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Collaborative Models of Clinical Preparation

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Introduction

The relationship between academic training programs and clinical practice settings is essentially one of mutual need. Mutual need is judged to be supportive and nurturing in this situation. Training programs need clinical settings to place students, so they may apply their learning in "real" situations with clients. Clinical practice settings need universities to continuously "supply" them with clinicians they can hire to service their clinical populations. Consequently, what is good for academicians is good for managers of clinical programs.

This collection of articles discuss how university programs relate to clinical practice sites in the community.

Barbara Mastriano, assistant professor in Communication Sciences at Temple University in Philadelphia, PA, describes how the academic setting can successfully link itself with supervisors in the community.

Deborah King, director of Clinical Services; Carol C. Sheridan, clinical coordinator at the University of Tennessee; and Ann Hake of the Sevier County Schools in Sevierville, TN, describe the collaboration between the university and public schools.

Anthony P. Salvatore, professor and program director at Jersig Communication Disorders Program, Harry Jersig Center, Our Lady of the Lake University in San Antonio, TX, describes the development of training students, especially new students, in a medical setting.

Richard K. Peach and Dianne H. Meyer at the Department of Communication Disorders and Sciences,

Rush University, Rush-Presbyterian-St. Luke's Medical Center in Chicago, IL, describe an academic training program housed within and actively participating in the delivery of clinical services in an urban medical setting.

I think you will find this collection to be informative and timely.

Maximizing Clinical Education: University-Community Practice Interface

Barbara Mastriano Temple University

The graduate program in speech-language pathology and audiology in the Department of Communication Sciences at Temple University has the unique advantage of being situated in a major metropolis with a population of more than 5 million people within a 60 mile radius. As such, there exists a large and varied pool of possible training sites in addition to Temple's Speech-Language-Hearing Center (TUSLHC). The range of facilities includes five medical centers and their associated hospitals, school districts from more than 10 counties in three states, early intervention and preschool settings, specialized schools, hospitals, and private practices. In all, the graduate program is affiliated with more than 80 facilities. In any given semester, between 30-35 students engage in practicum at one or more of these facilities.

The university graduate program has had longstanding relationships with the clinical staff in many of these facilities while others may be involved in student training only on occasion. The nature of stu-

dents' clinical needs is defined by both ASHA certification requirements and the university program's philosophy, which emphasizes breadth of experience. The availability of particular sites as well as students' needs dictate the selection process each semester. The TUSLHC operates as a training facility for students in their first level of clinical experience. It also provides clinical experiences with populations not readily found in concentrated groups in other facilities. These include preschoolers at risk for stuttering, adults with acquired hearing loss needing aural rehabilitation, nonnative English speakers and mono- or bilingual Spanish speakers who present communication disorders.

As the scope of practice in the professions has expanded, both practitioners in affiliated agencies and faculty at Temple recognized the need to strengthen the relationship between the university and the professional community in relation to student training. In spring 1992, representatives from all affiliated agencies and Temple faculty came together to explore common interests and concerns. The principle outcomes of this session were mandates to design a formal workshop in supervision and to establish a Supervisory Advisory Committee.

Over the summer of 1992, several faculty members developed a supervisory manual which would serve as the centerpiece for the supervision training. Included were ASHA's Position Statement on Supervision in Speech-Language Pathology and Audiology (1985), Temple's philosophy of supervision, expectations of the clinical experience, strategies to assist in supervision, information regarding the master's curriculum at Temple, and paperwork associated with the supervision process at Temple.

The first supervision workshop was conducted in fall 1992 and has been held every semester since. Every clinician who is supervising a graduate student from Temple for the first time, as well as clinicians who had supervised before implementation of the training, is required to attend the 3-hour workshop on a onetime only basis prior to the beginning of the semester in which she or he is to supervise one of our graduate students.

