

## **A CLINICAL DOCTORATE IN MEDICAL SPEECH-LANGUAGE PATHOLOGY**

Malcolm R. McNeil, Ph.D.

University of Pittsburgh

The Department of Communication Science and Disorders of the University of Pittsburgh has been engaged in a discussion of the merits of a clinical doctorate in speech-language pathology over the past ten years. During the past three years a small group of faculty members have advanced a plan and a proposal for such a clinical doctorate. The motivations and general structure of this proposal were discussed at the Council Meeting in Palm Springs. The Proposal is currently in review at various levels of the university administration and has not yet received final approval for implementation. The motivations, the degree goals, the curriculum, and possible entry points into the program, along with the anticipated disciplinary advantages of offering such a degree are outlined below. Primary contributors to this proposal in addition to this author have been Cheryl Messick, Ph.D., Thomas Campbell, Ph.D., James Coyle, M.S., and George Carvell, Ph.D.

We perceived three primary internal/external trends in the discipline and the profession of speech-language pathology that justify the development of a clinical doctorate. These were (a) the current scope of practice, (b) the current breadth of knowledge, and (c) the intra and extra-professional demands.

### **Current Scope of Practice and Breadth of Knowledge**

The current scope of practice and breadth of knowledge associated with the practice of speech-language pathology exceeds that which can be acquired with the current master's entry-level educational time frame. Indeed, there has been a substantive growth in the referral and literature base required for the clinical diagnostic and therapeutic procedures provided by speech-language pathologists. The overwhelming majority of these populations/disorders were absent from the practice of speech-language pathology when entry-level training

rose to the Master's Degree in the 1960s. Examples include dysphagia, tracheostomy, ventilator dependent patients, voice and prosthetic voice management, surgical team membership, intensive care assessment and intervention, geriatric extended life populations, pediatrics intensive care, craniofacial and genetic based disorders, augmentative and alternative communication, pharmacological adjuvants to traditional therapies, and number of populations previously not served by SLPs (e.g., HIV-AIDS). The diagnostic and treatment procedures that form a routine part of many clinical practices include (but are not limited to) videofluorographic evaluation of oropharyngeal swallowing, fiberoptic endoscopic evaluation of swallowing function, ultrasonographic assessment of lingual function, deep tracheal suctioning components of assessment and treatment, combined surgical and behavioral management (Botox, myotomy), surface electromyographic biofeedback assessment and training, pharyngeal electrical stimulation, clinical dysphagia assessment of the tracheostomy patient, voice restoration of the tracheostomy, assessment and treatment for the ventilator dependent patient, insufflation testing of the pharyngoesophageal segment (laryngectomy); insertion, placement, fitting and management of the voice prostheses in patients with tracheoesophageal puncture, endoscopic fiberoptic laryngoscopy, stroboscopic laryngoscopy, electrical brain stimulation, transcranial magnetic cortical stimulation, phonosurgery, facial nerve electrical stimulation, neuromuscular reeducation, sodium amytal assessment (Wada), and cleft palate surgery.

In addition to an expanded demand for services to new populations, the scientific bases for this service have expanded at an even greater pace. Publications in the medical literature dedicated to medical speech-language pathology or in which such professionals routinely publish and derive relevant research and clinical knowledge has exploded. Few of these medical, psychological and speech-language pathology journals that are currently pertinent to the practice of speech-language pathology were either in existence, or relevant, to the profession when the entry-level for clinical practice was

increased to the Master's Degree. With only a cursory search, it was easy to identify 27 such journals outside of the discipline and 10 within the discipline in which SLP professionals publish and derive routine and relevant clinical information. Representative journals that were not in existence only a short time ago, but that are routinely read by practicing clinicians include (but are not limited to) *Journal of Voice*, *Journal of Medical Speech-Language Pathology*, *American Journal of Speech-Language Pathology*, *Aphasiology*, *Seminars in Speech and Language*, and *Clinical Linguistics and Phonetics*. Journals in which speech-language pathologists publish and in which they derive relevant clinical information include *Neurology*, *Annals of Neurology*, *Archives of Neurology*, *Clinical Neuropsychology*, *Cortex*, *Language and Cognition*, *International Neuropsychology*, *Brain and Cognition*, *Brain and Language*, *Brain Injury*, *Journal of Memory and Language*, *International Journal of Speech Technology*, *Dysphagia*, *Gastroenterology*, *Phonoscope*, *Archives of Physical Medicine and Rehabilitation*, *Heart and Lung: The Journal of Acute and Critical Care*, *Journal of the American Gerontological Society*, *Nutrition in Clinical Practice*, *American Journal of Physical Medicine and Rehabilitation*, *New England Journal of Medicine*, *Laryngoscope*, *Cleft Palate Journal*, *Journal of Trauma*, *Archives of Otolaryngology Head and Neck Surgery*, *Current Opinion in Otolaryngology*, *Head and Neck Surgery*, and *Chest*.

