Collaboration:
An Essential Element
in Curricular Reform

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ABSTRACT. Pharmacy education, like other professional schools and higher education in general, is in the process of transforming its curriculum. It is the premise of this article that such curriculum revision must include not only changing curricular content but developing new organizational structures and environments in which the curriculum will be designed and delivered. One approach to creating new organizational structures is to engage in collaboration with internal and external colleagues and constituencies as part of the curriculum revision process. This article presents one school's experience in doing so, along with five guidelines for those who are attempting similar curricular reform. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com]*

INTRODUCTION

Technological advances, rapid reforms in recertification and licensure, public criticism about the value and usefulness of institu-

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tions of higher education, and the pervasive discontinuity between education and practice have stimulated higher education to reconceptualize its approach to educating health professionals (1). In the field of pharmacy education, one of the outgrowths of this reconceptualizing has been the evolution of its mission as pharmaceutical care (2). Pharmaceutical care is defined as "the pharmacists' attitudes, behaviors, commitments, concerns, ethics, functions, knowledge, responsibilities, and skills for the provision of drug therapy with the goal of achieving definite outcomes toward the improvement of a patient's quality of life" (3).

When approaching the development of a curriculum that will achieve such a mission, those individuals who are responsible must be cognizant of the following realities:

* we live and work in a world of continuous transformation in which the only constant is change itself (4);
* there is a rapid knowledge explosion which makes today's certainty tomorrow's error and creates a future which is learning-oriented (5);
* sophisticated technological and scientific advances make the world of practice flexible and full of variety (6);
* the complexity of the problems one encounters in life and work necessitates integrating and synthesizing knowledge in a holistic manner to find order and develop appropriate solutions (7);
* intended educational outcomes at the university level must be related to and reflective of the realities of the world of practice (8).

In order to be prepared to deal with these realities future professional practitioners must acquire the capacity to think critically, operate reflectively, and engage in collaborative problem-solving. Thus, like the fields of education (9,10), nursing (11,12), and other health professions (13), the curriculum must contain content which is integrated and multidisciplinary, have relevance to the field of practice, contain experiences that focus upon application, and provide opportunities for students to engage in self-directed learning (14).

When approaching the task of curricular reform of such magnitude, it is vital to understand that the curriculum cannot be separated

from the context in which it is created. Nor can it be separated from the sociopolitical environment within which it must be delivered (15). It will not be enough to simply develop a curriculum plan: a plan is merely a blueprint that provides a guide for action. The changes required to prepare university students for the world of tomorrow are so fundamental that their implementation will require significant changes not only in the way content is organized and delivered, but must also involve changing the organizational structure in which the curriculum is designed, the relationships within and outside of that structure, and the existing communication patterns and networks (16,17). Thus, to engage in the process of curricular reform, one must also deal with the nature of the organizational changes that will be required to implement that reform.

COLLABORATION AS A CATALYST FOR CHANGE

The recognition of the interrelatedness of natural, scientific, and economic systems in the world (18) has affected organizational thought in all realms of the public and private sectors, leading to the adoption of new managerial and operational forms that focus upon developing collaborative nonbureaucratic relationships as a means for improving outcomes (19). Problems today are viewed less as independent and singular than as multifaceted and interconnected requiring multiple perspectives and expertise to solve them. When dealing with such important problems as reforming the curriculum, institutions will need to develop collaborative relationships and partnerships with others who have essential knowledge or skills that are needed to assure comprehensiveness and accuracy (20).

Such collaboration is rare at institutions of higher education. They tend to be places of isolation and autonomy where there is little faculty interaction when dealing with curricular issues (21); this is true of most colleges and the departments within them. Individualism rather than collaboration and collegiality are honored and rewarded. Thus, colleges and universities must adopt new models of operation in order to be competitive and to be prepared to effectively deal with the complexity of issues that they will have to address (22,23). This is particularly true in the health-care field where recognition of the interdependence of knowledge and skills

has caused the lines between various professions such as medicine, nursing, and pharmacy to become blurred (24), prompting some professional schools to require that their students work in collaborative teams as part of their educational experience (25).