The format of the workshop is both didactic and experiential. Content of the workshop focuses on Anderson's model of supervision (1988) with particular emphasis on the graduate clinician's nonlinear shifts in the degree of independence within a given practicum. That is, student clinicians may move backward and forward through the various stages of supervision reflecting the type of expertise required for a specific task. Within the framework of this model, the participants in the workshop explore the issue of ex-

pectations of both the supervisor and the student clinician, for each other and for themselves, and how these expectations change over the course of the practicum. The issue of expectations is a critical one in ensuring the success of a supervisory interaction. The literature is replete with data correlating success in supervision with agreement, regarding expectations, between a supervisor and her/his supervisee (Anderson, 1988; Larson, 1982; Mastriano, Cottwald & Halfond, 1990). That is, each supervisory dyad (supervisor and supervisee) must be in sync about its expectations for each participant. These expectations may differ between dyads but should not differ within a dyad. Other issues addressed during the workshop include the role of feedback and the process of evaluation (Russell & Halfond, 1985, 1986). The experiential segments of the workshop include small group discussion among supervisors working in similar types of settings with a faculty member serving as facilitator and role plays using several predesigned scenarios. Evaluations of the workshop have been consistently positive with the most enthusiastic feedback given to the small group discussions. Given the number of affiliated agencies and the rate of change of personnel, attendance at each workshop averages approximately 15 people.

The Supervisory Advisory Committee plays a pivotal role in maintaining and improving the nature and scope of students' clinical experiences by providing a reciprocal flow of information and ideas between the university and the professional community. As such, practitioners have input into the graduate curriculum in speech-language pathology and audiology at Temple and the university has input into program development and evaluations at off-site facilities (Petry et al., 1995). Representatives from the range of clinical settings and one faculty member constitute the membership of the committee. At its inception, the committee developed a set of issues to be addressed, including shared resources, interdisciplinary collaboration and research, information access, and feedback mechanisms. For example, the committee helped to reshape the graduate curriculum by presenting information garnered from a survey, which it conducted, to affiliated agencies and by engaging in joint dialogue with the faculty. In another example of collaboration, affiliates have served as instructors in our mini-seminar format, as lecturers in core courses, and as presenters to our NSSLHA chapter. The committee has also developed several forms for providing feedback to student clinicians and to affiliated agencies. To date, the committee has accomplished most of its initial goals and is currently developing a video resource library to be shared by the professional community and the univer-

Murray Halfond, a retired faculty member at Temple, wrote one of the seminal articles in supervision (Halfond, 1964) in which he chastised the professions for not addressing the area of supervision seriously. Our professions have clearly come a long way in meeting Halfond's challenge. His legacy has had a profound influence on attitudes and knowledge about supervision. In the current climate of shrinking resources and sometimes questionable priorities, it is crucial that we all maintain the perspective of the importance of the supervisory process to the well being of the professions. Temple's faculty and practitioners at our affiliated agencies, especially as represented by the Supervisory Advisory Committee, are dedicated to improving the supervisory process to insure the continuation of the highest quality personnel among the next generation of speech-language pathologists and audiologists.

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Collaborative-Consultative Model for Training Students in a Public School Practicum

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An article by Alan Kamhi in *LSHSS* (1994) defined high quality services and clinical expertise. Of particular interest were the three "attitudes" identified by Cornett and Chabon (1988) as central to providing high-quality services in speech-language pathology. The authors defined a scientific attitude, a therapeutic attitude, and a professional attitude with definitions of the clinical goals associated with each attitude. The professional attitude as defined in the article encompasses the following:

- expertise or the requisite knowledge and specialized skills/techniques attested to by educational and certification requirements,
- professional norms which are codes of professional conduct and clinical accountability;
- professional collegiality and professional memberships;
- legal identity involving federal and state mandates which regulate the practice;
- business acumen or the management and financial aspects of the practice and professional style and/or traits (p. 116).

As clinical supervisors we are striving to provide a conducive, learning environment so our students will develop the skills necessary to be successful in each of these three areas. However, when we consider our use of "outside practicum facilities," it appears that these facilities offer exceptional opportunities to develop the skills requisite for the professional attitude. It is the experience within the public school setting which allows the student the opportunity to develop an understanding of the "culture" of the school as a future employment setting.

Within the discipline of speech-language pathology, professionals have embraced the concept of teaching communication skills within a natural environment. Federal mandates have dictated a collaborative model for provision of services as well. As interpreted by Elksnin, Capilouto, and Bright (1994) integrated speech and language services are services provided in a natural setting that facilitate communicative competence and promote success.

A collaborative-consultative model also provides an excellent framework for educating students involved in clinical training. It is hoped that a successful collaborative-consultative model between the university and the public school practicum site provides an integrated program which facilitates development of the student's professional skills and promotes success for the student as well as for the school system and university.

