COMMENTARY

Considering Retention and Curricula in Reframing Pharmacy Enrollment Challenges

Evan T. Robinson, PhD a Gayle A. Brazeau, PhD, b,c

a Creighton University, School of Pharmacy and Health Professions, Omaha, Nebraska
b Marshall University, School of Pharmacy, Huntington, West Virginia
c Editor, American Journal of Pharmaceutical Education

Corresponding Author: Gayle A. Brazeau, PhD, Marshall University, School of Pharmacy, One John Marshall Drive, Huntington, WV 25755. Phone: 304-696-7390. E-mail: brazeau@marshall.edu.

Submitted April 19, 2022; accepted June 7, 2022; ePublished October 2022.

Enrollment in pharmacy education has been a topic of extensive discussions as the number of applications has declined and some pharmacy programs have either not met enrollment goals or decreased incoming class sizes. This commentary poses two questions that we must ask ourselves as an academy. First, is it possible to realistically do more to recruit our way out of this situation in the next three to five years and beyond. Secondly, how, if possible, will pharmacy colleges/schools avoid the significant and transformative forces that could impact higher education in the future. Forces that are impacting higher education include changing demographics, transitioning from an industrial-based economy to a knowledge-based economy, and the continuing advances in technology with increased globalization as component of all three of these forces. To address these questions, the concepts of student retention and success as well as considerations for reframing current curricular and pedagogical models and beliefs are challenged. In that pharmacy enrollment challenges are not likely to be easily resolved in the next few years, the academy must place additional emphasis on issues related to student success and the design of our educational models and programs.

Keywords: curriculum, enrollment, retention, student services, online learning

The Canadian journalist Michelle Dean provides great insight into our current challenges in recruiting students to the profession of pharmacy when she reminds us that “crisis forces commonality of purpose on one another.” A key collective focus for our colleges/schools of pharmacy, professional pharmacy organizations, and employers is to increase student interest and applications to our Doctor of Pharmacy programs. The importance of our profession to our patients and our health profession colleagues necessitates our commitment to this undertaking. Our recruiting efforts have required colleges and schools to spend more time, effort, and resources to generate interest for students in pharmacy and more importantly to submit their applications. We also see pharmacy programs investing in scholarships or tuition discounts subsequently decreasing net tuition revenue while at the same time having increased costs to fill each seat. Yet, despite these Herculean efforts, pharmacy applications since 2013 continue to trend downward or flat with many programs not achieving their goals for the size of their entering pharmacy class. As seen in other industries that experience demand fluctuations and changes due to the competitive landscape, pharmacy education is also experiencing a natural correction in decreasing the number of available seats for students in our professional programs. Some may argue this decline coincided with a decreased trend in college applications because of COVID-19 pandemic, however interest and subsequent pharmacy applications were declining well before this time. Further complicating pharmacy enrollments is the forecasted enrollment cliff in the number of high school graduates and changes in the demographic makeup of these students in the years to come. There are two questions that we must honestly ask ourselves as an academy. First, is it possible to realistically do more to recruit our way out of this situation in the next three to five years and beyond. Secondly, how, if at all possible, will pharmacy colleges/schools avoid the significant and transformative forces that could impact higher education in the future. Levine and Pelt suggested that there are three forces that will be driving higher education and have the potential to fundamentally change our approaches from a fixed time, credit-hour, course, grade focused and just-in-case curriculum (defined as where students take courses as appropriate to their specific educational plan and achievement of required educational outcomes) offered by universities and colleges to a distinctly different business model focused on learning and competency-based assessments, pass-fail assessments, combination of certificates and degrees and a just-in-time curriculum that is offered by universities as well as other organizations and corporations.

Copyright 2022 by American Association of Colleges of Pharmacy.
Levine and Van Pelt assert that there are interconnected forces that can potentially impact higher education and include changing demographics, transitioning from an industrial-based economy to a knowledge-based economy, and the continuing advances in technology with increased globalization as component of all three.\(^6\)

The fundamental question that the academy must address even with more recruitment/admissions efforts is whether we can realistically expect a turnaround in recruitment and admissions given the internal and external forces impacting pharmacy education and higher education. We would argue that the challenges to ensuring we have students in our colleges/schools of pharmacy cannot be resolved solely by limiting our perspectives to recruitment and admissions strategies. The current challenges involve much broader concerns thus necessitating us to reconsider a wider array of issues, processes, and approaches throughout our programs.

