Chair Report for the Academic Affairs Committee

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According to the Bylaws of the AACP, the Academic Affairs Committee shall consider any matter relating to the conduct of pharmaceutical education to be within its purview, including but not limited to curriculum, resources, faculty, and students. The committee also considers matters extending beyond pharmaceutical education to higher education, especially those elements concerned with health professions education. It is the committee’s responsibility to bring to the Association’s attention for information or action those issues it identifies as timely and important.

In presenting the 1993-94 committee with its charge, President Leslie Z. Benet observed that pharmaceutical education and practice have undergone a paradigm shift from which pharmaceutical care has emerged as the central concept of pharmacy practice. In noting that academia must react “rapidly and creatively,” he referred the committee to four documents (his presidential address), the works of the AACP Commission to Implement Change in Pharmaceutical Education, the 1993 report of The Pew Health Professions Commission, and the Association’s strategic plan, and asked that they be considered for their implications to the future of pharmaceutical education and AACP. As an additional charge, the committee was encouraged to consider strategies and tactics to assist the Association in achieving its mission.

During the course of its discussions, the committee focused on the following issues for optimizing the effectiveness of the colleges of pharmacy and pharmaceutical education: leadership, interdependency, team approaches to health professions education, educational efficiencies and economies via resource alliances, and communications technology. No policy statements have been prepared for consideration by the AACP House of Delegates.

LEADERSHIP WITHIN ACADEME

Background

A critical component in maintaining the strength of an academic organization is the availability of a continuous supply of faculty who are willing and capable of filling the administrative ranks. An examination of the number of schools of pharmacy seeking to fill administrative positions and the difficulty many appear to be encountering in filling such positions suggest that there may be a shortage of administrative leaders. Regardless of whether this is an acute or chronic condition, the committee believes that this issue should be addressed because of its profound implications for the future of pharmacy academe and practice.

One key issue in addressing the shortage and fostering the development of future leaders is the identification of qualities, characteristics, and talents needed by individuals to be effective administrators/leaders in our institutions. The responsibilities associated with the administrative roles in our colleges and schools are expanding as the environment in which the university is positioned becomes increasingly complex due to a wide range of internal and external forces. Consequently, future administrative leaders will be required to possess knowledge and skills encompassing a wide array of areas (e.g., academic management, research management, business and fund raising, interpersonal skills, and human resources management). However, the most critical aspect of a leader’s ability is to provide the organization with a vision or goal for the future and to motivate other individuals to share, either partially or fully, in achieving this goal. In the latter case, it becomes necessary for individuals to develop skills that allow for team building.

The reality is that the administrators of the next decade, regardless of their level of responsibility, will probably be recruited from faculty who are already members of a school of pharmacy faculty. Some, with potential, are unidentified and may remain so; others are individuals who have already demonstrated leadership skills in the classroom, in their research programs, and/or in their clinical service activities. For reasons unknown, only a few of these highly talented individuals view administration as a logical and/or satisfying extension of their careers. One, however, can speculate that incentives and reward systems are not sufficiently attractive, and that some people feel that assuming an administrative position will result in a diminished leadership role in his or her scientific and/or professional discipline. Some potential candidates may also feel that they lack the requisite skills and knowledge and are uncertain about how these can be developed. On the other hand, some potential candidates primarily clinicians may feel that they are unqualified because they assume that deans of schools with large research programs must, as a minimum, be basic scientists.

There are several possible remedies, including a methodical process aimed at early identification of potential candidates and stimulating their interest by providing them with the opportunity to develop the requisite skills via training or administrative experience (either hands-on or associative). Another possibility is the establishment of an administrative skills development program in which mentors encourage and enhance the leadership skills and talents of potential candidates.

RECOMMENDATION 1: AACP should bring together a group of senior administrators (e.g., deans, department chairs) to critically review the Association’s academic leadership/management initiatives and programs and propose methods for identifying and nurturing potential leaders.

INTERDEPENDENCY

Background

Although pharmaceutical education and pharmacy practice have traditionally considered themselves to be partners, the actual relationship between the two is probably better characterized as that of supplier and consumer, i.e., education provides the product it believes that practice needs. While the exchange of interests and information between both parties has been continuous and commonplace, any actual change that has taken place in the shaping of a pharmacy graduate has occurred more often by independent and/or unplanned actions than the deliberative, mutual planning of all parties involved.

