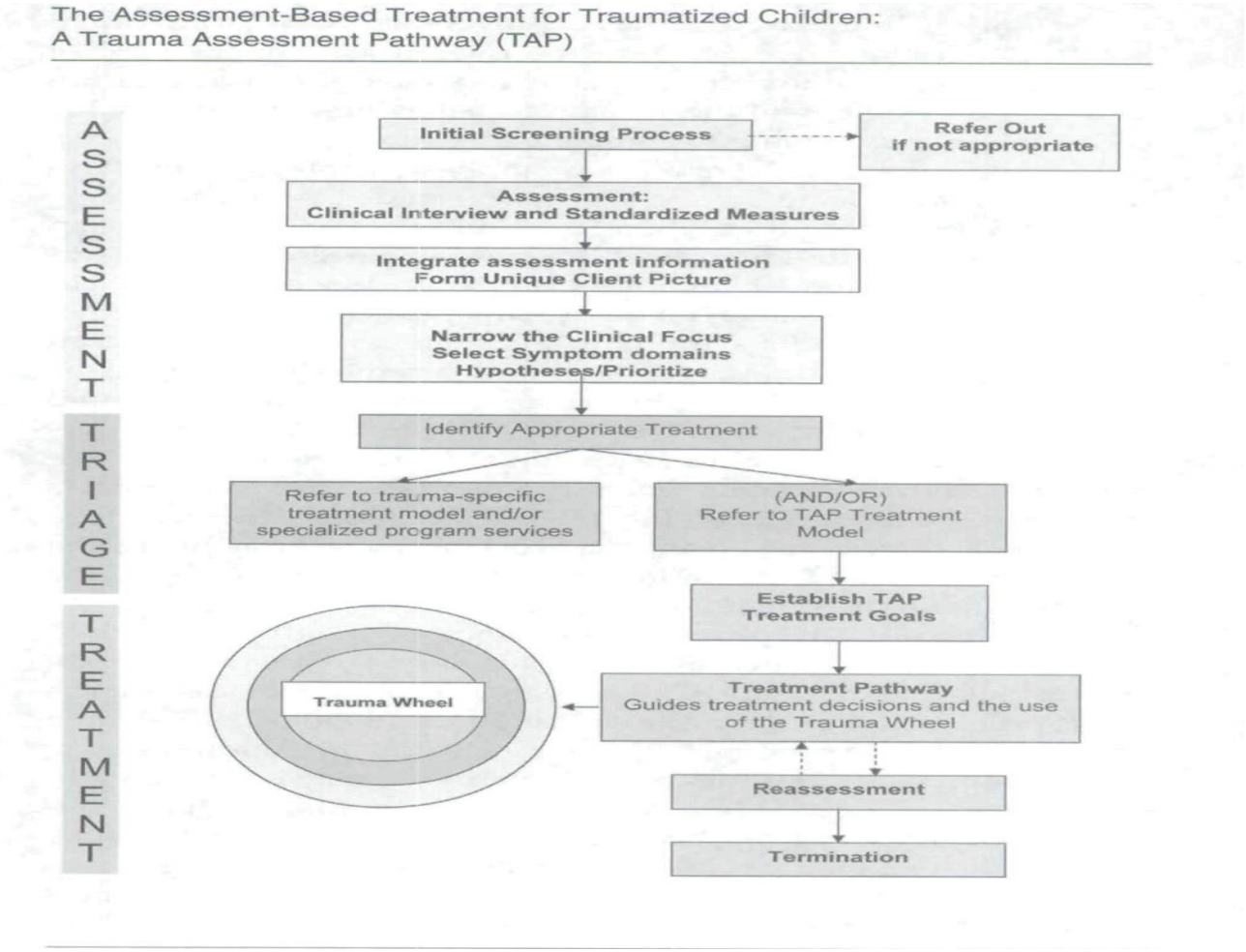
# Example of Model for EBP: Traumatized Children




*Igelman, R. et.al. (2007). Creating more trauma-informed services for children using assessment-focused tools. Child Welfare, 86(5), 16-33.*

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# Evidence-based Medications Used to Treat Depression and Anxiety Disorders by Age

| FDA-approved antidepressants for children and teenagers | | |
|---|---|---|
| Medication* | Age (in years) | Diagnosis |
| *Many of these drugs are also available in generic form. Recommended initial dose and maximum dose vary by age. | | |
| Clomipramine (Anafranil) | 10 and older | Obsessive-compulsive disorder (OCD) |
| Duloxetine (Cymbalta) | 7 and older | Generalized anxiety disorder |
| Escitalopram (Lexapro) | 12 and older | Major depressive disorder |
| Fluoxetine (Prozac) | 8 and older | Major depressive disorder |
| | 7 and older | OCD |
| Fluvoxamine | 8 and older | OCD |
| Olanzapine and fluoxetine, combination drug (Symbyax) | 10 and older | Bipolar depression |
| Sertraline (Zoloft) | 6 and older | OCD |

Mayo Clinic, 2021

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# Challenges for EBP

- **Behavioral treatments vs. medication treatments**
  - No governmental standard to behavioral treatments
  - FDA standards for medication treatments.
- **Importance of developmental considerations**
  - Treatments proved effective for an adolescent may be dangerous for a child that has not reached puberty (example: Lexapro (Escitalopram).
  - Most medications used to treat ADHD are approved for 6 years and older.