### **Intra- and Extra-Professional Demands**

There is a demand for professional doctoral level clinical leaders in speech-language pathology from within and outside the profession. In an attempt to gauge the demand from within the discipline, we conducted a written survey of local speech language pathologists who were currently practicing in a non-school environment. While this survey did not meet the necessary sampling procedures to be considered scientifically valid, 27 working clinicians did respond to the two-question survey. We asked: "Is there a need for a clinical doctorate in speech-language pathology and would you consider enrolling if there were?" We also had responses from 34 current MA-Level graduate students. These results

are summarized below. The overwhelming majority of responding practicing clinicians believed that there is a need for such education/degree and about one-half responded that they would matriculate if such a program existed. An even larger percentage of current graduate students responded to each of these questions positively.

Table 1. Student and Professional Needs Assessment Survey.

<b>Participants</b>	<b>Results</b>
<b><i>27 Practicing Speech-Language Pathologists</i></b>	
Need for program: (positive response)	23/27 (85%)
Would consider enrollment: (positive response)	14/27 (52%)
<b><i>34 MA-Level Graduate Students</i></b>	
Need for Program: (positive response)	33/34 (97%)
Would consider enrollment: (positive response)	28/34 (82%)

Subsequent to this written survey, the graduates of each of the past two master's classes have been surveyed verbally by the author. With approximately 35 students in each class, 28-30 respondents said that they would consider enrolling in such a degreed program if it existed. In each of these classes, the students were also asked if they would consider enrolling in the Ph.D. program. Two students in one class and one in the second class of graduates said that they would consider enrolling in the current Ph.D. Program. Only one of these students said that they would enroll in the clinical doctorate instead of the Ph.D. if it were available. Our interpretation of these responses is that there is a strong perception of need, there are ample matriculates to populate such a program, and the pool of potential students for the clinical doctorate does not overlap with the potential pool for the research doctorate.

There are also healthcare delivery system demands for the production of and reliance upon evidence-based practice that current practitioners are not meeting, particularly (but not exclusively) in medical settings. It seems self-evident that the current level of education of the great majority of current clinical practitioners will neither contribute to the establishment of this evidence-based practice nor be consumers of the evidence once provided. With the goal of educating expert consumers of research (but not necessarily producers of research), the graduate of this clinical doctorate will move toward fulfilling both demands of the healthcare delivery system.

### **Degree Goals**

The goals of the proposed clinical doctorate in Medical Speech-Language Pathology are to educate professionals who are autonomous, independent professionals who demonstrate leadership and excellence in providing the full spectrum of assessment and rehabilitative services associated with the practice of medical speech-language pathology. Graduates of this program will demonstrate a high level of competence as consumers of research. Individuals completing the proposed professional doctorate at the University of Pittsburgh will have fulfilled all requirements for certification and licensure during their tenure in the program (pending successful completion of their national examination). At the time of graduation individuals will have accumulated approximately 2000+ clinical contact hours + 3 five-week medical/related-profession rotations. Students will receive the appropriate (M.S./M.A) Master's Degree in speech-language pathology at the time that all requirements are fulfilled during the completion of the doctorate.

### **Program Entry Points**

Varying backgrounds and clinical education and knowledge will allow for several entry points into the program.

<b>Entry With</b>	<b>Estimated Duration (yrs)</b>
•Bachelor's	5
•Master's without CCC	3
•Master's with CCC	2.5
•Ph.D. without CCC	2.5 to 3
•Ph.D. with CCC	1.67
•Concurrent Ph.D.	6 to 6.5

### **The Degree Designator**

We decided early on in the discussions of the clinical doctorate that the Ph.D. is sacrosanct and is best reserved as a research only degree. We, therefore, explored the pros and cons of professional designators versus general degrees to which professional disciplines or specialties could be attached. We agreed that with few exceptions, disciplinary specific designators have gained little respect and political advantage. We decided that the discipline specific recognition associated with degrees that carry the discipline or professional title was rarely achieved and diminished the perceived stature of the degree. Using the M.D. Degree as a model of a discipline-general degree, we propose the Sc.D. Degree because it is not a discipline specific degree designator. The Sc.D. is an established and generally accepted degree designator, frequently used for applied sciences such as bioengineering. Additionally, it is a degree already used by several communication sciences and disorders programs and it is a designator that can be used by multiple disciplines, similarly to the M.D. Degree.

