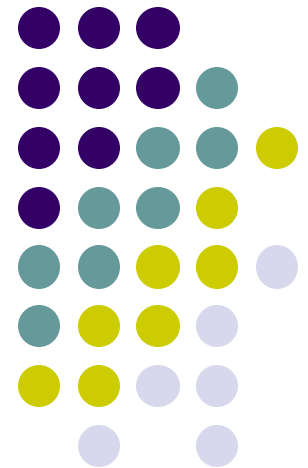
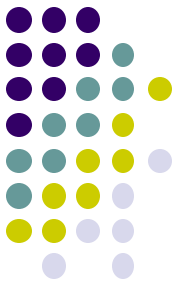


Intervention Intensity Matters!

*Panel Presentation
Autism Law Summit
October 2024 – Boise, ID*



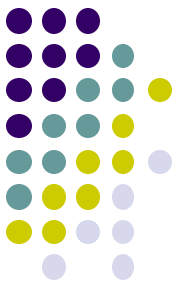


Panelists

Gina Green, PhD, BCBA-D
ABA Coding Coalition
Partners Behavioral Health

Tom Frazier, PhD
John Carroll University

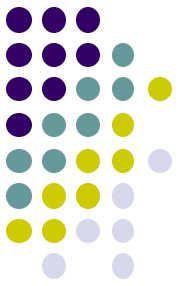
Sigmund Eldevik, PhD, BCBA-D
Oslo Metropolitan University



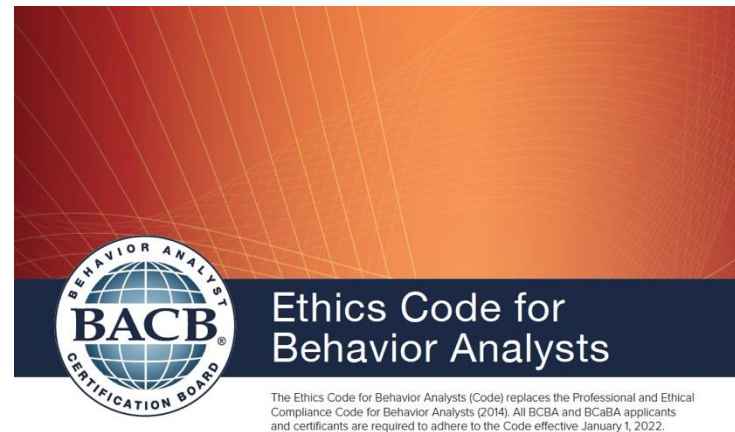
Why intervention intensity matters

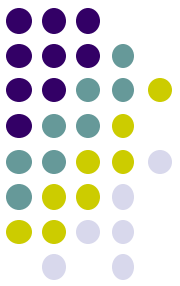
- Typically defined as # of hours of direct intervention per week
 - Better: # of learning opportunities or therapeutic interactions
- Many repeated learning opportunities are required for many behaviors to change and generalize across time, settings, people.
 - Especially true for individuals who
 - Are developing many new or complex repertoires
 - Have difficulties with attending, learning, and language

Why intervention intensity matters



- Behavior analysts are ethically obligated to provide treatment that is
 - effective
 - based on scientific evidence
 - designed to maximize benefits to client
 - individualized

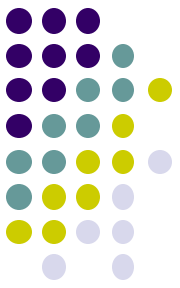




Why intervention intensity matters

- All aspects of health care services should be driven by *medical necessity*.
- Federal Mental Health Parity and Addiction Equity Act (MHPAEA): In determining medical necessity and coverage of services for mental health conditions (including autism), health plans are to rely on **generally accepted independent professional medical or clinical standards of care**.
 - Sources: peer-reviewed scientific studies and medical literature, recommendations of federal agencies, Food and Drug Administration approval, and **recommendations of relevant nonprofit health care provider professional associations and specialty societies**.
 - NOT payers, managed care orgs, private companies, or individuals

Generally accepted standards of care re: ABA intervention intensity



Applied Behavior Analysis Practice Guidelines for the Treatment of Autism Spectrum Disorder

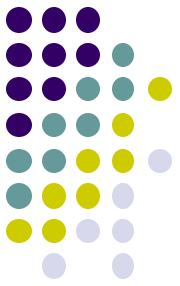
Guidance for Healthcare Funders, Regulatory
Bodies, Service Providers, and Consumers

THIRD EDITION

- CASP: independent nonprofit trade association
- Guidelines developed by many subject matter experts over a decade
- Intensity based on *medical necessity* and *scope of treatment*.
- Comprehensive intervention (multiple target behaviors in multiple domains): 30 - 40 hrs/wk for extended duration
- Focused intervention (small number of target behaviors): 10 – 25 hrs/wk. More may be needed if behaviors jeopardize health, safety, or progress.

“Patients should receive treatment at the intensity that is most effective to achieve treatment goals. Decisions to adjust treatment intensity should be individualized and based on the patient’s response to treatment.”

