

Techniques for Addressing Healthcare Inequalities by Increasing Diversity in Pharmacy School Admissions

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Abstract

The paper looks at the relationship between how pharmacy programs handle admissions and the diversity in the healthcare workforce. The Special Committee on Admissions of the AACP was asked to assess how pharmacy programs select students, explore new approaches seen in other health professions and form suggestions for broadly looking at students who could succeed in healthcare after graduation. The committee concluded that using traditional measures such as GPA and PCAT is not strong enough to predict a student's ability in the medical profession and these measures might limit access to other candidates. To address challenges facing the profession, the committee has suggested using holistic review processes that match cognitive and non-cognitive skills, developing focused recruitment plans and preparing united guidelines for admission at universities. The paper points out that by developing a workforce with different backgrounds, community pharmacies can provide culturally aware care, address health differences experienced by many communities and benefit from different approaches to solving problems. Most of these recommendations can help identify students who are motivated and skilled to act as leaders so they benefit all parts of society.

Keywords: Pharmacy education, admissions, diversity, holistic review, recruitment, non-cognitive assessment, health equity, workforce development, cultural competence, professional leadership.

1. Introduction

Today, landmark changes are needed in pharmacy admissions to remain current with healthcare and to serve the greater diversity of people. The creation of the AACP Special Committee on Admissions was prompted by pharmacy school deans in 2012, who questioned: "Are our students becoming innovators and leaders or instead, becoming those who avoid change and follow others?" As a result, the entire Academy re-evaluated its current selection processes to see if they accurately identify future pharmacy leaders and people who can significantly improve healthcare (1).

This committee was created because it is realized that standard measures alone are not enough to discover all the talents and abilities important to pharmacy work today. ACPE Standards and Guidelines recommend that admissions guidelines should show that a student has skills to become a successful professional and an active learner throughout life. When selecting students, ACPE's Guideline 17.3 advises to pay attention to qualities such as curiosity, leadership, maturity, empathy, good moral judgment, motivation, hard work and communication.

Many reasons are why it is important to analyze the admissions process in pharmacy. It encounters changes in the health system, less interest in pharmacy programs and stronger competition for the best students from a growing number of colleges. As a consequence of these factors, we now have to find new ways to select and train aspiring pharmacists.

The committee was tasked with reviewing current admissions, considering new ideas in other areas and formulating ideas that can be used to assess people who are likely to excel in their chosen practice and lead in their field of medicine. It went beyond enhancing existing measurement systems and considered requirements for pre-pharmacy, various recruitment techniques, criteria for acceptance and the practices colleges employ when deciding on international and "non-traditional" candidates.

This document is based on the idea that pharmacy schools should make certain their admitted students are in a position to deal with a demanding curriculum and future changes in their profession. As help for the Academy, the committee reviewed different strategies for recruitment, admissions and innovation in pharmacy programs and health sectors as a whole (2).

The team is aware that to build a quality pool of applicants, the search for new candidates begins prior to

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admissions. All pharmacy schools should collaborate to ensure that students are well-prepared for future pharmacy careers. White et al. draw attention to the need for recruitment to reach beyond a higher number of applications and focus particularly on bringing in populations with different backgrounds to strengthen and benefit the profession as it serves a growing number of diverse communities.

When analyzing admission procedures, the committee investigated how schools measure a student's pre-pharmacy skills, apply the Pharmacy College Admission Test (PCAT) and assess factors other than cognitive skills. Back in 2011-2012, the Argus Commission proposed incorporating validated exams of inquisitiveness, critical thinking and professionalism into admissions and suggested cutting down on pre-pharmacy education needs. This method relates to medical education, where the AAMC and HHMI have produced papers with lists of necessary skills and knowledge to enter medical school.

