Establishing Rule-Following in Home, School, and Community Settings among Students with Autism and Related Disabilities

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Overview

- Define compliance and describe importance
- Assessment of compliance
- Antecedent-based interventions to increase compliance
- Consequence-based interventions to increase compliance
- Exercises
(Non)Compliance

• Doing what is requested in an adult-delivered instruction within 10 seconds

• The most common childhood behavior problem (McMahon & Forehand, 2003)

Why is Compliance Important?

• Is negatively correlated with a number of psychiatric diagnoses later in life (Keenan & Wakschlag, 2000)
Why is Compliance Important?

• For children with disabilities, may be correlated with academic progress (Wehby and Lane, 2009)

• Compliance is also predictive of the frequency and severity of problem behavior later in development (Keenan et al., 1998)
Why is Compliance Important?

- Considered to be a foundation skill (or a behavioral cusp) for learning a variety of more complex social, academic, and self-care skills (Lin, Lawrence, & Gorrell, 2003)
Assessment of Compliance

• Three things to assess:
  – Listener repertoire
  – Compliance to what? With whom?
  – Function of noncompliance

Assessment of Listener Repertoire

• Before intervening to increase compliance, assess the individual’s ability to appropriately respond to instructions / directions.
Add scanned VB-MAPP
Initial Assessment

• It is possible that the words used in an instruction fail to exert control over the response (noncompliance due to skill deficit)
• Of course, it is also possible that the reinforcer supporting compliance is either different from the type or class of reinforcement available or is insufficient (noncompliance due to improper motivation)
• Initial assessment should be designed to determine which of these is accurate
Skill Deficit vs. Motivational Problem

• Interventions for compliance problems due to a skill deficit will be different from interventions for noncompliance due to a motivational issue
  – Multiple exemplar training, prompting, reinforcement (Speckman, Greer, & Rivera-Valdes, 2012)
  – Interventions for compliance problems due to a motivational issue should be based on a functional analysis

Majdalany, Wilder, Allgood, and Sturkie (in press) developed a method to assess the extent to which a compliance problem is due to a skill deficit versus a motivational issue
  – Consists of three phases
    • Antecedent control assessment
    • Functional analysis (if necessary)
    • Treatment evaluation
Skill Deficit vs. Motivational Problem

• Antecedent control assessment (two parts)
  – Part 1: Assessment of listener behavior with respect to tacts
    • Measured extent to which participant touched low and high-preference items when asked to do so
  – Part 2: Assessment of listener behavior with respect to the verb used in instructions
    • Measured extent to which participant performed a task using 3 slightly different instructions for both low and high-preference items

Assessment of Compliance

• Compliance to what? With whom?
• Assessment should be designed to determine:
  – Frequency of (non)compliance
  – Individuals with whom the child or adult is likely to behave in a (non)compliant manner
  – Instructions most likely to occasion (non)compliance and consequences most likely to maintain (non)compliance
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When assessing the range of instructions for which noncompliance occurs:

- Give direct instructions
- Provide a specific amount of time for the child to respond
- Do not complete the instruction for the child
- Be sure to vary the order of instructions
- If assessing across caregivers, have each caregiver deliver same set of instructions
Assessment of Compliance

• Function of noncompliance
• Compliance is learned; Individuals behave in a noncompliant manner to
  – Get something they want (social positive reinforcement)
  – Avoid or escape something they don’t want (social negative reinforcement)

A number of models for functional assessment of (non)compliance exist:

– Stephenson & Hanley, 2010
– Rodriguez, Thompson, & Baynham, 2010
– Wilder, Harris, Reagan, & Rasey, 2007
– Reimers et al., 1993
Functional Analysis of Noncompliance

- Purpose is to determine the variable(s) maintaining noncompliance
- Consists of test conditions and a control condition
- Condition(s) with elevated levels of noncompliance relative to the control condition suggest maintenance
Functional Analysis Example

• Test for Positive Reinforcement – Attention Condition

  – Therapist presents instruction
    • Compliance = no attention
    • Noncompliance = verbal and physical interaction

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Functional Analysis Example

• Video Clip of FA Condition (Positive Reinforcement - Attention)
Functional Analysis Example

• Test for Negative Reinforcement – Escape Condition

  – Therapist presents instruction
    • Compliance = verbal and physical interaction
    • Noncompliance = task is removed

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Functional Analysis Example

• Video Clip of FA Condition (Negative Reinforcement)
Functional Analysis Example

• Test for Positive Reinforcement – Materials
  
  – Therapist presents instruction (child has access to preferred toy)
    • Compliance = no programmed consequence
    • Noncompliance = retain access to preferred toy