With the current work demands placed on professionals to increase productivity while decreasing costs, it becomes important for programs to also provide costeffective clinical education for students. A collaborative-consultative model for provision of practicum opportunities supports these principles. Although this article focuses on the public school practicum site, many of these concepts apply across all practicum opportunities.

Rationale for providing students experience in the public schools is supported in an article by Montgomery and Herer (1994). The authors reported 19 trends from Cetron and Gayle regarding education in our country. Of particular interest for educational facilities challenged with adequately preparing future public school professionals were the following:

- Predictions of shortages in the number of new hires needed due to teacher retirements, requirements for class sizes and increases in enrollments.
- 2. Due to the emphasis on literacy in the special education curricula, speech-language pathologists will be assisting in writing metacognitive and metalinguistic components of the school curriculum
- 3. Many speech-language pathologists will be moving into administrative posts in schools.

Given the above predictions, a clinical experience within the school environment is of utmost importance. Within the University of Tennessee program several strategies have been utilized to enhance this collaborative relationship. In order to facilitate off campus relationships, a university supervisor has been assigned as practicum coordinator. The coordinator is responsible for assisting all students to off-campus clinical sites and developing and maintaining a relationship with the off-campus supervisors.

After receiving approval from his or her immediate supervisor, the university coordinator contacts the public school supervisor. During this contact, the supervisors discuss the school's needs as well as the student's needs. The university supervisor also shares information regarding the student's academic preparation as well as the student's previous clinical experiences and the perceived strengths and needs in rela-

tion to this practicum experience. Al I placement decisions are therefore joint decisions. Manuals, which include grading criteria, ASHA requirements, and semester calendars, are also provided for each supervisor.

Previously, one on-site visit was made to each site during the semester. Due to the large number of students in our program, it has become impossible to visit every supervisor each semester. The on-site review has now become a vehicle for supporting new supervisors and for assisting with students who are experiencing problems in the public school assignment.

The student's evaluation of the supervisor's performance is shared with each supervisor at the end of the semester. Feedback from the supervisors regarding the supervisory experience is obtained via telephone interviews. There are plans to develop written evaluations for the supervisors to provide feedback.

The public schools course, Speech-Language Services in the Schools, is taught by a speech-language pathologist practicing within the school system. This relationship has proven successful in that it allows the practitioner to provide the academic preparation for the practicum site. In addition, off-campus public school supervisors have provided lectures in other academic courses.

The department head meets periodically with the supervisors and the students to receive verbal feedback regarding their perception of their "preparedness" for the school practicum. Curricular changes have occurred based on this feedback.

During several summers, school speech-language pathologists have been employed to provide services within the campus Hearing and Speech Center. This has allowed greater opportunity for communication between university and school staff.

To express appreciation for the hours of supervision provided, off-campus supervisors have been invited to attend continuing education opportunities at a reduced rate, invited to "receptions/luncheons" which allow the supervisors the chance to network and share ideas, provided university privileges such as library and recreational facilities use, loaned materials and equipment, and provided consultative services and in-service programs.

A positive outcome of the relationship between the university and the schools has been the collaboration and cooperative learning regarding client management. Due to the diversity of the university supervisors/faculty expertise, the university staff has had the opportunity to collaborate on challenging cases, provide diagnostic services for bilingual clients, provide

assistance with mass screenings, etc. The supervisory relationship also opens doors for collaborative research/grant opportunities.

Public school speech-language pathologists report that the supervision of students has allowed them to increase their effectiveness within the school by allowing more time to consult with teachers, time to complete classroom observations, and time to develop innovative multidisciplinary intervention programs. Extended school programs have been designed with the university students providing support for the programs. These programs have also allowed practicum opportunities for practicing speech-language clinicians upgrading to the master's degree.

Another benefit of the relationship is that of marketing. The school placement is an excellent opportunity for the student to examine the schools as a viable employment setting while it allows the school to "preview" the student's abilities to work within the school environment.

As we continue to improve our program, we are planning to develop a descriptive feedback system which will provide information to improve collaborative efforts between the agencies and promote a cooperative spirit among the professionals. Continuing education programs and support for innovative programming initiatives, as offered by the university, should also strengthen these relationships.