# CASE STUDY: Sean

**Demographics and background:**

- Age: 17, low functioning ASD with property destructive tendencies, functionally non-verbal, limited leisure and adaptive skills
- High School, self-contained classroom due to behavior
- Suburban district, family has long contentious relationship with district
- Intensive home ABA program collaboration, long history of accessing ABA services
- Regular collaboration with specialty group specializing in severe challenging behaviors
- Added sub-category to Diagnosis of ASD

**FBA and BIP Process – Towards EBP**

- Trigger: hearing the word "no", access restriction to preferred items, activities, people, as well being told to do something he did not want to do
- Multi-function: maintained by attention, escape, and access
- Challenging individual to work with, all team members had to be trained and retrained regularly on what words not to say to him as it would trigger severe escalations that would often result in property destruction, injured staff, and calls to 911


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# Towards EBP
in Behavior Strategies

**Collaboration, Teamwork, and towards EBP**

- Met with specialists regularly, however; this was a consultative model, not direct services.
- The Home Program BCBA was told to try multiple schedules... but what is this? How do we do this? Where do we start?
- The specialist recommended looking up particular research studies on the implementation of Multiple Schedules, offered particular researchers and journals to turn to look for. E.g, Hanley, JABA
- After reading numerous articles and methods of implementation of multiple schedule procedures, the BCBA was able to design a program that targeted appropriate responding to "no" in a training environment and generalized settings with increased success over time

Downloadable Tool provided – article explaining Multiple Schedules

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892965/pdf/nihms758272.pdf

**Overview of Procedure:**

- Two schedules of reinforcement, one was "Sean's Time" and the other was "Teacher Time"
- While it was Sean's time, he could ask for things and get access to the items. While it was Teacher time, he learned that he could not ask for things but instead got heavy levels of reinforcement for following teacher time rules/activities. During teacher time, his asking for items was put on extinction with a DRO schedule
- Step increases moved him towards longer times on the Teacher Time schedule, shorter times on Sean's Time schedule to reflect more naturally occurring routines
- This was generalized to numerous settings including grocery stores, department stores, park, etc.


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# Towards Evidence Based Practices – ABA and Autism Spectrum Disorders

## What are Evidence Based Practices?

- "An evidence-based practice is an instructional/intervention procedure or set of procedures for which researchers have provided an acceptable level of research that shows the practice produces positive outcomes for children, youth, and/or adults with ASD." – NPDC

- National Clearinghouse of Autism Evidence and Practice (NCAEP) - 1990-2017
- National Professional Development Center-Autism Spectrum Disorder (NPDC) - 2007-2014
- National Standards Project (NSP) - 2009-2015
- Autism Focused Intervention Resources and Modules (AFIRM)

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# What EBPs have been identified?

- NCAEP identifies 28 EBPs and 10 manualized interventions
  *(see downloadable tool for entire list and empirical support)*
  - Reviewed literature from 1990-2017
- NCAEP and NSP Overlap
  - 19 of the NCAEP EBPs were also identified as established interventions in the NSP report
  - 5 of the NCAEP EBPs were identified as emerging interventions (i.e., some evidence but not sufficient to be classified as an EBP
  - 4 of the NCAEP EBPs were not included in NSP
  - NSP identified Language Training as an established intervention and NCAEP did not
  - NSP also included Comprehensive Behavioral Treatment for Young Children and NCAEP did not

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# Selecting and Planning for Evidenced Based Practices in ABA

- NCAEP
  - EBP database – can enter age range and domain (e.g., play, cognitive, communication, etc.)
    - Provides a list of EBPs for that age and learning domain
    - Provides list of research/articles that will pop up for your review
- AFIRM
  - Provides learning modules, handouts, for download and how to select an EBP for individuals with ASD, birth-22 years of age

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# NCAEP (2020) and NSP (2015)

