

EMERGING ISSUES

CHALLENGES TO THE INFUSION OF GENETICS COMPETENCIES INTO SPEECH-LANGUAGE PATHOLOGY CURRICULA

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Introduction

The information explosion as a product of the Human Genome Project offers significant exciting opportunities for speech language pathologists and audiologists. The majority of the graduate programs in speech-language pathology either do not address genetics OR only review the elements related to genetics syndromes as a component of the craniofacial anomalies courses. This session addresses the premise that speech language pathologists need knowledge, clinical skills, and research in the area of genetics. A review of needs and some suggestions for implementation are provided in this session.

Curriculum

- Basic sciences
- Craniofacial anomalies
- Ethics and Genetics
- Clinical practice

Implementation Issues

- Varied education models and formats
- Competence of faculty regarding Genetics

Educational Needs

- The infusion of genetics across the curriculum
- Specific content in curricula of baseline knowledge of genetics
- National prioritization for core genetics competencies
- Funding assistance for implementation of recommended strategies

- Core courses for Health Professions
- Clinical practice
- Familial history
- Referral sources
- Diagnostics

Clinical Needs

- Clinical education about case history and obtaining genetic information
- Education of working on teams with genetic professionals
- Clinical skills that include application of information about genetic syndromes and disorders
- Infusion of genetics into clinical practice of prevention, diagnostics and intervention

Research

- Survey SLPs' preparation and competence in genetics
- Research of specific diseases and conditions with traditional genetic links

Research Needs

- Genetic aspects of communicative disorders
- Clinical research on the impact of genetics in prevention, diagnosis, and intervention of communication disorders
- Collaboration with other health care professionals and geneticists to conduct research

Current Status

- Limited items about genetics on the national examinations
- Limited information about genetics addressed in most academic programs
- Limited number of certified/licensed professionals with competence in genetics
- Presentation to SLP Graduate Program Directors – April 2001

- Workshops provided to SLPs at ASHA, NBASLH and FLASHA conventions in 2000
- Articles published in Asha Leader in 2000
- Genetics Research Institutes at ASHA

Where Do We Go From Here?

- Educate professionals- CEU's
- Educate students
- Collaborate with other health care professionals
- Publish articles that present the connection between genetics and the Health Professions
- Write grant proposals
- Training for preservice and continuing education
- Research for interdisciplinary translational research
- National Associations of Health Professions need to prioritize genetics and establish guidelines for education, clinical practice, and research - NOW!

Summary

Currently, few university graduate programs in speech-language pathology include a course on human genetics within the curricula. The majority of the graduate programs in speech-language pathology address genetics as a part of the craniofacial anomaly course. The advances and knowledge of the “new genetics” as a result of the Human Genome project are not being targeted for students matriculating in the graduate programs across the country. Few faculty members express adequate knowledge of genomics. Inservice training offered to ASHA certified professionals are presented at state and national conventions on a limited scale. An ASHA representative was on the HuGemII faculty. Additionally, a few articles that addressed Genetics have been written in the *ASHA Leader* and *Advance for Speech Language Pathologists*. Surveys of speech-language pathologists were conducted nationally and duplicated in the state of Florida regarding the respondents’ comprehension and utilization of

Genetics in clinical practice. The time to educate faculty, practicing clinicians and student is here. We need to also promote interdisciplinary research efforts in Genetics.

References

American Society of Human Genetics Information and Education Committee. (1995). ASHG Report from the ASHG Information and Education Committee: Medical School Curriculum in Genetics. *American Journal of Human Genetics*, 56, 535-537.

Willig, S., Moss, S., & Lapham, S.V. (2000). The new genetics: What does it mean to us? *The ASHA Leader*, 5, 4-5.