They discovered that many schools say they can successfully look at students' education skills but have trouble with evaluating other skills. To assess these factors, certain schools carry out interviews, let applicants write about themselves, perform writing tasks, exercise critical reasoning, solve problems with a group of people, test with standardized interview questions and Multiple Mini-Interviews (MMI). Nevertheless, there are many differences in how schools use holistic review and assess the non-academic side, so more common training and education are needed (3).

Innovation involved the adoption of a whole person review process for consideration when evaluating students. Holistic review is outlined in the literature as a forgiving way to evaluate applicants, by measuring their readiness as future pharmacists using different approaches. Here, candidates are measured using criteria set by the institution, meant for a broad audience and centered on its mission, used in the same way for every candidate.

Other similar professions have made considerable progress towards using holistic reviews. The ADEA arranges workshops for admissions officers to ensure their practices are consistent with the principles and attitude of their individual schools. Along the same lines, the Association of American Medical Colleges (AAMC) created a guide, "Roadmap to Diversity: Integrating Holistic Review Practices into Medical School Admission Processes," that offers a flexible system for connecting admission goals with institutional objectives.

Since pharmacy practice has several aspects requiring making solid clinical decisions and offering patient care, holistic review is clearly needed. The field of pharmacy places value on several personal qualities stated in the literature, for example: altruism, communication skills, conscientiousness, creativity, critical thinking, empathy, ethical conduct, strong curiosity, leadership, maturity, motivation, stick-to-it-ness, professionalism, resilience and working well with teams. They go along with academics and significantly influence a person's achievements at work (4).

The ideas shared in this white paper guide us as we emphasize the importance of creating a diverse admissions process in pharmacy education. Holistic review allows schools to find individuals with the skills to perform well and also drive new ideas and better patient care across all communities.

2. A Review Based on Many Factors: How to Bring About Meaningful Changes in Admissions

Evidence Supports the Use of Holistic Admissions

Evidence suggests that there is a complex link between usual admission measures and succeeding in the profession of pharmacy. Current investigation of this topic which is mostly limited in scope and works with just a few institutions, suggests that considering cognition only misses other useful aspects about an applicant's ability. GPAs and test scores, useful for anticipating students' grades in classes, prove to be poor indicators of their performance in clinical duties, leadership qualities and career advancement. For this reason, it is important to measure students using assessments that look at their cognitive skills and key fundamental non-cognitive traits.

There is evidence that relying only on standard criteria in admission hinders diversity and prevents identifying students who show the personal attributes linked to strong performance in the field. The findings of studies in this area reveal that many applicants from underrepresented groups show strengths in working with people from various cultures, serving communities and having a strong spirit qualities most modern health settings appreciate but overlook in previous admissions. Studies indicate that reviewing more aspects in the application process makes the group of admitted students both more diverse and of higher quality (5).

Holistic Review Ways to Implement

To make holistic review a practice, universities must rework their methods of assessing students. Some of the leading universities evaluate applicants by breaking down their data into several groups and staging the assessment of each group in sequence. Initially, admissions officers evaluate a person's academic skills and then move on to test non-cognitive factors with both standard and unique methods. The MMI approach, learned from medical courses, has become well-known for standardized evaluation of a person's social skills, decisions on ethics and ability to solve problems.

All admissions staff should be well instructed to recognize and avoid personal bias in judging human traits and assess performance evenly. Those following holistic review have established rating systems where each characteristic is assigned behavior-based points at various performance stages. They help maintain accuracy and also allow for noticing what each person contributes to the team. Exercises in calibration guarantee that the individuals reviewing qualitative attributes assess them as consistently as possible.