## Behavioral Strategies: Evidence Based Practices for Children, Youth, and Young Adults with Autism



Table 4.3 Overlap between evidence-based practices identified by NCAEP and NSP

| Evidence-Based Practices Identified (NCAEP) | Established Interventions Identified by NSP | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Behaviorial Interventions | Cognitive Behavioral Intervention Package | Modeling | Naturalistic Teaching Strategies | Parent Training | Peer Training Package | Pivotal Response Treatment® | Schedules | Scripting | Self-management | Social Skills Package | Story-based Intervention | Language Training (Production) | Comprehensive Behaviorial Treatment for Young Children |
| Antecedent-Based Intervention (ABI) | ✓ | | | | | | | | | | | | Language training did not emerge as a focused intervention by the NCAEP. Components of Language Training (Production) overlap with NCAEP identified practices that may support language production, such as modeling, prompting, reinforcement, visual supports, and music-mediated interventions. | The NCAEP did not review comprehensive treatment models. Components of the Comprehensive Behavioral Treatment of Young Children may overlap with many NCAEP identified practices, such as discrete trial training, modeling, prompting, time delay, and behavior momentum intervention. |
| Cognitive Behavioral Instructional Strategies (CBIS) | | ✓ | | | | | | | | | | | | |
| Differential Reinforcement (DR) | ✓ | | | | | | | | | | | | | |
| Discrete Trial Training (DTT) | ✓ | | | | | | | | | | | | | |
| Extinction (EXT) | ✓ | | | | | | | | | | | | | |
| Modeling (MD) | ✓ | | ✓ | | | | | | | | | | | |
| Naturalistic Interventions (NI) | | | | ✓ | | | ✓ | | | | | | | |
| Parent-Implemented Interventions (PII) | | | | | ✓ | | | | | | | | | |
| Peer-Based Instruction & Intervention (PBII) | | | | | | ✓ | | | | | | | | |
| Prompting (PP) | ✓ | | | | | | | | ✓ | | | | | |
| Reinforcement (R) | ✓ | | | | | | | | | | | | | |
| Response Interruption & Redirection (RIR) | ✓ | | | | | | | | | | | | | |
| Self-Management (SM) | | | | | | | | | | ✓ | | | | |
| Social Narratives (SN) | | | | | | | | | | | | ✓ | | |
| Social Skills Training (SST) | | | | | | | | | | | ✓ | | | |
| Task Analysis (TA) | ✓ | | | | | | | | | | | | | |
| Time Delay (TD) | ✓ | | | | | | | | | | | | | |
| Video Modeling (VM) | ✓ | | ✓ | | | | | | | | | | | |
| Visual Supports (VS) | ✓ | | | | | | | ✓ | ✓ | | | | | |
| Augmentative & Alternative Communication (AAC) | Identified as an emerging intervention by the NSP. | | | | | | | | | | | | | |
| Exercise & Movement (EXM) | Identified as an emerging intervention by the NSP. | | | | | | | | | | | | | |
| Functional Communication Training (FCT) | Identified as an emerging intervention by the NSP. | | | | | | | | | | | | | |
| Music-Mediated Interventions (MMI) | Identified as an emerging intervention by the NSP. | | | | | | | | | | | | | |
| Technology-aided Instruction & Intervention (TAII) | Identified as an emerging intervention by the NSP. | | | | | | | | | | | | | |
| Behavior Momentum Intervention (BMI) | The NSP did not consider this as a catergory for intervention. | | | | | | | | | | | | | |
| Direct Instruction (DI) | The NSP did not consider this as a catergory for intervention. | | | | | | | | | | | | | |
| Functional Behavior Assessment (FBA) | The NSP did not consider this as a catergory for intervention. | | | | | | | | | | | | | |
| Sensory Integration® (SI) | The NSP did not consider this as a catergory for intervention. | | | | | | | | | | | | | |

# Remember Sean?

**EBPS used in overall ABA Home program and collaboration at school:**

- Antecedent Based Interventions (ABI) - multiple schedules procedure
- Differential Reinforcement (DR) - multiple schedule procedure
- Extinction (EXT) - multiple schedules procedure
- Social Skills Training (SST)
- Discrete Trial Training (DTT)
- Pivotal Response Training (PRT)
- Task Analysis (TA)
- Functional Behavior Assessment (FBA)
- Reinforcement (R+)
- Time Delay (TD)
- Modeling (MD)
- Video Modeling (VM)
- Response Interruption/Redirection (RIR)
- Visual Supports (VS)
- Scripting (SC)
- Prompting (PP)
- Functional Communication Training (FCT)
- Parent Implemented Interventions (PII)


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# Other Considerations of EBP with Children

- Family influence
- Environmental influence
- Educational/school influence
  - Note. 70-80% of mental health services to children are provided by schools.

# Ethical Issues with EBP

- Studies underrepresent children from minority groups
- Studies over represent interventions in research facilities rather than community settings
- Studies for mental health in children and adolescents tend to include small sample sizes, and tend to be cross-sectional (rather than longitudinal)
- There remains a gap on studies with children and adolescents with comorbidities, receiving multisystemic interventions (i.e., WRAP services), involving family members, or measuring interventions across different settings.
- Use of medications off label is common due to lack of studies


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# Talking to Parents about Evidence-Based Practice

- Reviewing evidence, we do have about effective treatments.
- Clarifying when evidence does not yet exist.
- Teaching parents how to find peer reviewed, respected research rather than inadequate opinions:
  - Helping parents interpret research findings.
  - Respecting parents' efforts to read appropriate publications.
  - Providing references for further reading when appropriate.
- Talking to parents about off-label use of medications.

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- Psychopharmacology and Autism: May 12, 2021 (Recorded)
- Psychopharmacology and Mood Disorders: June 9, 2021 (Recorded)
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