As the nation’s interest in, and control over the form and substance of health care increases, it is probable that pharmaceutical care, the pharmaceutical sciences, and pharmaceutical educa-

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1 Committee members: Ronald Borchardt (Kansas), Gayle Brazeau (Florida), Renato Cataldo (St. Louis), Robert L. Day (California, San Francisco), and C. Wayne Weart (Medical University of South Carolina); Liaison Members: Marian Osterweis (Association of Academic Health Centers) and Michael Weisberg (Lister Hill National Center for Biomedical Communications, NLM).
tion will eventually fall under closer scrutiny of those who pay the bill, whether they be private or public. The criterion applied will be value returned for money expended. It is also probable that managed care will be (as it already is) only one more in a long line of health care reform initiatives, each of which will require that the health care professions undergo yet one more period of accelerated evolution. It is also probable that those professions that do not evolve will discover to their dismay that their services have been dismissed as unnecessary or absorbed by others.

Winston Churchill once observed that those who do not hang together will most assuredly hang separately. His lesson, if applied to pharmacy education and practice, might be that each, as never before, is dependent on the other for advancement and survival.

Such an interdependency demands forums for seeking consensuses that do not currently exist, or mechanisms that actively seek the creative input of both education and practice into the decision-making process that determines what practitioners do and how they are educated.

Interdependency, however, exists not only at the level of education and practice, but also among the schools and colleges themselves. Although not often acknowledged, every school or college of pharmacy impacts on every other school with regard to:

- the quality of graduate education (i.e., schools are interdependent with regard to the training of future faculty);
- influencing legislatures and the national image of pharmaceutical education;
- student enrollments;
- faculty salary levels.

The message in this is that in being responsible for itself, every school must also accept some responsibility for every other school. This can be expressed via collaborative efforts (as suggested in a subsequent section of this report), assistance, advice or mechanisms that remain to be identified.

At a more finite level is the interdependency that exists among administration, faculty, staff, and departments of an individual school, all of whom must agree upon their educational missions and work together to ensure the success of their missions. The net outcome of their efforts is greatly influenced by the extent to which interdependency is acknowledged, valued, and exploited.

In an ideal pharmaceutical education environment, every member of the faculty acknowledges and respects the contribution of his/her colleagues and recognizes that basic research, as well as clinical research, are integral parts of the educational experience.

In that same world, the school’s administrators, faculty, and alumni are willing and able to secure the internal and external resources needed to implement the mission and thus provide the students with the highest quality educational experience possible. In addition, the dean and the department/division chairs provide the faculty, staff, students, and alumni with strong leadership.

The ideal world described above exists to varying degrees, but works most effectively only if all the aforementioned constituency groups within an academic institution can find, develop, and nurture the common ground. Once the mission for the school has been identified, all stakeholders in the educational process should be involved in its implementation. This is particularly true for the basic science and clinical faculty who will be largely responsible for the success or failure of the mission. To facilitate communication within the school, joint seminars and workshops involving the basic science and clinical faculty can be established. These seminars and workshops should attempt to identify areas of common interest to the basic science and clinical faculty that could eventually result in improvements in the educational experience for the professional and/or graduate student. In addition, joint committees of basic science and clinical faculty could be formed that will review the content, coordinate, and, if necessary, develop multidisciplinary courses. Equally important is the mutual understanding of and respect for each other’s roles, the roles of the pharmacist graduate and the contributions to science or health care of the clinicians and scientists. Finally, all of the constituency groups in the educational process must realize that the mission of a school is dynamic and that it needs to be reviewed continuously and, when appropriate, modified based on the input of the consumers (e.g., recent graduates, employers), changes in external forces (e.g., health care reform, development of new technology) and internal factors (e.g., availability of resources, facilities, equipment, expertise).

**TEAM APPROACHES TO HEALTH PROFESSIONS EDUCATION**

**Background**

The notion of a team approach to health professions education is not new. Indeed, there are myriad examples spanning at least the last 20 years of small-scale projects designed to bring health professions students together in multidisciplinary learning experiences. Some of these projects have involved pharmacy students; most are for medical students along with other professions such as nursing and physician assistants. For example, the Massachusetts AHEC, in collaboration with the National Association of Community Health Centers, was recently awarded a contract for a Community-Based Faculty Development Program from HRSA in five regions of the country; among the objectives is to provide opportunities for feedback on curriculum from faculty and practitioners representing physicians, nurse practitioners, nurse midwives, and physician assistants. Students who have participated in such multidisciplinary educational experiences have generally viewed them positively in the sense that they learned to appreciate the skills of other professionals with whom they will work during their careers.

Multiprofessional education can be difficult because of a number of factors including cultural differences among the professions, the logistical complications of different academic calendars, and other shortcomings of some schools and universities such as a lack of good preceptors and sites for such training. However difficult a team approach to health professions education may have been in the past, it is now more important than ever because pharmaceutical education and pharmacy practice are expanding into more direct patient interaction. Students need to be prepared to work directly with other health professionals. Also, market pressures and health care reform are changing the way health care is delivered and the sites of such care while trying to control costs and enhance quality and access. A likely result will be a reshaping of the roles of all health professionals. Thus, now is an opportune time to think about reshaping education and demonstrating what and how pharmacy can contribute to the team approach to care in hospital and long-term care settings and primary care sites.

