

Preservice training of speech language pathologists in evidencebased AAC services

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The problem

- There is a critical shortage of speech language pathologists (SLPs) who have the competencies required to
 - Implement evidence-based practices (EBPs) in AAC to improve services and results for children with complex communication needs (CCN)
 - Implement appropriate & effective services for high need children with CCN
 - e.g., children who are English language learners and/or live in poverty

Prevalence of complex communication needs

- More than 12% of children receiving special education services have CCN (Binger & Light, 2006)
 - More than 834,000 children in the United States
 - Children with autism spectrum disorders, cerebral palsy, Down syndrome, traumatic brain injury, multiple disabilities, etc.
- Moreover the prevalence of children with CCN is increasing (Light & McNaughton, 2012)
 - Improved survival rates for children with developmental & acquired disabilities
 - Increased incidence of autism spectrum disorders, cerebral palsy, etc.

Children with high needs

- · Many children with CCN have high needs
 - Are English language learners
 - 40-44% of children served through IDEA come from families of diverse cultural and linguistic backgrounds
 - · Live in poverty
 - 21% of children in the USA live in poverty and are at risk in their education & development as a result
 - Poverty creates conditions that lead to increased vulnerability to disability

Augmentative and Alternative Communication

- AAC offers the potential for children with CCN to
 - Enhance communication
 - Increase participation at home and school
 - Improve educational achievement
- AAC includes
 - Unaided AAC systems
 - e.g., signs, gestures, etc.
- Aided AAC systems
 - e.g., low tech communication boards, speech generating devices, etc.

Lack of high quality AAC services

- Unfortunately many children with CCN do not receive the evidence-based AAC services that they require due to
 - · Lack of practicing SLPs with expertise in AAC
 - Lack of preservice SLP programs offering training in AAC
- Lack of effective service provision is particularly acute for high need children who require AAC

Negative impact on children with CCN

- Without effective research-based AAC interventions, children with CCN
 - Are limited in their attainment of communicative competence
 - Are severely restricted in their participation at home, at school and in the community
 - Are at significant risk for reduced educational expectations and exclusion from an appropriate education

Shortage of practicing SLPs with competencies in AAC

- 53% of SLPs in the schools serve children who have limited speech (ASHA, 2010)
- Many of these SLPs lack the competencies required to provide effective AAC services
 - 81-93% of practicing SLPs report that they did not complete a single course focused on the needs of children with CCN (Costigan & Light, 2010)
- SLPs report that lack of training in applications of AAC /AT & in services for English language learners are their "greatest professional challenge" (ASHA, 2010)

Lack of preservice training in AAC

- According to national surveys of preservice training (Costigan & Light, 2010; Ratcliff, Koul, & Lloyd, 2008)
- 18-35% of preservice programs do not offer any coursework at all in AAC
- Many of the programs that offer training in AAC, do so on a limited basis
 - 1-4 hours of AAC content infused in other courses
- Only a small percentage of programs offer full courses in AAC
 - Approximately half of these are not required courses

Lack of quality preservice training

- According to national surveys of preservice training (Costigan & Light, 2010; Ratcliff, Koul, & Lloyd, 2008)
 - 54-71% of preservice programs for SLPs do not employ faculty with expertise in AAC
 - 64% of programs report that faculty who are not experts in AAC typically teach the AAC courses

Impact of lack of preservice training

- Both the quantity & the quality of preservice training in AAC is severely compromised
- As a result, current graduates are often ill prepared to meet the needs of children with CCN
- Ironically SLP preservice programs provide the least amount of training to meet the needs of the children who present with the most complex communication needs

The Penn State Children's Communicative Competence Project

- The Penn State Children's Communicative Competence Project is designed to prepare MS scholars to
 - Attain all of the standard competencies required of SLPs for ASHA certification
 - Develop specialized competencies in the delivery of high quality evidence-based AAC services
 - Develop specialized competencies in the delivery of culturally appropriate services to high need children with CCN