In 2009 a total of 109,150 applications were submitted to colleges and schools of pharmacy and just 10 years later for 2019 that number was 40,292.\(^7\) Furthermore, given the present the number of applications for the fall of 2022 as of February 2022, this number will likely be lower for the incoming class of 2022.\(^3\) Like other professions, pharmacy colleges/schools must consider what will be the workforce needs moving forward in recruiting for our future classes as well as the question of necessary faculty and staff levels. This then creates difficulty in predicting what constitutes the appropriate steady state for pharmacy enrollment and graduates needed to satisfy future considerations for pharmacist direct patient care and non-patient opportunities. As such, recruitment and admissions are only one of the key considerations. The academy must consider a renewed focus on student retention and success, online educational offerings, and simplifying and differentiating our programs.

**Student Retention and Success**

Higher education has changed in ways large and small over the last 10 to 15 years as we experienced significant changes in student demographics, financial aid support, academic preparation, and social and disability issues.\(^8\) These higher education changes have filtered down to our colleges/schools of pharmacy since pre-professional programs and undergraduate students are a large part of the matriculation pipeline. During the pharmacy boom of the early 2000s, programs could recruit and enroll students who were able to navigate the curriculum with limited academic and personal support. This is not the same today when we are seeing students who require more academic and non-academic support than in previous years. One only needs to reflect on the number of students who have more complex life situations, struggle with social, financial, and psychological-social issues and require additional considerations and accommodations. We seem to have students who seem less academically prepared, need to take pre-requisite courses one at a time to achieve a satisfactory grade, have a greater number of pre-requisite courses that must be taken last minute to successfully matriculate into our programs, and who took pre-requisite courses more years removed than previously seen in our pharmacy applicants. This is not to say that we did not see the same challenges in our previous pharmacy applicants, but as the number of students in the pharmacy pipeline has declined, it seems that we see a larger percentage of our students needing this assistance consequently requiring more faculty and staff support to navigate successfully through our programs. Moreover, the magnification of these student issues has become more prevalent as we become more aware and are better at identifying these issues thus enhancing our attentiveness to providing the necessary guidance, advising, mentoring, and assistance. We must question whether we have the resources and expertise to provide this support at the levels necessary. Furthermore, do we subsequently have the commitment to create avenues to enhance retention, progression, and graduation during a time of continued financial challenges in our colleges/schools of pharmacy?

Student progression and retention issues in a time of a declining applicant pool combined with an enhanced focus on student success and progression, are more important than ever. Students, and perhaps some faculty, still have the commonly held belief that when we admit a student to our program, our college/school has the necessary supportive environment and resources to enable student success and graduation. We partner with our students with the understanding that they will do their part to be successful and progress through the curriculum.

Specific to student progression challenges, the student who struggles can and often does experience an array of emotional, physical, and psychological issues which can subsequently impact the student’s close friends and loved ones. Consider how we feel when a family member or friend is struggling with a professional or personal challenge, and how it impacts us. We need to remember that the struggles of one may not be isolated to the one.

There are also potential impacts to the program reputation or even the academy as our students struggle through the curriculum. With the expanding opportunities for future and current students to interact with each other through various websites and social media, our admission efforts must always be cognizant of the possibility that an individual who is required to leave the pharmacy program shares his/her story and a possible negative attitude which could subsequently discourage others from applying to the program.
Individuals who do not complete the program may also impact the confidence and attitude of other students in the program. For example, can we rule out the possibility that our current students may experience additional anxiety, stress, or decreased confidence as they see others who struggle through or leave the program and question what does this mean for them? Faculty and staff members who invested time and effort to help the students succeed can also be impacted, perhaps feeling deflated, disappointed, and frustrated in their roles as educators, advisors, and mentors as they see these individuals having to leave our programs or not being successful in licensure.

Challenges in student progression, retention, and success can also impact other aspects of our programs. Higher education has become much more litigious and as a result, administrators, faculty and sometimes staff may find themselves either second guessing their intentions or engaged in litigious activities. It is our impression that over the past five years or more the need to engage the Office of the University General Counsel seems to have increased as we confront challenges with student admission and progression issues and faculty and staff member issues.

Attrition also results in direct and indirect costs both to the college and students. This lack of financial stability to a program could become more unpredictable when including on-line students who due to different life circumstances may struggle or need to slow down their education. Given the challenges associated with pharmacy recruitment and admission, something we can control is to further commit to strong programs that promote successful student retention and progression for the desired learning outcomes combined with stimulation of student’s intellectual growth and curiosity as the foundation of our pharmacy programs.