## Proposed Curriculum

### Core Courses

- 3 credits      Human Systems Physiology (e.g., BIOSC 1250 or equivalent)
- 3 credits      Neuroscience Course
- 3 credits      Professional Writing
- 1 credit        Clinical Writing Project (1 credit, each of 3 terms)
- 3 credits      Ethics, History & Philosophy of Science/Medicine (Course and Department TBA)
- 6 credits      Research Design, Statistics, Clinical Trials, Evidence-Based Practice (may include Independent Study with approval of faculty adviser and available faculty, appropriate courses in other University of Pittsburgh Departments).
- 3 credits      Leadership Seminar in Development Disabilities (Ed. Social Work)

### **21 credits**

### Discipline Specific Courses-Advanced Knowledge and Skills

- 3 credits      Head/Neck Anatomy, Physiology, Biomechanics (new CSD course)
- 3 credits      Neuroscience Courses/Seminars (may include Independent Study with approval of faculty adviser and available faculty, appropriate courses in other University of Pittsburgh departments)
- 6 credits      Disorders/Instrumentation (to include Acoustic phonetics, Physiologic Phonetics, Instrumentation with labs; Independent Study with approval of faculty adviser and available faculty, appropriate courses in other University of Pittsburgh Departments)
- 3 credits      CSD Doctoral Research Course
- 3 credits      Medical Speech-Language Pathology (CSD new course)
- 9 credits      CSD Case Based Learning (3 credits, each of three terms)
- 9 credits      CSD Doctoral Seminar (3 credits, each of three terms)
- 0 credits      Research and Clinical Forums (0 credit, each term)

1 credit      Comprehensive Examination (oral and written)

**37 credits**

Advanced Clinical Practicum

20 credits      Two to five day-per-week practica (~1725 hours)

3 credits      Clinical Rotations (480 hours)

**23 credits**

Teaching Practicum

2 credits      Clinical Teaching Practicum (Year 2, Spring Term)

**2 credits**

Total **83 credits** (Beyond current Master's Degree)

Courses beyond the Master's Degree

The proposed curriculum contains a number of courses not contained within current Master's program. These include

Human Systems Physiology (3 credits)

Head and Neck Anatomy and biomechanics (3 credits)

Neuroscience Course/Seminar - 2 courses (6 credits)

Physiologic Phonetics with Instrumentation Lab (3 credits)

Acoustic Phonetics with Instrumentation Lab (3 credits)

Statistics & Research Design - 3 courses (3 credits)

Clinical Trials Course (GSPH), (3 credits)

Medical Speech Pathology Course (3 credits)

Doctoral Seminar - 2 courses (6 credits)

Clinical Teaching Practicum (2 credits)

Research and Clinical Forum, Research Round Table (each term enrolled in the program)

Comparison of Sc.D. with Current M.A.

<b>ScD</b>	<b>MA</b>
2000+ clinical contact hours (including Medical Rotations)	350 clinical contact hours
<u>Fourteen</u> full time terms beyond the Bachelor's Degree; (academic coursework and clinical education)	<u>Four</u> to five full time terms beyond the Bachelor's Degree (academic coursework and clinical education)
149 credits beyond the Bachelor's Degree	63-64 credits beyond the Bachelor's Degree
Medical/Other Professional-Rotations, 1 term, 32 hours per week (480 hours)	N/A
Research and Clinical Forums each term of attendance	N/A
Clinical Writing Project, 3 terms, culminating in written and oral case presentation	N/A
Training in Statistical Methods and Research Design (12 credits)	N/A
Case-Based (problem oriented) Learning Seminars, 3 terms	N/A

**Potential Disciplinary Advantages to the Establishment of a Clinical  
Doctorate in SLP**

The primary advantage of proposing this degree program is to educate competent clinician/teachers with the scientific training and life-long learning tools to practice and teach at the leading edge of the clinical science for the duration of their careers. There are potential important secondary benefits as well. With the apparent abundance of highly qualified persons interested in pursuing this form of doctoral training, those graduates with an interest in an academic speech-language career could help fill the faculty shortage in departments of communication science and disorders. The proposed curriculum is intended to

prepare the graduate to assume a faculty position with a clinical, rather than a research production focus but with equivalent depth and breadth of content areas and equivalent scientific rigor. The graduate of this program will demonstrate excellence as a consumer of research, though not as a producer of research. This could lead to an increased quality of both the research and the clinical missions of CSD Departments by freeing the research faculty to teach and do research (that which they have been educated to do and what they theoretically do best) and the clinical faculty to teach didactically and clinically (that which they theoretically do best). Though not the primary motivations for a clinical doctoral degree in SLP, a well educated professional with such a degree could help bring legitimate status and trust to medical and other colleagues by improving increased competence to the profession. It could also increase confidence in interdisciplinary colleagues, patients, and third party payers with increased competence and confidence in the title.