Collaboration as it is used in this context is defined as "a cooperative endeavor that involves common goals, coordinated efforts, and outcomes or products for which the collaborators share responsibility and credit" (26). This broad definition is indicative of the types of working relationships that will be necessary to create meaningful curriculum revisions and organizational structures that will support them.

When initiating its curriculum reform, the Auburn University School of Pharmacy sought a process that would consider the societal and educational factors previously noted, be consistent with the nature of the curriculum to be created, and serve as a catalyst for change within the University. Therefore, the School decided to actively engage in collaborative activities as a means of strengthening the curriculum and initiating new ways of thinking and operating.

BUILDING INTERNAL COLLABORATIVE NETWORKS

The initial step in incorporating collaboration into the curriculum development process was the establishment of two internal committees with very different roles but with an interrelatedness that would necessitate collaboration between them. It was believed that those involved in developing the written curriculum would need to possess a broad base of content knowledge, have an understanding of the fields of teaching and practice, and come from diverse areas of expertise. It was believed that this would help ensure the creation of a comprehensive, relevant curriculum, and a process which would enhance the capacity of the college to implement it.

First, a Task Force on the entry-level degree was formed. The Task Force was responsible for the curriculum design process which involved establishing the broad conceptual framework around which the second group, the Curriculum Committee, would develop specific curricular outcomes, goals, and implementation procedures. The Task Force had a six-month time frame within which to complete its work.

An important element in creating effective collaboration was the organizational structure of both the committees. These groups contained at least one member from within each department in the School. These members were to represent their respective departments, report to them, get input from their colleagues, communicate this information back to the curriculum development groups, and be an advocate for the curriculum once it was developed. Committee membership was also structured to ensure that it would include individuals of varied ranks and years of experience and a diversity of backgrounds. For example, some had little if any field experience while others were still engaged in practice. Both groups also included student members. This participation gave students an opportunity to voice their opinions from a unique perspective and helped broaden the sense of unity and community within the School. Student involvement in this process is also vital because it models the type of cooperative collaboration these students will be expected to engage in the world of practice (27). The value of student representation is recognized by most schools of pharmacy, as student membership on such committees was reported in more than 80 percent of schools responding to a recent survey (28). The diversity in membership on these committees helped maintain a healthy balance between theory and practice and encouraged an attitude of mutual respect for each other's knowledge and type of expertise. Such diversity is important in helping to assure a comprehensive curricular plan and ownership by the faculty who must implement it (29).

There were three communicative methods used for assuring effective collaboration and integration of ideas between the curriculum design and development processes and the entire faculty. First, the membership was selected to include some individuals who would be active on both committees. These individuals were used to bridge information and understanding gaps and assist in the smooth transition from one group to another. Second, the committees met jointly several times during the six-month developmental phase. This allowed members of the Curriculum Committee to become familiar with the work of the Task Force and to provide input. There was also a joint meeting with these two committees and the entire faculty during this developmental period to assure an understanding of the

concepts being discussed and to allow individual faculty members to provide additional feedback. A similar meeting was held prior to the completion of the work of the Task Force. Third, the chairs of both committees met privately and regularly to ensure continuity, understanding, and consistency between the groups.

CREATING EXTERNAL PARTNERSHIPS

Careful selection of individuals internal to the organization as committee members was blended with the inclusion of members external to the organization who had important expertise or a stake in the outcomes to be achieved. Combining ideas of internal and external constituencies models the way in which our society will function in the future and the manner in which students will engage in practice (29). Although external members appear to be absent from the curricular reform process in most schools of pharmacy (28), we believed it was essential to include them. External members were selected to serve as content experts on both of these teams but were most critical on the Task Force, where they helped to create the conceptual framework for the curriculum. Among those included were the Dean of the School of Nursing, faculty from the School of Nursing and the School of Veterinary Medicine, and pharmacy practitioners. These committee members strengthened the process by:

- expanding the knowledge and information base over a broader content area,
- ensuring that the curriculum would be related to the needs of society,
- strengthening the relevancy of the curriculum to the world of practice,
- serving as a model of collaboration for students, faculty, and the colleges involved,
- assisting in keeping the focus of the discussions on target,
- helping to neutralize any hidden agenda issues within the internal environment,
- enriching and broadening the discussion, and

- enhancing and expanding communication, and assisting to minimize fears and misunderstandings across colleges and programs.

