Communication Interventions for People with ASD: State of the Science and Recommendations for the Future

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Presented for:
Adventures in Autism Intervention and Research Conference
UNT Kristin Farmer Autism Center

Uniqueness of Communication Deficits in ASD

- Compounded by deficits in:
  - Social connectedness/orientation toward other humans
  - Understanding/using nonverbal communication
  - Responding restricted to particular stimuli
  - Complex communication needs

Access to Communication as a Basic Civil Right

- Communication is ubiquitous

Difficulty communicating leads to...

Evidence-Based Communication Interventions
- Behavioral interventions (prompts, task analysis, time delay, reinforcement)
- Augmentative and alternative communication interventions
- Functional communication training
- Naturalistic behavioral interventions (PRT, Incidental teaching)
- Modeling (video and in vivo)
- Peer-mediated interventions
- Visual scripts

Research Support: Skills Taught
- Supports limited communicative functions
- Behavior regulation
- Information exchange
- Social interaction
- Supports early phases of communication instruction
- Disproven concerns regarding AAC and speech

Research Support:
Participant Characteristics
• Primarily preschool and elementary ages
• More support with people with ASD without co-occurring conditions
• Girls/women tend to be underrepresented
• Little support for use of interventions with culturally and linguistically diverse learners

Research Support
• Small scale:
  • Much of the research has been conducted with small numbers of participants
• Limited contexts:
  • Only limited research has been conducted in natural settings/contexts
  • Instructional strategies tend to be didactic
• Mobile tech revolution...

High-Tech Versus No- or Low-Tech
• Limited research
• Little apparent difference in results between high- and low-or no-tech
  • Exception: unaided AAC
• This is an emerging area of research
Strengths of High-Tech-Based Interventions for Communication

- Social validity/acceptability
- Portability
- Affordability
- Increasingly intuitive
- Flexibility and just-in-time use
- Integrate communication with other tech tools

Mobile Tech-Based Interventions May Not be Suited for Everyone

- Preference
- Distractions on the device
- Difficulties with funding

Future Research Priorities

- Characteristics of participants
  - Large group studies
  - Adolescents and adults
  - Matching participant characteristics to interventions

Future Research Priorities

- Intervention packages
- Overlap between intervention components across packages
- Same thing, different name
- Multimodal communication interventions
- Expansion to broader communicative functions/skills
- Incorporating mobile technology

Future Research Priorities: Feasibility

- Ease of use and to program
- Likelihood of adoption and maintenance
- Implementation across settings/contexts for generalization and maintenance of skills
- Social validity/acceptability
- Treatment fidelity among natural communicative partners
- Costs (money and time for implementation and training)
- Preference of individual with ASD and caregivers

Future Research Priorities

- Improving standards in single-case research
- Procedural integrity/treatment fidelity
- Description of interventionists
Future Research Priorities

*Addressing unestablished/controversial treatments accepted by the public*

Final Issues

- Success of an intervention has a lot more to do with the intervention techniques than any particularly set of materials/technology
- Avoiding controversial/unproven "treatments"
- Communicative competence: People with ASD deserve to have access to the full range of communicative functions and broad vocabularies

References

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