As resources become more constrained on campuses, the health professions schools are likely to need to find ways to teach and learn together to avoid duplicating resources. In keeping with AACPs’s stated position (7,8), pharmacy educators should work with educators from other health professions to:

- develop didactic courses for students from multiple professions;
- develop clinical experiences for students from multiple professions to learn about each other’s expertise while learning to care for patients;
- develop effective multiprofessional education teams for both didactic and clinical teaching;
- develop and test innovative models of care for patients in various settings that involve pharmacists and other health professionals to demonstrate the benefits of including pharmacists on the patient care team;
- develop, evaluate, and promote a community-based faculty development program for community-based practitioners that stresses the importance of interdisciplinary collaboration;
- encourage pharmacy faculty to become more involved in the

education (including the possibility of joint continuing education programs) of other health professionals.

“The consultative role between pharmacists and physicians is important to patient welfare and will increase in significance in the future.” A need exists for our professional organizations including AACP to discuss these roles for pharmacy and pharmacy education with the professional and educational organizations which represent our fellow health care providers in medicine, nursing, etc.

EDUCATIONAL EFFICIENCIES AND ECONOMIES VIA RESOURCE ALLIANCES

Background

One subject that was inextricably intermingled with nearly every topic the Academic Affairs Committee discussed was that of resources, broadly defined as operating budgets, personnel, equipment, and facilities. Although educators at all levels have complained about the inadequacy of some or all of these resource elements for at least several decades, only recently has it become apparent that the demands on their resources may be increasing at a time when the resources, themselves, are diminishing.

Of specific concern are the following:

- The decline in the nation’s economy has resulted in cutbacks at all levels of support for research and education, especially at state-funded institutions(9-17). This has impacted, or will shortly impact upon every school, especially those that are preparing to mount all-PharmD programs.
- Colleges are finding it increasingly difficult to raise funds via development efforts due to decreased availability and increased competition (18,19).
- For all of its advantages and efficiencies, the “information age” brings with it costly equipment demands (workstations, networks, information access costs, etc.). Further, equipment tends to turn over at a higher rate than in the past because it becomes outdated or obsolete more quickly.
- The shift from classroom to clerkship has resulted in additional costs, e.g., partially or fully salaried external clinical faculty. Further, some clerkship sites occasionally demand and receive additional support.
- Educating students to be capable of providing pharmaceutical care is far more labor intensive and requires a larger, differently structured faculty than traditional forms of education. This places an increased burden upon a school’s current budget that will only increase as the faculty mature and are promoted.

The committee confronted another, perhaps more insidious diminishing resource: faculty who are qualified to teach traditional basic sciences. Educators at several health professional schools have noted with alarm that it is becoming increasingly difficult to replace faculty who teach the traditional (descriptive) basic sciences courses (e.g., pharmacology) when they retire or otherwise leave. The problem appears to be related to the facts that today’s young scientists are more highly specialized than their predecessors, the lines between the basic biological and physical sciences have blurred over the years, and an increasing number of schools are recruiting faculty solely on the basis of their potential contribution to research rather than the applicant’s demonstrated knowledge of the content covered by a given course. As a result, it is probable that some professors are given the responsibility of teaching a subject about which they have little knowledge or interest. Although such a deficiency may level out as teaching experience is acquired, the notion of the teacher as an ongoing learner of the subject he/she teaches stretches credibility to new limits. In light of the possibility that this problem will not go away, the committee suggests that schools first evaluate whether basic science courses should continue with the content they have traditionally provided, or whether they need to be partially or entirely reconstituted.

All of the aforementioned demands on declining resources focused the committee’s attention on various methods that could be used to maintain educational preeminence not only in times of budgetary austerity, but for whatever future awaits pharmaceutical education. Included in these were conceptualizations of regional coalitions composed of schools that had agreed upon seamless curricula (i.e., curricula, partial or entire, that are interchangeable, thereby enabling the direct sharing of specific courses, etc.). Specifically envisioned were computerized courses, large lectures simultaneously made available at two or more schools via teleconference, and shared “traveling instructors,” etc. Schools in workable regions should begin to explore methods for sharing resources among them, including, but not limited to, the development of seamless curricula and various mediated forms of instruction.

COMMUNICATIONS TECHNOLOGY IN PROFESSIONAL EDUCATION

Background

The rapid development and application of communications technologies in the emerging “information age” have the potential to revolutionize traditional educational environments and practices everywhere. Traditional educational settings where learners are passive recipients of information provided in lecture format or from printed materials, are slowly but steadily giving way to computer-mediated communication of multimedia information on computer disk, CD-ROM, over local and wide area networks. Such environments portend a change in focus from teacher control to learner control, and from highly structured learning to flexible and responsive settings that offer a variety of options and advantages, including random access to information, active learning, problem solving, independent thinking, and knowledge construction.