COLLABORATION
WITH AN OUTSIDE CURRICULUM EXPERT

A third dimension of the collaborative process used at Auburn University School of Pharmacy was the selection of an individual from the College of Education to provide expertise in the curriculum development process. The consultant had three major roles: 1. to assist the chairs in organizing and structuring the process, 2. to observe events and provide an unbiased assessment of strengths, weaknesses, barriers, and next steps, and 3. to aid committee members by providing content and process knowledge regarding curriculum design.

A discussion was held to determine whether the consultant would be paid for services or would be asked to serve on a voluntary basis. It was believed that payment would assure a certain level of accountability whereas participation on a volunteer basis would imply a personal interest and willingness to be of service. After evaluating these two options it was decided to seek the assistance of a voluntary consultant.

It was essential that the right person be selected. It was believed that the individual should be someone who was nonthreatening and who did not have personal ties to anyone in upper-level administration, which might make them suspect (30). Using someone already in a college within the same university was preferable because it expanded the concept of collaboration across disciplines, made the person more accessible, and could help create communication networks that might be of value to students and faculty. In order to identify a curricular expert for this collaborative reform model, the chairs of the Task Force and Curriculum Committee spoke with students and other faculty members to get recommendations. Once someone had been identified, a meeting was scheduled to discuss the endeavor and share ideas and resources.

This personal meeting assisted the chairs in determining whether there was compatibility among all parties. Such compatibility was

considered vital if the collaboration was to work effectively. Since the consultant would be functioning on a voluntary basis, the conversation included ideas about possible benefits of such involvement by connecting it to scholarly work of interest to the consultant. Potential opportunities included joint or individual writing and publication activities, personal growth and experience through this involvement, the possibility of joint presentations at conferences, and attending conferences of interest related to pharmacy reform that might be of value to the consultant.

When the consultant expressed an interest in becoming involved and was willing to serve on a volunteer basis, the role was formalized. The Dean of the School of Pharmacy wrote to the Dean of the College of Education asking if the education professor could be invited to participate in this endeavor. This gave the consultant visibility and credit for the activity both within the School of Pharmacy and the College of Education. It also expanded avenues of communication between the two Deans.

There are several advantages to including an external person with expertise in the process of curriculum development in pharmacy curricular revision efforts. Such a person can provide an outside perspective that is impartial in nature. He or she can also contribute information related to group processes and dynamics or provide guidance on how to deal with a problem or issue that arises without the internal emotional connections those within a department might have. In addition, such an individual can bring "expert power" which is generally trusted by those internal to the organization (31).

There are also some cautions that should be considered when using such services. Since consultants do not know the situation from an inside perspective, they may not understand or be sensitive to underlying motives and nuances. A lack of content knowledge about pharmacy education may sometimes hinder their ability to engage in dialogue or provide needed assistance. There may also be some individuals who will not trust consultants because they are outsiders who might be viewed as intruders.

Some methods for overcoming these problems used at our University included: having the consultant spend some time with individual members getting to know them, suggesting that the consultant avoid using educational jargon that might alienate others,

encouraging the person to spend time simply observing the meet-
ings without adding ideas unless asked to do so, and providing the
person with reading materials in the subject area to assist in becom-
ing more knowledgeable and comfortable about the content area.

BENEFITS OF COLLABORATION

Establishing opportunities for collaboration among those internal
and external to the college strengthened the curriculum development
process at Auburn University. Expanded networks of communication
were formed that have increased understanding, enhanced the shar-
ing of knowledge, and stimulated greater unity among Curriculum
Committee and Task Force members and the entire faculty. When the
curriculum plan was completed, it was accepted by the faculty
through the voting process. The Curriculum Committee has now
been restructured to include new members in order to expand the
opportunities for others to be engaged in the developmental process.
Collaborative endeavors, diverse membership, and the use of an
outside curriculum consultant will be integral to all future efforts.