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Preparing Students for Field Practicum: One Solution

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This article describes our rotational practicum sequence program for first year graduate students. This program was developed to improve the performance of graduate students with adult and child patients in medical clinical settings, specifically in the areas of clinical flexibility with a variety of medically based communication disorders, new content and procedural information at these settings, and interdisciplinary interactions at different practice sites. From a survey of our customers, we found a disparity between the comments returned from medical clinical settings versus educational settings. While our customers in education felt our second year students were outstanding, the medical clinical customers felt that improvement was needed.

Background

The academic program and the campus-based clinic had been in operation for 38 years when this project was initiated 2 years ago. The case load consisted primarily of children. Graduate students were not exposed to adult clients until their field practicum during the second year. The few adults at the campus clinic were primarily adults with learning disabilities. We also had few medical field placements for second year graduate students. Referral of other types of adult patients with voice, neurogenic, TBI, and so forth was well served by numerous nonprofit and for profit facilities in the city. We viewed these problems as an opportunity to improve our clinical practicum experience. Through the continuous application of total quality management tools and procedures we strove to improve our program.

Feedback From Survey of Customers

Feedback from medical facility supervisors indicated that our students were:

- i) not emotionally/professionally/academically ready for practicum at their sites,
- ii) requiring too much time to work with,
- iii) not independent enough,
- iv) limited in their experience working with other professionals,
- v) limited in their exposure to adult/child populations in medical settings before coming to the field practicum,
- vi) limited in their experience with the team approach.

Root Cause Analysis

Root cause analysis led us to the first conclusion that the disparity in comments corresponded to the student's lack of exposure in the first year to adult/child patients in medical clinical settings. So our first challenge was to gain access to adult/child populations in medical settings for our first year graduate students' practicum experience.

Steps in Problem Solving

- We established a second clinical site at then South Texas Medical Center approximately five miles from campus. The purposes in establishing this clinic were:
 - i) increase our identification with the medical community,
 - ii) patient convenience,
 - iii) increase the potential number of adult/child patient referrals from numerous medical referral sources located in the center.

We also tried another tactic. The program director visited existing medical facility programs and proposed the following: They hire one of our faculty part-time who would provide services at their site and also be responsible for student training. Not one facility was interested. The program director continued to visit potential field practicum sites.

- 2. We established a continuous quality improvement culture within our academic and clinical sections. We began by identifying opportunities to improve as a program. We did this by distributing questionnaires to our "customers:" parents, supervisors, field supervisors, physicians, faculty, office staff, students. Then we met with them in a nominal group process to discuss their responses on the questionnaire. This resulted in a systematic procedure for gaining feedback.
- 3. We tried several clinic practices in an attempt to improve the performance of our practicum students. We instituted (a) SOAP note writing at the campus facility, and (b) weekly patient staffing meetings.

Development of the Plan

Faculty continued to spend time investigating and discussing the development of possible solutions to these challenges. After hours of open and frank discussions, we came to our second conclusion: Students needed a variety of medical clinical experiences dealing with adult/child populations before going to field placement site.

- 1. We developed service contracts with different facilities with which we already had a working relationship. These were primarily with medically oriented facilities in which faculty already had a professional presence. These contracts reimbursed our faculty for services provided. We assigned students to work with the faculty so they could provide supervised clinical practicum experience.
- 2. Next, we instituted a medical school model of rotation through each of five different settings. Our feeling was that not only would our students get more exposure to the adult/child populations in medical settings but that they might also become familiar with a variety of settings and, thus, clinically flexible, familiar with and better able to work with other professionals, and familiar with a team approach. Each new full-time graduate student was assigned to a team at the beginning of the fall semester and went through a sequence of five settings:

Settings 1 and 2: At an acute medical facility dedicated to patients dependent on a ventilator, students have two separate experiences;

- (a) bedside speech, language, cognitive screening and treatment, and
- (b) experience dealing with the diagnosis and treatment of dysphasia.

Setting 3: An outpatient genetic disorders clinic at an urban children's hospital.

Setting 4: Our campus based high volume clinic for children in Head Start.

Setting 5: The final setting was our campus early intervention group.

Each team of three or four students spent 6 weeks in each of these settings over fall, spring, and summer semesters. All students also carried at least two or three patients in the campus-based clinic as well. This level of involvement also assured students of satisfying our internal clinical practicum expectation of at least 100 faculty supervised hours before proceeding to field practicum.