Recruitment of MS students

- The Penn State Children's Communicative Competence Project provides funding support for a total of 21 MS students over a 6-year period
- Full tuition support
- · Monthly stipend
- Students are recruited on a national basis

Curriculum

- The Children's Communicative Competence Project curriculum is designed to provide scholars with training in EBPs for children who require AAC including those with high needs through
 - · Academic coursework
 - Research experiences
 - · Clinical practicum
 - · Web-based instructional modules

Academic courses in AAC

- MS scholars complete academic courses to build expertise in AAC evidence based practices:
 - AAC assessment and intervention planning for individuals with CCN
 - Research-based interventions for beginning communicators with CCN
 - Research-based interventions to build communicative competence, literacy skills, & educational achievement with school-aged children with CCN;
 - Culturally appropriate research-based services for high need children with CCN;

Academic courses in AAC

- Academic courses in AAC evidence-based practices
- Hands on lab in assistive technologies to promote communication and participation;
- Universal design for learning and curriculum adaptation to foster educational achievement of children with CCN;
- Effective strategies to work with consumers who use AAC and families of children with CCN;
- Research-based AAC services in early intervention & school programs, including collaboration with educators as members of multidisciplinary teams

Training in AAC research

- Academic coursework in research methods
- Training in responsible conduct of research
- Mentored research experiences
 - To increase EBPs and
- To improve outcomes for children with CCN

Clinical training in AAC

- Extended practicum experiences
 - Provide opportunities to translate research into effective EBPs with children with CCN
- 15-week full-time externship in early intervention /public schools reflecting wide diversity

Web-based instructional modules

- Web-based instructional modules in EBPs in AAC providing
 - Step by step intervention
 - Video examples
- Web-based modules for use in
- · Preservice training
- Inservice training

- http://aackids.psu.edu
- http://aacliteracy.psu.edu
- http://aac.psu.edu



Partnerships

- The Penn State Children's Communicative Competence Project curriculum was developed in partnership with
 - · Consumers who use AAC
 - · Parents /families of children with CCN
- · Departments of Education and technical assistance programs
- · Exemplary early intervention and school programs that serve high need children with CCN

Anticipated grant outcomes

- The Children's Communicative Competence Project will result in
 - 21 fully credentialed SLPs with specialized competencies to assume leadership roles in the provision of EBPs for children with CCN
 - More than 100 additional SLPs who develop competencies in EBPs in AAC through courses, research and/or clinical experiences
- More than 5,000 SLPs /educators who increase their knowledge of EBPs in AAC through the web-based modules

Anticipated grant outcomes

- The project will also result in
- Increased research in EBPs in AAC
 - 100% of scholars complete a research paper/ thesis to improve outcomes for children with CCN
 - · A minimum of 21 research papers/ theses in AAC

Preliminary outcome data

- Preliminary outcome data demonstrate that the grant is on track to meet its projected outcomes
- 100% of scholars have graduated or are on track to graduate
- 100% passed their praxis exams
- 100% are fully qualified

Preliminary outcome data

- 100% of graduates are employed in early intervention/ schools providing evidence-based AAC services to children with CCN
 - 91% of the goal attainment data for the children demonstrate positive progress
 - 100% of children & families express satisfaction with services

Preliminary outcome data

- 100% of scholars have completed AAC research papers/ theses
 - 85% have served as authors on peer-reviewed research papers or presentations at national/ international conferences

Preliminary outcome data



 In the past year, more than 75,500 preservice & inservice professionals & other stakeholders have accessed the Penn State web resources to increase their knowledge of EBPs in AAC

Benefits for children who require AAC

- Increased research in AAC results in improved EBPs for children with CCN
- Increased numbers of SLPs and other professionals with competencies in AAC result in
- Improved evidence-based practices for children with CCN, including those with high needs
- Improved outcomes for children with CCN and their families

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