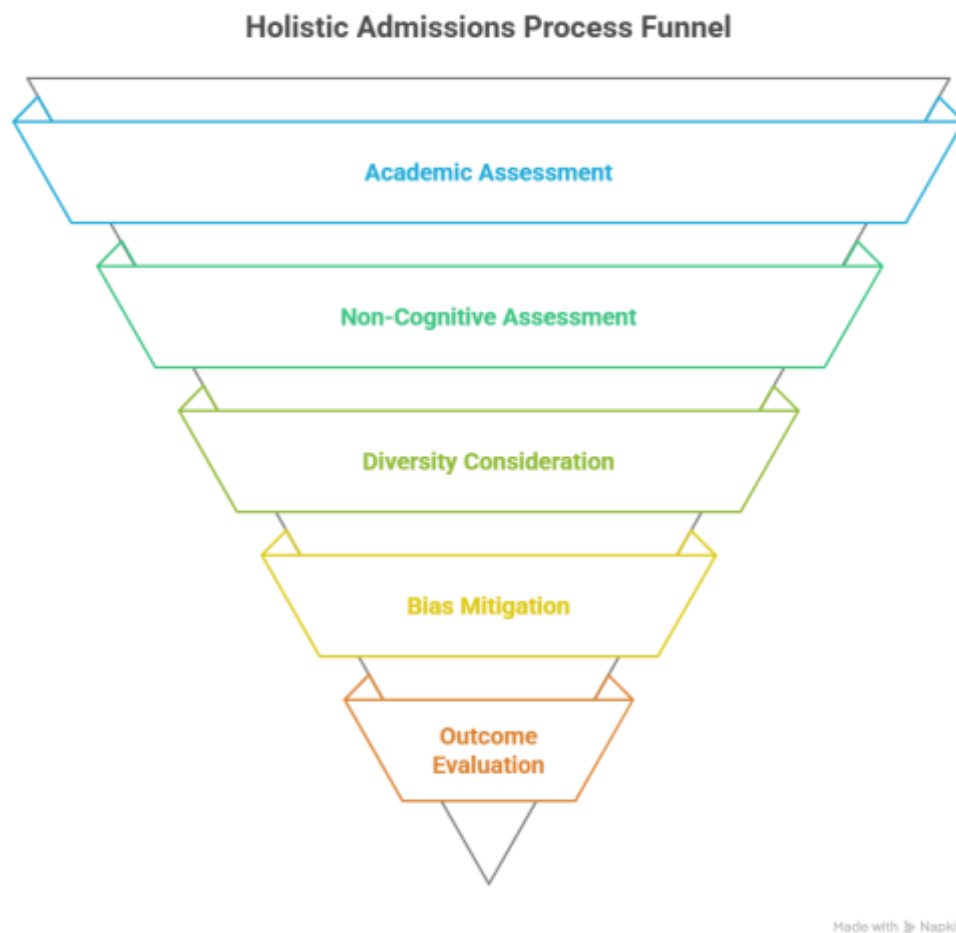


FIGURE 1 Holistic Admissions Process Funnel

Pharmacy Schools and Programs Should Focus on Diversity

It becomes necessary and appropriate for society to ensure the full range of people are represented in the pharmacy workforce to improve healthcare outcomes. Demographic studies suggest that patients will become more diverse and have many medical needs which will require more pharmacists sensitive to cultural differences. Plenty of evidence suggests that various healthcare providers contribute significantly to better health for all, especially neglected populations. Pharmacists who mirror their community members are better at addressing patients' needs

Techniques for Addressing Healthcare Inequalities by Increasing Diversity in Pharmacy School Admissions and helping them improve their health through effective communication (6).

As well as being important in clinical care, diversity allows all students to learn from different backgrounds and perspectives. When students study in environments with a range of views, they develop critical thinking skills, re-evaluate common ideas and learn to cooperate with people from other fields. Hot to Say: It has become clear through several studies that mixed groups in higher education are generally better at coming up with innovative solutions to challenging problems in healthcare than are homogeneous groups. Joining these two processes together supports diversity in schools and ensures high achievement.

Factors to Consider When Reviewing Patients Holistically

Holistic review within the law should take into account any regulations that determine who can access learning opportunities. Supreme Court decisions issued recently have explained that diversity in admissions should be assessed by reviewing each applicant as a whole and not just considering their background characteristics. Firms performing well in the sector have incorporated diversity across their main missions for healthcare equity, community involvement and serving the underprivileged. By following these strategies, it is possible to review skills in applicants that support the achievement of the institution's goals.