Evaluation of Our Solutions

Observations from faculty supervisors:

i) During the first two rotations, students are adjusting to the graduate school experience. But by the spring semester and the third rotation, students are psychologically adjusted to clinical practicum. For example, they require less start-up time, and they adjust more readily to new situations.

 ii) Because students are rotated rather quickly through several supervisors, faculty are able to identify problems with specific students very early on

Conclusion

The feedback is positive from practicum supervisors in school and medical settings. The students are clinically more mature and more independent than their predecessors. The students report they are prepared for their off campus experiences and can take advantage of the varied practicum settings. As a faculty, we are satisfied with our improvement, but continue to collect data from our field practicum supervisors so we can continuously improve.

Editor's note: The following article is adapted from Meyer, D. H., McCarthy, P. A., Klodd, D. A., & Gaseor, C. L. (1995). The teacher-practitioner model at Rush-Presbyterian-St. Luke's Medical Center. American Journal of Audiology, 4(3), 32-35.

The Teacher-Practitioner Model at Rush University

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The gap that can exist between classroom teaching and clinical service delivery is of ongoing concern to speech-language pathologists and audiologists. The teacher-practitioner model, implemented by faculty who take on dual roles as academicians and clinicians, offers an innovative approach toward bridging that gap. Rush University, which is part of Rush-Presbyterian-St. Luke's Medical Center, embraces the teacherpractitioner model as the underlying philosophy for its educational programs, including the master's degree programs in speech-language pathology and audiology. In the 16 years since the programs were established, speech-language pathology and audiology students have learned in an environment where the link between academics and patient care is emphasized and modeled. In this report, we present how the teacherpractitioner concept has developed at Rush and discuss the model's advantages and challenges.

What is the Teacher-Practitioner Model?

The teacher-practitioner model is not a new concept in professional education. Early professional programs typically utilized a faculty of accomplished practitioners who had special interests in the education and development of the profession. University programs changed over the years, however, and faculty emphasis shifted away from professional practice to teaching and research. Consequently, teaching has become more detached from practice, and it is increasingly difficult to communicate to students the relationship between the theoretic base of a profession and its real-world practice. The teacher-practitioner model attempts to overcome this problem by combining faculty roles of scholar and professional practitioner.

The Rush Environment

A key factor in our implementation of the model is the location of our programs within a large multi-component academic health care delivery system. Rush-Presbyterian-St. Luke's Medical Center is one of Chicago's oldest health care organizations. The main campus is located on 33 acres about one mile west of the Chicago Loop. In 1837, Rush Medical College was chartered and it continued in operation until 1940.

The reactivation of Rush Medical College in 1972 was the first step in the Medical Center's development of a health professions university based on the teacherpractitioner model. The underlying philosophy was, and continues to be, that the integration of academics and professional practice enhances the academic environment and facilitates the recruitment of high quality practitioners for better patient care (Montgomery, Enzbrenner, & Lemer, 1991). In addition, Rush uses the model to encourage teacher-practitioner participation in management operations. Implementation of the teacher-practitioner model is found throughout the medical center. The president of the university and CEO of the medical center is a practicing physician; corporate officers are practitioners with faculty appointments in their respective academic departments in the university; and the deans of the colleges are practitioners and serve on the Medical Center Management Committee. Throughout the organization, teacher-practitioners unify operations, academics, and patient care.

Fitting Communication Disorders Into the Model

Our clinical roots go back more than 40 years when speech and hearing services were provided through the Otolaryngology Department at St. Luke's Hospital. Today, the clinic programs exist as the Section of Communicative Disorders in the Department of Otolaryngology and Bronchoesophagology in Rush Medical College. The academic programs in speechlanguage pathology and audiology were established in 1980 and today are housed within the Department of Communication Disorders and Sciences in the Rush College of Health Sciences. Consistent with the teacherpractitioner model, the same group of six audiologists and eight speech-language pathologists make up the faculty of the section and of the department. Three speech-language pathologists and three audiologists have doctoral degrees and the remaining faculty have master's degrees. Since we relate to two university colleges, faculty are eligible for academic appointments in the College of Health Sciences and/or in the Medical College. Faculty with doctoral degrees are also eligible for medical staff appointments. The section and department have separate budgets, with the clinical budget coming through Presbyterian-St. Luke's Hospital and the academic budget coming through the university.

