Introduction and Committee Charges

The Bylaws of the American Association of Colleges of Pharmacy (AACP) state that the Academic Affairs Committee shall consider: the intellectual, social, and personal aspects of pharmaceutical education. It is expected to identify practices, procedures, and guidelines that will aid faculties in developing students to their maximum potential.

The 2017-18 Academic Affairs Standing Committee was given the following charges by President Steven Scott: 1) with the current and future generations of learners in mind, identify emerging and future models for teaching/learning and provide recommendations for the resources and strategies needed to change cultures within colleges/schools and support implementation of these models by more faculty; 2) builds the first call for educational research by individuals or groups of schools to what educational methods and tools can be used to advance the identification and acquisition of foundational knowledge as well as translating the knowledge to practice; 3) investigate the attributes of those who self-identify as lifelong learners among many professions and make recommendations for cultural shifts to self-awareness and lifelong learning in schools and colleges of pharmacy; 4) identify existing faculty and tenure promotion guidelines within the context of the above charges and Goal 3.1.4 of the Strategic Plan (Faculty Promotion Guidelines: Provide support for changing faculty promotion guidelines to members and institutions). Suggest materials and information and wording that could be recommended to all schools and colleges to amend their promotion and tenure guidelines to support the above.

During the October 2017 meeting of all standing committees, the Academic Affairs, Student Affairs, and Professional Affairs committees came to a realization that addressing these charges should involve taking a more holistic approach that is inclusive of the faculty, student, and preceptor perspectives. This report is one piece and moving forward, we recommend more collaboration and discussion across the standing committees when charges are overlapping.

Re-envisioning Teaching, Research, and Service in Pharmacy Education: A Call to Action

The faculty leading Doctor of Pharmacy programs are expected to develop new and innovative ways to enable student learning extending beyond simple acquisition of knowledge and skills development. AACP’s Center for the Advancement of Pharmacy Education (CAPE) provided 2013 Educational Outcomes and a vision of PharmD graduate competencies that, when achieved, ensure a practice ready pharmacist. The Standards 2016 ensure the education of pharmacists has an emphasis on co-curricular activities, the advancement of interprofessional education, and the adoption of the Pharmacist Patient Care Process (PPCP). Graduates of PharmD programs are expected to achieve competency in their approach to practice as well as demonstrate attitudes toward practice that align with its definition of professionalism. These new standards have expanded the scope of what can be expected from PharmDs when they complete their education. Graduates are expected to become agents of change and collaborative team leaders in a rapidly changing healthcare environment. Faculty members need to be
equipped with the right knowledge, support, and tools to ensure graduates are ready to meet the demands of modern and future practice.

The academy has seen a growth in scholarship and research around teaching and learning in pharmacy education, often referred to as the scholarship of teaching and learning (SOTL). The pharmacy profession is evolving, and the education must also evolve if the scope of practice is to expand. AACP and other pharmacy associations have invested hours and resources developing standards, guidelines, and recommendations for pharmacy educators that will likely best meet the needs of current and future pharmacy practice. Creating new knowledge pertaining to educational techniques, tools, and technology advances are critical for this growth and evolution. Despite there being recent growth in the value of educational research within pharmacy the SOTL has often been considered lesser or secondary to other areas of research in Colleges and Schools of Pharmacy. Thus the reason for some of the changes to this year’s academic affairs committee. This committee recommends the academy take a pivotal and intentional step towards further advancing SOTL as an expectation of faculty members whose primary role is teaching.

The academic affairs committee recognizes increased demands and expectations from ACPE should not simply be added on to the current workload of the faculty in pharmacy education. New models and workflow designs for faculty members must be considered in order to strike a sense of balance between teaching, research, and clinical practice. A call for changes in pharmacy education must include a focus on changing the structure, process, and duties of faculty members.

This report offers key recommendations to take steps toward this end:

1) Identify the unique issues in pharmacy and the ongoing and new challenges facing faculty members today in terms of ensuring successfully preparing pharmacy students to become future pharmacists;

2) Engage in SOTL and inquiry to improve the delivery of educational experiences in and out of the classroom;

3) Change the approach to teaching lifelong learning skills to faculty members by shifting the focus of education from the subject matter to the learner;

4) Demonstrate this commitment through offering a SOTL grant through AACP and developing promotion and tenure guideline recommendations that can inform future revisions of current guidelines being used by schools and colleges of pharmacy.

