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

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**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

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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

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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 different in results between high- and low- or no-tech
 - Exception: unaided AAC
- This is an emerging area of research

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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

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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

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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

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