Accepting Oral Medication

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Teaching Oral Medication Acceptance

Need for Oral Medication
- Children with disabilities may need to take oral medication as prescribed by their physician
- Anti-convulsant medication
- Antibiotics
- Some medications are available in capsule or tablet form only
- Extended release formulas

Additionally, many parents are implementing complementary and alternative medicine (CAM)
- Nutritional supplements
- Anti-fungals
- When a pill camera is needed for an endoscopy, children who cannot swallow pills will require general anesthesia (Barth, Donovan, & Fox, 2004)
Issues for Children with Autism

- Some children with autism exhibit challenging behavior when asked to consume novel materials
- Thus, the need to teach children to accept oral medication

Common Training Procedures

- Positive Reinforcement
- Shaping
- Modeling
- Relaxation Training
- Corrective Feedback
- Capsule size shaping
- Oralflo cup

Procedures Used to Teach Acceptance of Oral Medication

- Dahlquist & Blount (1984) taught a 6-year-old girl to swallow pills in one 45-minute session
- Procedures included:
  - Verbal instruction
  - Modeling
  - Stimulus fading (candy hearts)
  - Reinforcement
- Maintenance and generalization were reported to both home and school
Procedures Used to Teach Acceptance of Oral Medication

- Blount, Dahlquist, Baer, & Wuori (1984) taught 5 of 6 participants to swallow oral medication
- Participants ranged between the ages of 6 and 14 years
- Procedures included:
  - Shaping
  - Modeling

Procedures Used to Teach Acceptance of Oral Medication

- Babbitt, Parrish, & Brierley (1991) taught 4 children with multiple disabilities to swallow capsules
- Procedures included: Verbal instruction, Modeling, Reinforcement, prompt fading, stimulus fading, “Ignoring” mild inappropriate behavior
- All 4 children learned to independently swallow capsules and maintained the skill over time
- Social validity (as reported by parents) was high

Procedures Used to Teach Acceptance of Oral Medication

- Yoo, Tarbox, and Granpeesheh (2008) taught a 6-year-old male to swallow a pill camera in order to complete an endoscopy
- Procedures used:
  - Stimulus fading
- Total treatment time:
  - 15 minutes baseline
  - 55 minutes treatment
Parent Implemented Procedures

- Reported parent implemented procedures to teach a 7-year-old male with HIV to swallow oral medication
- Needed medication in order to live
- Engaged in high rates of challenging behavior
- Functional assessment indicated behaviors were to escape taking oral medication
- Child reported he was scared of choking

Anderson et al, cont.

- Procedures used:
  - Stimulus fading
  - Reinforcement
    - Tangible reinforcers (stickers and candy)
    - Parent attention
    - Escape from "medicine table"

Initial Medical Screen

- Physician letter of approval to participate
- Other studies as appropriate
  - (e.g., Barium swallow)
Prerequisites to Pill Swallowing

- Compliance to simple commands
- Sit
- Drink
- Imitation
- Do this
- Graduation from feeding clinic
- Or no major feeding issues

Pre-capsule Size Fading

- Tapioca
- Black lentil
- Brown legume
- Mung bean
- Brown lentil
- Black bean
- Flageolet

Sample “Pill” Sizes
Capsule-Size Shaping

- Size 5 capsules (11.56 mm) (very difficult to find)
- Size 4 capsules (14.94 mm)
- Size 3 capsules (16.46 mm)
- Size 2 capsules (18.34 mm)
- Size 1 capsules (20.02 mm)
- Size 0 capsules (22.35 mm)
- PillCam (11 mm X 23 mm)

Capsule Sizes

Standard Protocol
Stimulus Fading + Modeling

- Begin with smallest pill size
- Tapioca (or cake decorations)
- Modeling
  - “Watch me”
- Your turn
  - SD “Take your pill and swallow”
- Child takes medication
- Praise is given
Modified Protocol (Shaping)

- In lieu of swallowing
- Touch lip
- Touch tongue
- In mouth and spit out
- Last step
- In mouth and swallow

Modified Protocol (DRA + EE)

- Differential Reinforcement of Alternative Behavior
  - “When you take your pill (or other target behavior if shaping), then you can have Dora video”
- Escape Extinction
  - Not allowed to get up from chair until behavioral expectation met

Data Collection

- Acceptance
- Mouth Clean
- Chewing
- Refusal
Method: Intervention

- Stimulus fading
- Shaping if needed
- DRA
  - Praise
  - Play breaks
- Escape Extinction

Mouth Cleans (Swallow)

Combined Inappropriates

Pill Size

Frequency
Summary

- Entire process is brief
- Few sessions needed
- Total Time is minimal
Discussion

- Need to better understand failures
- Fear? Aversion? Oral motor deficits?
- Would other protocols be successful
- Additional stimulus on spoon?
- Fading would eventually be needed