These recommendations may cause a change in culture at many institutions or at a minimum, a cultural paradigm shift. At the core of any culture change, there must be a commitment by those leading change, and a clearly articulated impetus for this change. There must be a tipping point that drives the momentum forward. However, the presence of a tipping point does not equate to a speedy result. Culture change takes time and a wholesale adjustment in an institution requires a critical mass of its members to understand, support, and act toward a change. The optimal time span needed for a culture change will vary from institution to institution. A certain amount of transparency is needed to help faculty understand their role, as well as the benefits and feasibility of the proposed change. All of this being said, a change cannot occur without action. The need for timely action may be viewed very differently by individuals depending upon the urgency of the need for change. Ultimately, if urgency is not present there is less motivation for immediate action. However, if a sense of urgency is created, action is required and thus jump-starts the process of change. Urgency as the beginning point of change is demonstrated in Kotter’s change management model. The process of change once initiated must be managed appropriately at each step in order to substantially affect a culture. Identifying champions for change and building a coalition, according to Kotter, forms a powerful way to help orient and engage faculty in pursuit and adoption of this change.\(^1\)

Everyone can contribute to educational research in a meaningful way that transforms the educational experiences of future pharmacists. What is asked of students in Doctor of Pharmacy programs has changed. This leads to the view that what is asked of faculty members should also change. Recommendations from this committee represent a call to action to transform the culture around faculty development and workload. The committee members believe that any cultural change or transformation in pharmacy education has to start with the faculty and their development.

Unique Challenges in Pharmacy Education

Acceleration of practice expectations, areas of opportunity for practice for the leaders and faculty in health professions are evolving at a furious pace. There is increasing awareness and urgency to include in curricula the 21st century skills of collaboration, communication, creativity, and problem-solving and a high standard of ethics. This urgency and evolution or revolution in educational needs is adding pressure on faculty members in academic institutions to perform in ways that are somewhat the
antithesis of previous actions and planning. Employers’ expectations of graduates have increased as well in the areas of practice and leadership. The intersection of new expectations, standards, and learning outcomes offers the faculty in pharmacy education an increased opportunity to implement emerging and future models for teaching and learning. In the Learning Coalition’s 2020 Forecast, they state that there is an opportunity for the academy to be creative in its approach to strengthening a culture of educational research to aid in the identification of this landscape.\(^2\) Inventive models for teaching and learning can enhance the growth and development of students, but they also come with many fiscal and human resource challenges.

Digital natives are embracing technologies of cooperation, including social media and constructs, and becoming a generation of augmented individuals. The age of Augmented Reality is upon us, and being embraced by anyone who owns a smart phone. Leaders, faculty, and learners will adopt organizational and educational models including social, collective, and improvisational practices suited to their needs. Digital literacy is an increasingly important competency. Novel learning modules emphasizing telepharmacy, real-time data from wearable devices, and genetic testing likely will require additional curricular emphasis on quantitative skills, statistics, and medical informatics. Instructors will have to promote a balance of mindful technology use and awareness of the digital footprints left behind.

Faculty members need to be able to create effective and differentiated learning experiences and environments to leverage this increased access and need for data. New tools and approaches to instructional design will expand our capacity to personalize learning. Such modifications also require significant IT infrastructure investment. The academy needs personalized, learner-centered experiences and environments that reflect diversity among learners and their learning needs. New approaches to facilitating learning necessitate new classroom configurations. More institutions are facilitating emerging trainings and strategies, such as the flipped classroom and team-based learning.\(^2,3\) Emerging curricular models, such as modularization, are disrupting existing credit hour systems and degree programs.\(^4\) This creates a need across the academy to evaluate new models of collaboration and learning to determine how to best evaluate and assess competencies. A barrier to advancements in these areas is that scientific, data-driven approaches to effectively facilitating personalization are still being developed.\(^3,5\)

Technology is not the whole solution, and successful educational personalization must incorporate effective pedagogy and include faculty in the development process. Faculty development in these areas is paramount to integration of new methods or teaching and learning facilitation into the academy, and AACP ought to be deliberative in its support and advocacy in this area.