Lastly, within our recruitment materials and efforts, have we truly been frank and transparent with our students with regards to employment prospects? In the rapidly changing job outlook for pharmacists should we focus less on the specific places they will work versus providing a greater focus on what they could do with their knowledge and skills in the broader job market? We must also ask what other important metrics can be utilized for evaluating the educational success of our individual pharmacy programs. Should successful licensure of our graduates be only one of several metrics for evaluating our pharmacy programs, particularly if we have students who pursue alternative careers independent of direct patient care and are successful in their career?

Online Educational Offerings

Further complicating our current admissions and enrollment challenges is the move by institutions to add either more opportunities for on-line educational offerings for portions of the curriculum or complete distance pathways to complement on-campus options to attract students. What is important to acknowledge upfront regarding online and distance learning is that it is not necessarily a cost savings to an institution and in fact has a variety of longitudinal costs as well as implementation considerations e external development partners that take a portion of the revenue. Depending on the tuition and fees model, it also has the potential to be more expensive to the student. Distance learning is a powerful and valuable consideration that can benefit a variety of learners as well as institutions, but it also has challenges. Distance learners present with different challenges as compared to students in our face-to-face programs. Some of the issues are unique, others are not, with possible differences being time and location and in some cases the age and familial obligations of the students. As such, our current structures designed for student support and for student/faculty/staff interactions and engagements may need to be reconsidered to ensure parity across learning pathway styles and experiences.

This is not to denigrate the potential value of distance learning. Enhanced technologies will be the foundation for future educational structures and pathways which can be extremely valuable in addressing the changing demographics, attracting a broader array of students, improving our educational offerings, and promoting lifelong learning. We can, and must, develop alternative pathways to enable all students to successfully progress and complete our programs. This requires programs to commit to advance new and innovative models of student support and engagement which will most likely result in additional costs to the college/school.

Simplifying and Differentiating our Programs

We are hearing more and more conversations about the content, design, and simplification of health professions education including pharmacy. Curricular complexity, density, and hoarding along with required analytics to meet the accreditation standards are also discussed across health professions education. In some aspects, it seems that pharmacy education utilizes aspects of a just-in-case curriculum, specifically meaning teaching our students everything about every patient and every situation, which by extension could be an example of a faculty-centric curricular thinking versus student or practice-centric thinking.

There will not be easy fixes for these challenges at our individual institutions or across the pharmacy academy. It seems that much of our curricular design is centered around a check box mentality to address competences, processes, and
activities to address the current accreditation expectations. However, as our future unfolds with new accreditation standards and expectations, other opportunities will become evident allowing colleges/schools to genuinely innovate in how we teach, serve our students, and work together to advance the future of pharmacy education. Programs will need to build upon current student-center learning approaches and outcomes and move towards the next level of educational modeling that is neither time nor credit dependent.

Colleges/schools can use curricular approaches and educational models to further distinguish themselves from other programs in addition to touting their unique vision, mission, goals, and culture. Can we rule out that other organizations/corporations will not compete with the current pharmacy educational structure and system to meet the needs of pharmacy students? Can we rule out that other organizations/corporations will provide the platforms for a competency-based and just in time curricular design reducing the cost of a pharmacy education or promoting alternative career opportunities? The idea of competency-based education and developing models of teaching and learning that are less restricted by the time and process fixed constraints such as courses, credit hours, semester hours and years of study has been discussed and represents an area worthy of further exploration. How can we move to a system that allows for educational models founded upon an industrial-based economy to one that is more dynamic and adaptable to a knowledge-based economy? Further, one that is centered on students demonstrating desired competencies required for pharmacists committed to life-long learning, intellectual curiosity, entrepreneurism, and a willingness and passion to explore and develop new and novel career pathways?

President John F. Kennedy summarizes the essential importance of change when he reminded us that “Change is the law of life. And those who look only to the past or present are certain to miss the future.” Pharmacy education is currently experiencing the perfect storm as we navigate challenges in our admissions and retention, revisions in the accreditation standards, modifications in our individual college/school curriculums and uncertainty in the pharmacy workforce demands. Now is the time for the academy in collaboration with the Accreditation Council for Pharmacy Education and other key pharmacy organizations to utilize this current recruitment and admissions crisis as an opportunity to critically reconsider the entire nature, scope, and design of pharmacy educational programs and structure. More importantly, we must consider this recruitment and admissions crisis as the alarm for us to come together collectively, colleges/schools, the profession, and our accreditors, to address what is essential to the future of graduating successful Doctor of Pharmacy students who can engage in a broader range of career opportunities.

ACKNOWLEDGMENTS
We would like to thank Dr. Russell B. Melchert for his thoughtful suggestions and recommendations for this commentary.

REFERENCES