Reviewing all aspects of an education must involve clear guidelines, using them equally and checking the results as time goes on. Holistic pharmacy programs should clearly state what makes a person eligible and remain ready to accept a wide selection of talents. Continuously checking the effectiveness of selection criteria by reviewing students' outcomes ensures the reliability of using non-cognitive assessments. By improving continuously, holistic review helps the school identify those with the best opportunities for achieving results in current pharmacy practice.

Cooperative Strategies Used During the Various Stages of Pharmacy Education

Holistic admissions can be improved by joining forces all through the process of pharmacy education. To guide prospective applicants, pre-pharmacy advisors should fully understand how to review applicants holistically (7). By joining formal consortia, pharmacy programs make sure the same standards are used for application forms, admissions dates and feedback on various achievements. Because the institutions collaborate, they are able to effectively manage the number of applicants and ease the challenges applicants encounter while applying to several universities.

When admissions and curriculum design are aligned, it creates many opportunities for the unity of the educational process. If universities align the valued criteria in admissions with those developed during the curriculum and measured in outcomes, it helps students become more confident in their profession. Some programs in the pharmacy field are now ensuring that how candidates are admitted and what is taught in school are closely connected to the outcomes expected from those students once they have completed their training. Thus, holistic admissions forms the basis for a consistent learning process that develops the skills essential in pharmacy today.

3. Improving pharma education using innovative methods for admissions

Including Modern Techniques in Holistic Admissions

When pharmacy admissions are conducted online, there is a better chance to review all applications and make the review process more convenient and efficient. These systems make it possible to measure and assess a student's progress in non-cognitive areas and use those alongside normal evaluations. Video interview platforms give applicants from different regions a chance to compete for jobs, as it is often not possible for them to travel due to expense. With proper design and careful checks, AI tools are able to assist in making the primary decisions and reducing some types of unconscious bias.

Improving quality in admissions is made possible through the use of data analytics capabilities. It is possible to tie specific aspects of a student's application with their progress in school, how they function in medical practice and what happens to them after they graduate (8). They allow programs in pharmacy to adjust their standards for student selection based on evidence instead of only on traditions. Still, when introducing new technology, it is vital to ensure that algorithms are not causing problems such as accidentally seeking out and judging candidates based on old stereotypes. Most effective performances blend how technology works with human opinions, mainly for reviewing traits that are not easily measured on a scale.

Establishing programs to guide students into Pre-Pharmacy

Developing the pipeline for admissions plays a vital role in making admissions systems better. Such pharmacy

programs are setting up clear steps to recognize able students from underrepresented groups and communities very early in their education. Most of these pipeline projects merge schooling, support from mentors, hands-on experiences and socialization at work to help candidates gain admission to pharmacy school. Experience from existing programs has proven that students from minority groups are more likely to pursue and finish their education if they engage with the school earlier on.

Certainly, medicine pathway programs aimed at future pharmacists, situated in community colleges, play important roles for the education of many first-generation and economically diverse students. Such programs help community college students transfer without losing time or money. Students have also expressed interest in pharmacy as a career when they explore the field with hands-on activities and shadow real pharmacists. It is understood by these approaches that ensuring a diverse workforce among pharmacists requires efforts well before pharmacy school or college admissions.

Models that WONIA uses are competency-based

With competency-based education becoming common in pharmacy, there are new ways to reconsider the admissions process. These models assess applicants' abilities in areas that are important for practicing pharmacy. It admits that useful skills can be learned in different ways and can also come from participating in military service, volunteering or handling work responsibilities. Positioning emphasis on what an applicant can do instead of the traditional education they have allows non-traditional students to access more opportunities.