Pharmacy faculty are developing courses that enable students to emerge as competent entry-level pharmacists. That isn’t enough for the year 2018 and beyond. Competence and excellence in practice is no longer only about information or “knowing things,” but it is also about “being able to do the right things” and “do them in the right way.” Over the last 20 years, the academy has moved toward this acknowledgement of competence and excellence through the adoption and update of the CAPE Educational Outcomes and the adoption of the Pharmacists Patient Care Process. The recent work on entrustable professional activities (EPAs) has been a move to identify the core elements of what student pharmacists need to be able to do to become emerging competent practitioners. Measuring or assessing student capabilities in these areas has been difficult as validated rubrics are limited particularly in the Domain 3 and 4 areas of the CAPE outcomes. Curricular content and delivery need to reflect the interdependence of the four domains within CAPE; foundational knowledge (Domain 1), with knowing what to do in practice (Domain 2), how to do it (Domain 3) and how to do it better all the time (Domain 4). Curricular delivery needs all curricular tactics to be integrated with activities and assignments that better reflect what students do with the knowledge they are acquiring when in practice. CAPE and EPA competency development focus on what and the why, but do not emphasize strategies on how to teach in these areas. To this end, the instructional design and delivery cannot be segregated from the expected learning outcomes. Therefore, each program must take into consideration all of these aspects to further develop alignment with standards set by the academy.

**Transforming Student Experiences by Transforming Faculty Development**

To fully realize these goals of personalizing learning and advancing assessment, a scientific approach must be undertaken to posit and test theories related to the development of new and emerging teaching and learning strategies. In order to integrate educational research and scholarship into the pharmacy education culture the holistic development of faculty members must be considered and this includes analyzing the workflow and expectations of faculty members. Redesigning how faculty and key personnel within a College or School of Pharmacy may be necessary to truly enable the transformation of the student experience. The increased
Lifelong learning is the self-directed pursuit of knowledge, skills, attitudes, values, and competencies that stimulates personal and/or professional development. Attributes that embody a lifelong learner are more complex and not always innate. Curiosity is often the foundation that leads lifelong learners to crave perspectives of others outside their immediate specialty area (interdependent/collaborative). These types of learners take ownership, are persistent/relentless, and are self-directed in their pursuit of knowledge. These practices often help them become experts in areas of professional content and pedagogy, but it also drives them to recognize the benefits of personal/professional development. Curiosity combined with an awareness of the need for personal/professional development drives learners to become self-aware and strive to improve their own attitudes toward learning. Lifelong learners recognize the value of setting goals and developing strategies to meet those goals. This process of forward-thinking directs these learners toward active reflection and with proper guidance, the ability to identify growth opportunities for future challenges and to effectively survive change. Lifelong learners will sacrifice time to gain knowledge, approaching daily tasks and challenges with resilience and grit. These sacrifices allow them to be adaptable with a sense of flexibility that is not daunted by failure.

Benefits of Lifelong Learning Attributes

The profession leaders value lifelong learning. This is evident in the ACPE Standards 2016 for both pharmacy education and continuing professional development guidelines. Attaining personal/professional positive health outcomes aligns well with a pursuit of up-to-date medical knowledge and the improvement of patient care. Continuing Education (CE) and continuous professional development (CPD) programs are often specifically designed to improve patient safety and decrease errors. Educational research suggests that those who embody lifelong learning skills can develop other qualities such as self-confidence, self-efficiency, self-understanding, and a sense of belonging. These psychological outcomes of learning promote attitudes and practices conducive to positive health outcomes. Since CPD is a self-directed approach to learning, the approach to teaching lifelong learning skills shifts the focus of education from the subject matter to the learner.

Engaging Students in the Pursuit of Lifelong Learning Attributes

Identifying lifelong learners and effectively developing lifelong learning environments are two related yet very different challenges. Developing lifelong learning skills requires a classroom environment that stimulates curiosity and integrates effective self-directed opportunities for learning. According to Daniel R. Tobin, all learning is self-directed. However, it is important that students know how to focus the knowledge and how to use it as a foundation upon which to continue learning. A faculty member’s beliefs and approaches toward learning can directly influence a student’s attitude toward learning. Perception is everything. Even when a faculty member understands or believes in the importance of lifelong learning, if knowledge/information is simply presented (given) to students, they will simply receive it. If knowledge/information is shared in such a way that promotes and stimulates discovery, students will adopt this process of discovery for themselves. Common methods emulating discovery, stimulating curiosity, and integrating self-directed learning revolve around active learning or blended learning. Such environments increase student engagement in the learning process. Asking questions effectively in traditional lecturing (Socratic method) can also produce engagement that leads to similar results.

