A Research Review of Preservice Training in Augmentative and Alternative Communication for Speech-Language Pathologists, Special Education Teachers, and Occupational Therapists:

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Rationale

• The speech-language pathologist (SLP), special education teacher (SET) and occupational therapist (OT): are key members of the collaborative Augmentative and Alternative Communication (AAC) team
• Are likely to provide services to individuals requiring AAC
• In educating these “generalists,” there is increasing professional recognition of the need for AAC competencies upon graduation
• Only SLP professional bodies have defined these competencies
• KASA standards include knowledge and skills in evaluation, intervention, and interaction/personal qualities

As a result, there has been a call for AAC preservice training
• However, general concern exists over the lack of such opportunities

So, an examination of preservice AAC training is justified!

Goals of the Review:

• Examine research on preservice AAC training for SLPs, SETs, OTs (hereafter referred to as preprofessionals)
• Critically appraise this research
• Discuss implications for improving preservice AAC training
• Suggest directions for future research

Methods

Inclusion Criteria

• Publication in a peer-reviewed journal between 1985-2006
• Composition in the English language
• Use of primary research methodology to investigate:
  (a) characteristics; (b) effectiveness; (c) professional perspectives on AAC preservice training for SLP, SET, OT

Search Procedures

• Electronic search of CINAHL, ERIC, Medline, and PsychINFO
  - Key words “augmentative” + “communication” + one of “training”, “preservice”, “professional”
• Ancestral search of reference lists from electronic search

Search Results

All studies (n=15) were classifiable into one of three types:
• Surveys of educational institutions (n=4)
• Surveys of practicing professionals (n=7)
• Implementation studies of specific training programs (n=4)

Review Parameters

• Survey studies- (a) target population, sampling source & strategy; (b) response rate/number of participants; (c) results
• Implementation studies- (a) population/number of participants; (b) design; (c) instructional approach/targeted knowledge/skills; (d) dependent variable/measurement tools; (e) results

Results

• Amount of training available to preprofessionals is very low
  - Substantial proportion of institutions do not offer courses dedicated to AAC
  - 18.38% SLP, 19.49% SET, OT
  - OT institutions only offer AAC content through non-dedicated courses
  - Only 1-4 hours spent on AAC coverage in non-dedicated courses

• Amount of training pursued by preprofessionals is very low
  - 43-71% of SLPs report no exposure to AAC in preservice training
  - 81-93% of SLPs do not pursue a course dedicated to AAC
  - 29% of AAC courses for SETs
  - 8% of 20 hours or less dedicated to assistive technology for OTs

• Little insight into instructional approach, context, content.
  When reported:
  - Most training is offered at the graduate level
  - Most training occurs in the classroom
  - Few opportunities for lab or clinical experience
  - Most training is introductory
  - Introductory courses address symbols, assessment, intervention, technology and research
  - Secondary focus on technology-specific AAC training
  - Interdisciplinary programs are available to all disciplines
  - Represent ½ of the programs in implementation studies

• Little insight into effectiveness of training. When reported:
  - Only studies on training for SLPs address attainment of knowledge/skills, and/or competence for service provision
  - When measured, training generally results in increased knowledge and skill
  - Impact of changes in knowledge/skill on competence for service provision is not examined
  - A single survey addresses competence for service provision
  - 58% of students are unprepared to have AAC clients on caseload
  - Effectiveness often inferred from student perceptions
  - All reports find training well received

Discussion

Strengths and Limitations of the Research

• General paucity/age of studies prevents cutting edge conclusions
• 18% discrepancy in diversity of study purpose, population, geographic, and practice areas
• Makes formation of general conclusions difficult

• Conclusions are supported by low level of evidence:
  - 2 experimental studies and 13 observational studies

• Design and methodological issues limit confidence in results:
  - Concerns in survey studies include:
    - Incomplete/unrepresentative sampling leading to bias
    - Non-response leading to inflated measures of training availability
  - Concerns in implementation studies include:
    - Inconsistent use of randomization to treatment groups leading to bias
    - Lack of validity and reliability checks on measurement tools

Implications for Improving Preservice AAC Training

• Preservice training is likely inadequate to equip preprofessionals with the AAC knowledge/skills required for service provision
• ASHA has taken an initial step towards addressing this concern by identifying AAC competencies required of graduating preservice SLPs
• There remains a need to identify the necessary components of effective preservice training to ensure:
  - Development of these competencies
  - Improved outcomes for individuals who require AAC
• AAC preservice training should then be structured according to these components which may include:
  - Appropriate/adequate content:
    • Compulsory training should cover knowledge and skills that support a “generalist” level assessment, intervention, and interaction/personal qualities (e.g., familiarity with symbols, AAC systems, access)
    • Elective training should cover knowledge and skills that support “specialist” level practice (e.g., technological competence)
  - Increases in compulsory and elective training are necessary
  - Evidence-based instructional methodologies:
    • Problem-based/case-based, laboratory, and practicum approaches deserve consideration as effective clinical training techniques

Future Research Priorities

• Evaluation of effects of preservice training on AAC competencies in professionals and ultimately on skills of clients served are needed
• Measurement via skill acquisition, Goal Attainment Scaling
• Comparative studies of content, instructional techniques, and delivery methods are needed to determine the best techniques
• For SETs and OTs, first priorities include:
  - Identification of specific competencies for AAC service provision
  - Adoption of competencies through professional policy change

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References available on handout or via email. Contact Aileen Costigan at fac3@psu.edu
References