Providing opportunities for faculty to meet, share, develop trust,
and collaborate with others in the curriculum design and develop-
ment process is enhancing the ability of the School to implement
the new curriculum and to maintain the capacity to adapt to chang-
ing conditions and future needs. This experience in collaborative
relationships and activities has led the curriculum leadership to
believe that collaboration is an essential element in creating a
foundation for successful curricular change. The process and proce-
dures used can be summed up in five foundational principles that
can serve as guidelines for others as they engage in curricular re-
form endeavors.

GUIDING PRINCIPLES
IN COLLABORATIVE CURRICULUM REFORM

*1. Curriculum design and development is a holistic, continuous
process that must include opportunities for individuals and groups
to learn, communicate, and change.* Institutions and the individuals
within them must recognize the reality of constant change and be

adaptive and proactive about it. Engaging in curriculum reform should not be considered as merely a task to be performed; rather, it should be an opportunity to develop the organization and the people in it. We view this process as a long-term endeavor that will require opportunities for open and frank discussion, personal and professional growth experiences, and continuous reexamination of the structures within which we function.

2. The curriculum reform process is related to and interdependent with society and must be compatible with the context in which it is occurring. Just as the boundaries between nations in this global society are becoming less apparent (32), the boundaries between academia, society, and practice are becoming more blurred. There must be a connection between curriculum and practice that is visible, meaningful, and substantial. Schools and colleges of pharmacy should include students and practitioners and faculty from other health and nonhealth fields in curriculum development to ensure that all voices are heard, all expertise is used, and models of collaboration are built into the curriculum reform process.

3. Higher education must commit to collaborative relationships that include both internal and external constituencies in the curriculum development and design process. Collaboration will be an essential element in building the interdependence and interrelatedness required to create supportive learning environments and connect education and practice (32). Institutions of higher education, like business and industry, must recognize the need to establish environments which include all constituencies in problem-solving, decision-making, and curriculum development efforts (33).

4. Internal collaboration must be across subject, department, rank, and position and should include students as well as faculty members. Curriculum committees should be structured to enhance communication networks and expand understanding. Establishing committees that involve such diversity helped establish a foundation for greater collaboration in the future. The ultimate goals are to build trust, create collegiality, and strengthen the ability, capacity, and willingness of individuals to effectively implement the curriculum (30).

5. Collaborative relationships with those external to the school or college should involve individuals who have diverse content and

process expertise. Diverse content expertise can assist in ensuring that the curriculum is broadly based and supports collaborative practice. Practitioners and those in other academic areas have helped expand the discussions at Auburn University. This has helped establish a more inclusive curriculum view and a more comprehensive plan. Likewise, a person adept in curricular design and development should be included to assist in guiding the process and to provide an objective perspective on how the process and those engaged in it are functioning. The expertise, objectivity, and support of such an individual have helped strengthen the process and our capacity to change.

CONCLUDING REMARKS

Collaboration in curriculum design and development can expand and enrich the dialogue by providing a variety of ideas, views, and expertise. It can enhance and strengthen communication networks and assist in enhancing creativity, productivity, and motivation (26). This, in turn, can increase organizational capacity to implement the reformed curriculum (13). Thus, the process of collaboration can itself serve as a mechanism for creating organizational change. Collaboration multiplies resources by using the expertise of those who are internal and external to the college, thus enhancing the final product (34). Perhaps the most important benefit of collaboration is that it can expand the capacity of individuals and groups to think creatively and thus enables them to more adequately face present and future challenges (35). Fostering the integration of knowledge and collaboration among colleagues and constituents in reforming the curriculum is a vital ingredient in stimulating positive organizational change. Using collaboration to develop and design a curriculum is an important avenue by which institutions of higher education can enhance internal and external communication, develop curricular programs that meet the needs of a changing society, and expand their ability to deal with the complexities of the marketplace and the world which their graduates will have to face. We believe that the five guidelines developed from our experience can assist others as they engage in similar activities. We hope they will serve as a stimulus for future dialogue and action.

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