The impetus for these changes is occurring simultaneously on two fronts: government/educational institutions and the commercial market, each of which has its own goal. Government and educational institutions, for example, are interested in improving communication, research, and practice through the effective use of technology. The impetus on the commercial/market side, as evident in the recent mergers of telephone, cable, communications, and software companies, is driven by the goal to provide consumer-oriented services such as interactive multimedia, video on demand, software companies, is driven by the goal to provide consumer-oriented services such as interactive multimedia, video on demand, video games, and other two-way services. Technology advancements in pursuit of commercial goals, such as fiber optic networks, wireless communication devices, personal digital assistants, and transfer modes able to simultaneously handle streams of voice, video, and data, will have a direct impact on the efforts undertaken by government, academia, and public education.

In the health sciences, these efforts are reflected in several major initiatives: The Integrated Advanced Information Management Systems (IAIMS), the National Library of Medicine initiative begun in 1983, seeks to develop integrated computerized communications systems across academic health science institutions that link library systems with individual and institutional databases for patient care, research, education, and administration.

Among the many goals of HPCC, the development of a National Information Infrastructure and the evolving superhighway, known as the National Research and Education Network (NREN)(20). IAIMS, a National Library of Medicine initiative begun in 1983, seeks to develop integrated computerized communications systems across academic health science institutions that link library systems with individual and institutional databases for patient care, research, education, and administration.

Among the many goals of HPCC, the development of a National Information Infrastructure and the evolving superhighway, known as the National Research and Education Network, are particularly relevant to this discussion. Both research and education will be advanced by efforts to connect health professionals to a variety of computerized information resources involving medical imaging, biotechnology, and information-retrieval tools. This initiative has recently resulted in a contract awarded to the West Virginia Network to apply and evaluate advanced networking technologies
for delivering health services in both rural and urban areas of West Virginia(21).

The impact of these initiatives, combined with the technological advances in the commercial market, will have an enormous influence on the education and clinical practice of health professionals and the creation and delivery of continuing professional education. Although we may anticipate great changes in the methods and delivery systems in health professions education as driven by these initiatives and market forces, it is not clear as to whether a coherent plan will emerge for the seamless interconnection of the varied information resources and technologies.

The following are steps that a college of pharmacy can take to ensure active participation of students and faculty in the implementation and use of communications technology:

- Develop a strategic plan and incorporate the use of technology into the organizational mission statement.
- Identify administrative leaders who are committed to the concept of integrating computerized information systems across the health science institution, linking library resources with individual and institutional databases for patient care, research, education, and administration.
- Establish a communications technology review committee at each institution to: (i) survey the present infrastructure for electronic communication; (ii) develop short- and long-term plans enabling the college to actively participate in available electronic resources available to pharmacy (e.g., identifying fiscal resources, recruitment of technology facilitators, investment in hardware and software platforms, development of a network architecture, implementation of faculty and staff development programs); (iii) develop a plan to create pharmacy resources for in-house application and for sharing with other colleges; and (iv) explore strategies and techniques for distance education.
- Identify and reward faculty who integrate computer-mediated communication technologies, both local and wide area networks, into their teaching and practice regimens.
- Establish electronic links with all other colleges of pharmacy to: (i) identify mutual areas of interest, needs, concerns: (ii) determine short- and long-term plans for creation of meaningful integrated database resources; and (iii) devise an implementation plan based on the client-server model of computer-mediated communication.
- Identify or hire facilitators with requisite knowledge and skills to create faculty development support training and to promote effective application of computer-based technologies.
- Identify and support student facilitators who become lead users of computer-based technologies. Many leaders (change agents) in the diffusion and adoption of technology in the health professions were innovative users of technology as students.
- Provide support and institutional rewards for faculty and students who create innovative applications of computer-based teaching programs.

RECOMMENDATION 2: AACP should devote the 1995 Annual Meeting (or, at a minimum, the 1995 Teachers Seminar) to communications technology. Faculty and administrators should be provided the opportunity to learn about emerging technologies and the educational benefits and efficiencies associated with them, understand the needed resources and infrastructure necessary for the implementation and use of communications technology, develop the skills necessary to successfully use these technologies in various learning environments, and discuss models for the storage and access of various types of computer-mediated instructional resources.

RECOMMENDATION 3: AACP should begin to explore potential uses of communications technology (e.g., use of an interactive, satellite network) for providing greater access to various Association programs (e.g., teleconferences, teleseminars).

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