Faculty members can create engaging environments in the classroom through inquiry-based learning, a guided form of active learning that is constructed by posing questions related to a subject and then guiding student toward the correct pathway that leads to the answer. Effective implementation of this method requires the faculty to provide intermediate goals and milestones for students to stop and think about what they have learned, then orient themselves to the proper direction for application of this new knowledge or skill, as well as where to watch out for misapplication that may frustrate their ability to self-direct their learning once they leave the classroom. It is
Institutionalizing New Approaches

Continual change can be taxing and efforts may wax and wane. This undulating cycle is natural, but if not monitored can produce complacency. One way to maintain progress is to promote a variety of activities that enhance excitement toward lifelong learning. Creating a community of lifelong learners instead of individual lifelong learners within a group not only augments the idea of partnerships but also stimulates a sense of inclusion, promoting involvement.

Focus on how aspects of lifelong learning contribute to three common areas of a faculty member’s annual plan (Teaching, Research/Scholarship, Service, and Clinical Practice) can provide a platform for continual review. Identifying activities related to lifelong learning for each of these components will accelerate the infusion of these characteristics in all areas of practice. Involvement in national committees or special interest groups (SIG) and attending focused training courses expose faculty members to a broader range of perspectives providing both research opportunities as well as extending the sense of community that encourages service outside the faculty’s own institution. Encouraging the faculty to view students as partners in the learning process extends the task of teaching from mere instruction into the modeling, coaching, and facilitating as embodied in ASHP’s 4 preceptor roles. The modeling and integration of environments that mirror actual practice and the teaching in practical settings can bolster habits of lifelong learning.

Faculty members that focus on process-oriented teaching also establish a practice for teaching lifelong learning skills. Process-oriented teachers design classroom activities that gradually move students toward ownership of learning by focusing on “knowledge building” as opposed to “knowledge giving.” Faculty members need to ensure that a student fills in any missing gaps of knowledge to ensure sustainability for the future. A challenge lies in the fact that learning is a dynamic process influenced by social and emotional elements just as much as it is by the classroom environment. Social and emotional aspects of learning (SEAL) set the stage for a student’s ability to learn effectively. This highlights the vital need for the development of affective skills/attitudes and the integration of these skills into the intellectual discovery process. Just as students require awareness and development of social and emotional skills to effectively learn, so faculty members likewise require the similar development of these skills and attitudes in order to effectively teach.

Evaluating Lifelong Learning

Continuous professional development needed to effectively incorporate lifelong learning skills into practice for faculty members can be a vulnerable journey. One way to kindle interest for seeking personal/professional growth is to provide a framework that guides the faculty to incorporate activities specific to promoting lifelong learning into the expectations of a faculty position with...
enough flexibility to still maintain choice and ownership. To help the faculty look for specific activities, the leadership within a College or School of Pharmacy might provide aids in crafting goals that lead toward personal/professional growth. Transparency is crucial for helping the faculty understand why specific goals are needed for their personal and professional development. Providing transparency, applicable examples/data, and a feasible plan can help faculty clearly understand the necessity and personal value of embracing concepts of lifelong learning.

**Overcoming Barriers to Developing a Culture of Lifelong Learning**

Putting forth effort toward a change without considering and addressing barriers is counterproductive. Including faculty in the decision making process as much as possible can also help overcome common barriers. Any decision must be well informed and the sharing of knowledge itself about a vision of change. Ensuring transparency and vision can help build awareness and confidence when a faculty is in the decision making process. One common barrier is a faculty member’s belief that student learning is rigid or is similar to learning in past generations. Another barrier is that certain subjects cannot be taught effectively using newer pedagogical methods, or faculty members may lack training in or understanding of teaching approaches they have not personally used. The limited data available for evaluating teaching methods seem to be most useful for specific students/topics and not much related to health professions in general or pharmacy specifically. Some faculty members struggle in rethinking their role and making the move from responsibility for the content in specific courses or content areas to having responsibility for ensuring that students develop in many areas and competencies. Lastly, the faculty member may experience situations where they believe the effort they put toward developing their teaching and other skills that impact the lifelong learning of students may not align with the promotion and tenure process at their institution. Finding appropriate stability for the faculty in these areas is essential to overcoming the barriers described here.