It is necessary to outline what the applicants must know before starting pharmacy education, aligned with the skills expected in practice and permit them to present their competencies in many ways through flexible assessment. A number of new approaches have program applicants use their academic performance, work history, volunteer service and autobiographies to demonstrate their abilities (9). They help highlight the abilities and readiness of each applicant for the practice of pharmacy and the intense studies ahead. Admissions using a competency-based model are aligned with education trends that focus on assessing what students learn instead of how much time they spend in courses.

Aspects of teamwork, communication and collaboration in pharmacy admissions

Nowadays, collaboration between different healthcare experts is common in pharmacy fields, so identifying individuals with strong interdisciplinary ability is very important during the admission process. Leading institutions are introducing examinations of interprofessional competencies such as talking as a group, understanding one's role, managing conflicts and decision-making. Experts often test candidates' cooperative skills by using simulation or by involving a panel of various experts in interviews. It appears that identifying these skills early on helps professionals integrate into groups working together in the medical field.

Focusing on teamwork also involves arranging how health professions programs coordinate their activities. Some centers of academic health collaboration arrange group applications and make use of common evaluation tools and sometimes arrange interviews for various health professions specialties. They result in better performance and demonstrate a solid commitment to teamwork among health care workers. They can highlight candidates who demonstrate skills in handling various tasks common in today's healthcare world.

Following admission, I continue to support Waggly and monitor his progress

If admissions are holistic, it also means schools support students by celebrating and guiding all the talents they saw during the admissions process. To accommodate students, certain schools are designing programs that help students based on their admission profile, as it is likely that what someone is strong at may not match their traditional areas of achievement. They usually provide support for learning, career mentoring, training for leadership and resources for wellbeing, so students can achieve academic success and good job prospects after leaving college.

Reviewing admissions regularly throughout the education program supports the development and accuracy of admissions criteria. Observing how various admission criteria relate to progression scores, work habits of students and their clinical outcomes enables programs to regularly improve their admissions approach. Using evidence-based methods blends admissions into a larger and more united educational plan. The most refined models follow up after a student graduates to check their work and leadership in society, as these factors measure the effectiveness of the system in addressing health needs.

4. Improving Pharmacy by Updating the Admissions Process

Recent Shifts in Practice: What Pharmacists Must Know Now

Moving pharmacy services from focusing on products to being patient-centered means admission process should improve too. In today's healthcare system, pharmacists use their expertise in medications to be part of a team, manage medicines for patients and focus on prevention, as well as meeting the needs of the community. Such additional duties call for better thinking, stronger communication skills, a desire to be open-minded about different cultures and adaptability attributes not assessed by older educational standards. Pharmacy admissions are now being reformed to highlight candidates' potential in these new pharmacy roles, as pharmacy schools add judgment-based, ethical, patient interaction and thinking quickly tests to their procedures.

There is an increased need for pharmacists who can manage patient care in a way that benefits results and lowers healthcare costs. New strategies for admission processes involve example-based tasks that help determine a student's knowledge of healthcare systems, management of quality and use of resources. Certain institutions look for candidates who can handle real-life situations where they analyze medicine-related matters and suggest solutions that are right for patients, doctors and finances. With such tests, it is possible to find those who are ready for jobs where pharmacists' role in medicine is more closely considered and rewarded.

Pharmacy Admissions Perspectives from around the Globe

Admissions standards followed abroad can teach U.S. institutions new and effective practices. Programs in some European countries check candidates' progress by assessing them at several stages rather than with only one major exam. Different parts of the United Kingdom verify how ethics and culture are considered in healthcare, while the Canadian system stresses decision-making skills in medical situations. Australian institutions for pharmacy offer various structures to assess past experience, so that anyone can join the profession with similar abilities.