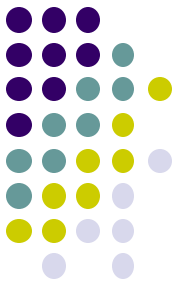
Sources of credible evidence of efficacy of ABA interventions



- **Scientific studies – key features:**
 - **Prospective** (vs. retrospective “chart reviews”)
 - **Design** with treatment and control or comparison condition(s)
 - Between-groups
 - Single case
 - Hybrid



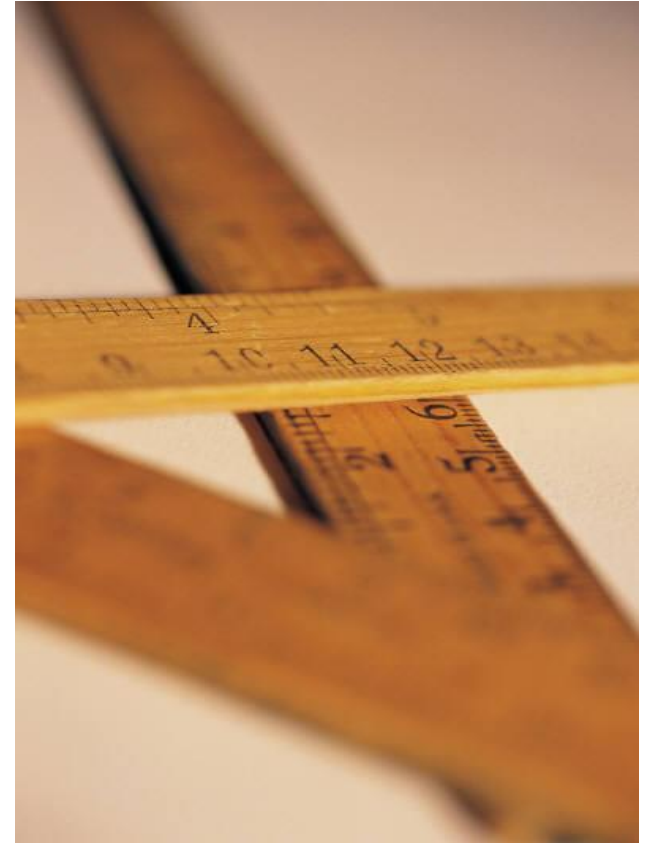
Scientific studies: Key features



- **Measures of effects:**
 - Standardized assessments
 - Norm- and/or criterion-referenced
 - Valid and reliable
 - Direct: administered to participants – e.g., autism characteristics; cognitive, communication, social skills

AND NOT JUST

- Indirect: completed by caregivers – e.g. Vineland and other rating scales, checklists
- Appropriate to participant characteristics, domains, research question(s)



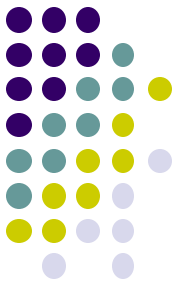
Scientific studies: Key features



- **Data analysis**

- Statistical analyses of group means (averages) and other group data
 - Summarize what happened to group(s) of participants as a whole
 - BUT obscure individual differences
 - Statistical significance \neq clinical significance
- Analyses of effects on individuals
 - Visual analysis of graphed data
 - Stats quantifying direction and magnitude of change(s)
- Both

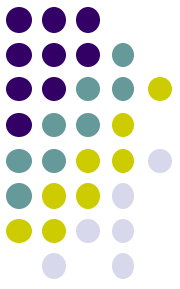
Best available evidence



- Preponderance of evidence from multiple scientific studies.
- Criteria for evidence-based interventions, National Clearinghouse on Autism Evidence and Practice:
 - At least 2 high-quality group-design studies conducted by at least 2 different researchers or groups OR
 - At least 5 high-quality single-case design studies conducted by at least 3 different researchers or research groups with a total of at least 20 participants across studies OR
 - A combination of at least 1 high-quality group-design study and at least 3 high-quality single-case design studies conducted by at least 2 different research groups

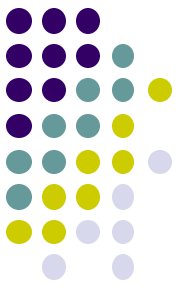


Meta-analysis



- Systematic method of combining results from multiple studies and conducting statistical analyses to estimate overall effect(s) of a particular intervention or variable on a defined outcome.
- Numerous meta-analyses of studies on focused and comprehensive ABA interventions for autism have been published.
- Results of meta-analyses vary with reviewers' backgrounds; studies included and excluded; nature of interventions; participants; dependent measures; data extracted; analysis methods; etc.
- Meta-analyses examining intensity of ABA interventions should include studies of
 - Interventions that clearly have defining features of ABA
 - Participants with similar characteristics
 - Preferably, focused interventions OR comprehensive interventions, not both

A non-exemplar



- Sandbank, M. et al. (2024) Determining associations between intervention amount and outcomes for young autistic children: A meta-analysis. *JAMA Pediatrics*, 178(8), 763 – 773.
- Several behavior analysts who examined article, studies included and excluded, analysis methods identified many issues.
 - In “behavioral” category, authors lumped together studies that varied across several dimensions:
 - Focused and comprehensive interventions (~ 70% focused - low intensity; excluded at least 7 studies of comprehensive intervention)
 - ABA and non-ABA interventions
 - Child and caregiver participants
 - Child participant characteristics (e.g., age, autism severity, cognitive and other skills)
 - Direct and indirect outcome measures
 - Calls into question authors’ conclusions that intervention intensity has no bearing on child outcomes, and any conclusions re: ABA interventions.
- Good exemplars coming next!