**Recommended Promotion and Tenure Guidelines to Emphasize Educational Research**

The Academic Affairs Committee recognizes that making recommendations that impact the scope and role of the faculty in pharmacy education should not be discussed without offering recommendations related to promotion and tenure guidelines. This report offers suggestions to those responsible for conducting promotion and/or tenure reviews at Colleges/Schools of Pharmacy. The suggestions provided, speak to various audiences - notably Deans, Assistant/Associate Deans of Academic Affairs/ Faculty Affairs, Department Chairs, and senior faculty who often participate in evaluating portfolios of faculty members seeking promotion and tenure. Promotion and/or tenure guidelines across Colleges/Schools of Pharmacy often place priority on the quality, significance, and impact of teaching, research/scholarship, and service. Promotion and/or tenure are generally granted to faculty who demonstrate success in each of these areas. Success is commonly defined as evidence of noteworthy achievement while meeting, or exceeding expectations in each area. Promotion/tenure guidelines ought to be transparent, and made available to faculty during the recruitment process, and formally at the time of appointment. The committee members encourage Department Chairs and Deans to be involved in the process to ensure alignment with the formal guidelines at the institution. Members of the committee recognize that additional departmental and institutional considerations (collective bargaining, for-profit/non-profit status, etc.) may also play a role in promotion or tenure decisions. The following sections provide suggested indicators, factors, and assessments to consider when evaluating teaching effectiveness, research/scholarship achievement, and service excellence.

**Effective Teaching**

An effective teacher is one whose work is characterized by a commitment to the subject, to student, self, and to continuous quality improvement in teaching. The effective teacher has a systematic and coherent knowledge of the field, maintains currency with its developments, and is able to communicate this knowledge. An effective teacher is actively concerned with and engaged in the development of affective skills/attitudes and the integration of these skills into the intellectual discovery process and employs innovative and risk-taking pedagogical approaches that foster inclusivity, self-awareness, lifelong learning, and student success. Effective teaching encourages critical thinking, welcomes a diversity of opinion, and is considerate and fair. The effective teacher welcomes and benefits from constructive criticism.

**Measures of Teaching Effectiveness and Improvement**

Evidence of effective teaching ought to include an array of assessments and/or documentation that capture the trajectory of teaching effectiveness from the time of appointment (or last review, if being considered for full professor) until the time of review before the promotion/tenure committee.
Professional Achievement Through Scholarship and/or Research

Professional achievement is characterized by regular involvement in original research including the scholarship of teaching and learning (SOTL). Professional achievement is also achieved by efforts to communicate the results of professional research/scholarship activity beyond the College/School at a level recognized by departmental and other faculty colleagues. Research and scholarship achievement also constitutes recognition from peers outside the College/School, through awards, grants, or invitations to present at professional conferences, collaborate, publish, lecture, or teach. Peer-reviewed publication is a major index of scholarly achievement. The committee advocates that research/scholarly productivity be measured in terms of publication quality rather than volume of published material. Additional considerations include the significance, and impact of the scholarly products and the progress towards completing future work. Professional scholarly achievement may be supplemented, but not replaced by, participation in professional societies and by editorial and consulting services.

The SOTL ought to become valued and weighted for promotion/tenure in a manner similar to biomedical/pharmaceutical science, clinical science, or social/behavioral/administrative science research. The scholarship of teaching and learning should follow best practices and be:
1. Inquiry focused on student learning
2. Grounded in context
3. Methodologically sound
4. Conducted in partnership with students
5. Appropriately public

The quality, significance, and impact of SOTL may be evaluated based on the merits of other types of research evaluated for promotion and tenure, including hypothesis, merits of the experimental design, procurement of necessary funding, and in general, publication in peer-reviewed journals.

Effective Service

Service contributions often span a wide range of activities and forms, including service on standing and ad hoc committees, the assumption of administrative, governance, or organizational duties either within or outside departments and programs as the need arises, and participation in various programs of benefit to the College/School, University, the professional field of discipline, welfare of students, and engagement with the community at large. Candidates for promotion/tenure are encouraged to have made substantive contributions in one or more of these areas.