In the teacher-practitioner model, the faculty function as a single unit. Unlike traditional training programs, there is no dichotomy between a teaching faculty and a clinical supervisory faculty. As participants in the model, speech-language pathology and audiol-

ogy faculty have teaching and research responsibilities in the academic program and patient care responsibilities in the clinical program. The relative proportion of these responsibilities varies across individual faculty members, depending upon qualifications and expertise. For example, some faculty have more responsibility in the academic program and relatively less responsibility in the clinical program, while for other faculty the reverse is true. Some faculty have little or no classroom teaching duties while others teach several courses a year. Research/scholarly activity is expected of some faculty and is less emphasized with others. The common factor is that all faculty engage in at least one day of clinical practice each week, and all incorporate student practicum into clinical practice.

In keeping with the Rush administrative philosophy, one individual heads the section and the department. This individual is designated as the director of the section and chairperson of the department and must hold a doctoral degree in speech-language pathology or audiology. The director/chairperson is responsible for professional and operational management of the section/department. In our experience, having the clinical and academic programs unified under a single head assures that the efforts of individual faculty members and of the section/department as a whole are balanced between academic and clinical activity.

Integration of the Clinical and Academic Programs

Some background information is helpful for understanding how the clinical and academic programs are integrated. The programs are accredited by the Professional Services Board and the Council on Academic Accreditation of ASHA. Each year more than 8,000 speech-language pathology and audiology services are provided to patients ranging in age from newborn through geriatric. The full range of diagnostic and rehabilitative speech-language pathology and audiological services are available. The variety of communication disorders and the heterogeneity of the patient population provide clinical challenges for the department faculty and outstanding practicum experiences for students.

The academic programs in speech-language pathology and audiology extend over seven quarters. Rush offers the master of arts degree in each profession and students matriculate from a variety of undergraduate institutions. Enrollment size has been a critical factor in our implementation of the teacher-practitioner model. Approximately eight speech-language pathology and five audiology students are accepted per year with a maximum of 26 students at any given

time. This relatively small enrollment enables faculty to manage their academic and clinical roles, and it assures that all students receive a variety of on-campus practicum experiences. Students derive the additional benefits of small class size, excellent faculty/student ratio, and essentially one-on-one practicum supervision.

Each curriculum follows a lock-step design such that the study of basic sciences precedes the study of disorders and treatment; professional coursework precedes or occurs concurrently with clinical practicum. Students enroll in speech-language pathology or audiology practica all seven quarters and assume increasingly greater responsibility for patient management as they progress through the academic and clinical instruction sequence. During on-campus practica, students are assigned to individual faculty and work with patients who are under the care of the faculty member.

The functional integration of these two programs is simplified because they are managed by a singly faculty. Communication among faculty about clinical or academic concerns is facilitated by the joint planning and implementation of both programs. Individuals may have more responsibilities in one program or the other, but collectively all share a commitment to excellence in both academics and patient care.

The reciprocal relationship between academics and patient care is what drives the teacher-practitioner model. Providing clinical services to challenging patient populations leads to cogent research questions and relevant teaching. Conversely, the quality of pa-

tient care is enhanced when provided by practitioners engaged in teaching and research. Figure 1 illustrates how the clinical and academic activities serve to complement and support one another.

Students benefit from this relationship on every level. For example, a faculty member who teaches aphasia coursework and sees patients with neurogenic communication disorders in the clinical program can use clinical case material to illustrate and supplement classroom lectures. This same faculty member may supervise a student in clinical practicum, thereby having additional opportunity to reinforce the relationship between classroom theory and clinical practice.

Faculty who spend more time in clinical activity may direct courses or contribute lectures in areas that match their clinical expertise and interests. As practicum supervisors, they monitor how well our students function in a busy clinic environment and provide feedback to course instructors. Their input influences individual course content and the curriculum as a whole.

The academic and clinical programs are integrated in numerous other ways as well. Protocols developed by the faculty for use in the clinic also are taught in the classroom. Clinical issues (e.g. reimbursements, quality improvement, and cultural diversity) are infused into practicum and classroom education. Because the academic and clinical programs are closely linked, faculty move easily from one role to another.

What Are the Advantages of the Teacher-Practitioner Model?

While patients, students, and faculty benefit from the model, undoubtedly the greatest advantage is to patients. They benefit because teacher-practitioners apply current theory and state-of-the-art clinical procedures to the patients they evaluate and treat.