Functional Analysis Example

• Video Clip of FA Condition (Positive Reinforcement – Materials)
Functional Analysis Example

• Control for Positive Reinforcement – Materials
  – Therapist presents instruction to get toy (child does not have access to preferred toy)
    • Compliance = access to preferred toy
    • Noncompliance = no programmed consequence

• Video Clip of FA Condition (Control for materials condition)
Methods of Increasing Compliance

• Antecedent-based Interventions (manipulations before the instruction is presented)

• Consequence-based Interventions (manipulations after the instruction is presented)

Antecedent-based Interventions to Increase Compliance

Supported
– Make eye contact (Hamlet et al., 1984)
– Phrase as a statement, not a question (Bouxsein, Tiger, & Fisher, 2008)
– Present high-probability requests immediately before (Mace et al., 1988)
– Decrease the effort associated with compliance (Fischetti et al., in press)

Unsupported
– *Provide free access to a preferred item (Cote, Thompson, & McKerchar, 2005; Normand & Beaulieu, 2011)
– *Provide advance notice (Wilder, Nicholson, & Allison, 2010)
– Provide a rationale (Wilder, Allison, Nicholson, Abellon, & Saulnier, 2010)
Advance Notice

• Involves providing a “warning” or “advance notice” of an upcoming transition or instruction

  – Tustin (1995) showed that it was effective to increase compliance in a man with autism.
  – More recent studies show less support.

Advance Notice Example

• Video Clip of Advance Notice
AN EVALUATION OF ADVANCE NOTICE TO INCREASE COMPLIANCE AMONG PRESCHOOLERS

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Advance notice of an upcoming instruction was evaluated to increase compliance among 3 children (4 to 5 years old) who exhibited noncompliance. Results show that the procedure was ineffective for all 3 participants. Advance notice plus physical guidance or physical guidance alone was necessary to increase compliance.

Key words: advance notice, noncompliance, physical guidance, preschoolers, warning
Rationales

• Involves providing a reason for the child to comply, along with the instruction.

• Are often used with children, but until recently has been no data on their effectiveness
Rationales Example

- Video Clip of Rationales
Effort Reduction

• Involves decreasing the amount of effort required for an individual to comply with the instruction

• May start with a very low effort instruction and gradually increase

Consequence-based Interventions to Increase Compliance

• Time-Out (Rortvedt & Miltenberger, 1994)
  – High-Probability Sequence (Mace et al., 1998)
  – Guided completion of the response contingent upon noncompliance (i.e., guided compliance, three-step prompting, least-to-most prompting) (Cote, Thompson, & McKerchar, 2005; Wilder & Atwell, 2006)
  – Delivery of praise, a token, or a preferred food / activity contingent upon compliance (Russo, Cataldo, & Cushing, 1981; Schutte & Hopkins, 1970; Wilder et al., 2007)
High-P Sequence Examples

• Video Clip of High-P Sequence
• Experiment 1

• High-p sequence worked only when compliance with high-p instructions was followed by reinforcement

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• Experiment 2

• High-p sequence was most effective when high-quality reinforcer was delivered contingent upon compliance with high-p instructions

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Guided Compliance Examples

• Video Clip of 3-Step Guided Compliance
Guided Compliance Examples

• Video Clip of 2-Step Guided Compliance

Integrity of Guided Compliance

• Guided compliance procedures may only be effective if implemented consistently

• In the real world, caregivers rarely implement GC and other procedures consistently
Differential Reinforcement Examples

• Video Clip of Differential Reinforcement with Tokens
Integrity of DR for Compliance

• Like GC, the effectiveness of DR may vary according to the consistency with which it is implemented
• Errors of omission – failing to deliver reinforcement when scheduled to do so
• Errors of commission – delivering reinforcement when not scheduled to do so
Trying Multiple Interventions

- In some cases, the best approach is to try easy-to-implement interventions first, and then progress to other more complex or intrusive interventions if the easy-to-implement interventions are ineffective.

- We evaluated a reduction in effort, differential reinforcement (DR), guided compliance (GC), and then DR + GC.

Take-Home Points

- Compliance is a critical skill for children, particularly those with disabilities.

- Should be a focus of instruction at home, school, and clinic.

- Assessment of compliance should involve assessing the individual’s listener repertoire, the range of instructions to which compliance is a problem, and the function of noncompliance (if severe or accompanied by problem behavior).

- Methods that are supported by research and are described in this talk (e.g., guided compliance, differential reinforcement) should be used to teach compliance, beginning at an early age.
References and Suggested Readings


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Thank you

If you would like a copy of the presentation, e-mail David Wilder at dawilder@fit.edu

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