Measures of Productive Service

Evaluation of administrative and other professional service should go beyond a simple inventory and expectations of good citizenship to the College/School to include an evaluation of the range and quality of the services rendered. Each faculty member's service will vary with their individual circumstances and interests. Differentiation of work and participation level required should be considered.

SOTL Grant

In order to emphasize its commitment to changing the culture in pharmacy education to increase the value of educational research, AACP has implemented a SOTL grant during the spring of 2018. The members of the Academic Affairs committee will serve as the inaugural reviewers of applications for the grants. This grant is a first step in creating opportunities for funding of educational research in pharmacy.

Policy, Recommendations, and Suggestions from the Academic Affairs Committee

The Academic Affairs Committee offers the following policies, recommendations, and suggestions as a result of its work during the 2017-18 year. The work of the committee affirms current policies, suggests amendments to current policies, and believes AACP should consider new policies. Additionally, the committee also has recommendations and suggestions for the association and the member institutions represented by AACP.

Policies

The committee affirms the following policies and believes this report supports and highlights the following:
1. AACP encourages timely curricular change that transforms education models and advocates for accreditation standards that are responsive and flexible, and that support effective assessment of the impact on students and faculty. (Source: Argus Commission, 2013)
2. AACP endorses evidence-based education, continuous quality improvement, rigorous accreditation standards and assessment. (Source: Standing Committee on Advocacy, 2012)
3. AACP supports the development and implementation of curricular components and associated instructional strategies which assure a common set of core competencies and knowledge concerning population-based epidemiology, the determinants of health, effective programs in health promotion and disease prevention, and primary health care services delivery for all health
professionals. (Source: Professional Affairs Committee, 1994)

The committee believes the following amendments should be made to current AACP policies:

1. Curricular modifications should occur such that competencies for leading change in pharmacy and health care are developed in all student pharmacists, using a consistent thread of didactic, experiential and co-curricular learning opportunities and takes into account the overall impact on faculty workload and balance. (Source: Argus Commission, 2009)

2. AACP supports innovative faculty development to facilitate appropriate utilization of new models of teaching and learning and the continued study of these models through the scholarship of teaching and learning. (Source: Argus Commission, 2013)

3. AACP encourages all colleges and schools to clearly identify guidelines by which the scholarly, teaching and service activities of all faculty members (tenure-track, clinical, instructors, preceptors, public service, administrative) will be evaluated.

The committee believes the following policies should be considered for adoption by AACP:

1. AACP encourages all colleges and schools to value all types of research including, but not limited to educational research, scholarship of teaching and learning, biomedical/pharmaceutical science, clinical science, or social/behavioral/administrative science research, without giving added weight to one type over another when evaluating faculty members especially during the promotion/tenure process.

2. AACP encourages all colleges and schools to conduct full reviews of faculty workload when engaging in full curriculum revisions, making major changes to address new accreditation standards, and when making large-scale changes to the instructional design of courses, IPPEs, APPEs, and co-curricular experiences.

3. AACP recognizes the scholarship of Teaching and Learning and encourages recognition and reward for faculty and staff of schools and colleges of pharmacy who engage in efforts to create new knowledge and advance teaching.

Recommendations

1. AACP should facilitate the dissemination of experiences related to developing and assessing life long learning skills and self-awareness in students and faculty via section programming, and themed issue in association publications and webinars.

2. AACP should provide grants to faculty and staff in schools and colleges of pharmacy for educational research that is translational across disciplines and can cause changes in culture according to the Strategic Priority #3.

Suggestions

1. Colleges/schools should integrate strategies that enhance the engagement of faculty and students in the development of a culture that promotes life-long learning.

2. Schools and Colleges of pharmacy should specifically identify educational research and SOTL in its promotion and tenure guidelines especially for those faculty members whose primary responsibility is teaching.

REFERENCES


5. The application of entrustable professional activities to inform competency decisions in a family medicine residency program. 2015. *Academic Medicine*. 90-888-897.


The following references were used as resources to the paper:


redesign at the Northwestern University Feinberg School of Medicine. *Academic Medicine.* September 26, 2017

6. Roemer BM, Azevedo T, Blumberg B. Looking at graduate medical education through a different lens: a health care system’s perspective.