Students benefit from learning in a busy medical center with real-life clinical situations. They learn from faculty who reinforce the relationship between theory and practice and who "practice what they preach." Students learn not only how to evaluate and manage a variety of communication disorders, but also how to

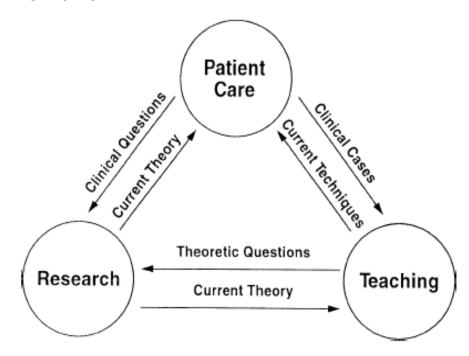


Figure 1. Relationship between academics and patient care in the teacher-practitioner model.

deal with on-the-job situations such as critically sick patients, last-minute schedule changes, and reports that are needed immediately. Along with faculty, students attend neurology, otolaryngology, physical medicine and rehabilitation, and pediatric seminars, as well as journal clubs and other special lectures sponsored by the various departments at the medical center. They see speech-language pathologists and audiologists as active participants and contributors in these settings. The role models provided by faculty are not isolated to the classroom, research lab, or clinic. Rather, speech-language pathologists and audiologists are seen in a broader context as professionals with a commitment to both practice and academics.

From the faculty point of view, the teacher-practitioner model combines the best of two worlds. Clinicians on the faculty have the opportunity to pursue scholarly interests while academics have the opportunity to retain clinical practice skills. The patient caseload generates interesting questions for student and faculty research and provides an abundant source of research subjects.

What Are the Demands of the Model?

Over the years we have learned that the teacherpractitioner model imposes specific demands. First, faculty schedules must reflect a healthy balance between their clinical and academic interests. The model does not work when faculty with clinical interests are asked to take on greater teaching responsibilities or when faculty with academic interests are asked to assume a large patient load. Relative responsibilities must reflect the individual's qualifications and expertise.

Second, clinical activity must not be allowed to compromise faculty appointment and promotion. This is a difficult issue because the model requires a practice component; yet Rush, like other universities, weighs scholarly activity heavily when reviewing faculty for promotion to senior ranks. The immediate solution is to assign smaller clinical loads to faculty working towards senior appointments. In addition, Rush allows junior-level appointments to be renewed indefinitely, based on the recommendation of the department advisory committee and chairperson. The faculty member then has additional time to strengthen academic credentials. In some cases, distinguished clinical achievement that has been peer-reviewed may be used to supplement scholarly achievement.

Another demand of the model relates to adequate resources. There must be a sufficient number of faculty, equipment, and technical assistance to support comprehensive patient services, teaching, and research. Resources needed by clinical and academic

programs overlap somewhat, but each also has separate needs and priorities.

Finally, the model challenges faculty to maintain accountability in both hospital and university realms. Issues such as outcome measures, productivity, budgets, and performance standards must be managed for both areas. The overall success of the model is highly dependent on the success of each component.

Does the Model Work?

Not surprisingly, the teacher-practitioner model has become easier to implement as we have gained more experience. Various self-study measures have indicated that patient care and academic programs can be effectively integrated. For example, patient surveys and feedback from referral sources are consistently supportive of the quality and breadth of our clinical services. On the academic side, a greater number of increasingly qualified applicants are attracted to the program each year. Our new graduates invariably have positions at or near the time of graduation, and employers report that Rush graduates are well-prepared to begin their CFY experiences. Surveys of recent graduates point out the advantages of having the academic program affiliated with a major medical center. In addition, dual roles of teacher and practitioner have not interfered with faculty productivity, nor prevented faculty from achieving senior faculty rank. Faculty publish, present regularly at professional meetings, and serve as officers and committee members in professional organizations and at the medical center.

In summary, the teacher-practitioner model at Rush integrates patient care and academic functions, resulting in a marriage of theory and practice. Students learn in a medical center setting, while faculty enjoy an environment that supports scholarly and clinical interests.

The teacher-practitioner model in speech-language pathology and audiology is not appropriate for all settings. Nonetheless, as the educational model in communication disorders shifts from master's level preparation to advanced clinical certification and the professional doctorate, the teacher-practitioner model may represent the ideal approach to educating and training speech-language pathologists and audiologists of the future.

Reference

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