Globally relevant health matters are considered more in admissions, as pharmacy education feels responsible for helping tackle access to medications on a global scale. Leading programs consider students' awareness of international healthcare disparities during evaluation, paying special attention to their desire to help everyone have access to medical treatment. Certain institutions understand the added value of hiring global pharmacists and have made it easier for them to obtain credentials here in the U.S. The application of these principles benefits the profession and ensures students are ready to work in hospitals where people from different cultures are treated.

Admissions can Be Strategic for Transforming Your Career

Such programs consider admissions as key efforts for the future of pharmacy, rather than only filling available places for a class. They ensure that registration for new students is based on what is needed in the market which includes working in primary care for undervalued regions, becoming experts in growing areas of practice and leading healthcare advancements. Predictive modeling helps some admissions programs identify individuals planning to work in places where doctors are in short supply and these programs can prefer them during selection.

When designing their admission policies, regulatory authorities pay special attention to the entrepreneurial side of pharmacy. Because pharmacy therapy is not limited to regular dispensing anymore, the activity requires Pharmacists to design new working models, introduce new services and highlight how their services add value to the industry. Nowadays, some programs include a check for entrepreneurial skills that examines creativity, tendency to think about risks and imagination to develop new ideas in pharmacy practice. They acknowledge that professionals in this field must be capable of handling their current duties and developing groundbreaking methods for treating with medicine.

The Ethics Behind How Students Are Chosen

Organizations should be sure to review their ethical rules for admissions due to increasing competition and risks related to educational debt and future employment. Such programs believe that admitting individuals is a big ethical task, where the needs of the university, applicants, the field and the community are all considered. Any decision on pharmacy education should stem from accurate and complete information on selection, career outcomes and whether students finish the program, so transparency is important. In certain cases, organizations have established ethical guidelines that make it clear how to handle decisions such as choosing between students' academics and representing various workforce groups.

Ethical issues often arise when it comes to choosing how much weight should be given to both requirements for entry and what a healthcare worker might provide. If people from underrepresented groups have service work, but perform academically below those around them, how should their potential be weighted? Quantified social

responsibility plans in these progressive programs ensure that pharmacists are trained to address pressing concerns in communities that experience different types of healthcare issues. Experts agree that admissions reflect the particular set of values and goals of the college or university.

Making Use of Recent Advancements in the Admissions Process

Thanks to progress in cognitive science, educational psychology and organizational behavior, it is now possible to identify applicants who show signs of succeeding in their jobs. Working on psychological traits such as grit, growth mindset and emotional intelligence supplies approved ways to test relevant skills for working in pharmacy. They use proper tools to help find characteristics that formal school assessments miss.

Awareness of team productivity plays a role in identifying those who have the potential to work well together in healthcare. It has been shown by research that good healthcare teams consist of people with various styles of thinking, strengths in interacting with others and similar areas of expertise. Including cognitive diversity in classes, together with demographic diversities, is now a goal for some pharmacy programs to avoid limiting how much a student can learn. They depend on systems for reviewing students that focus on who they are as individuals and what they could contribute to the organizations they train in.

Regular Enhancement of Admissions

Introducing set quality improvement approaches in admissions process is a major improvement for making the selection process strict. Well-established academic institutions have firm policies to frequently look for reliability, validity and fairness in every part of the admission process. They carry out careful examinations of how the separate components of assessment affect students' achievements and then make well-informed adjustments to the scoring methods, interviewing guidelines and how people are chosen for the program. It is also crucial to test if selection tools work the same for each applicant subgroup among a variety of diverse populations.

It is necessary to communicate the results of the assessment to pre-pharmacy advisors, faculty members, students and prospective applicants in an understandable manner. Being open results in people trusting the process and offers suggestions for improvement. Highly sophisticated quality improvement systems include predictive analytics that spot the first signs of a student's achievement, any possible behavior issues for professionals or signs that someone is ready to lead, evolving the model for admitting applicants. Thanks to this approach, admissions remain flexible, follow new industry trends and reflect the latest roles pharmacy has in healthcare.

5.Conclusion and Future work

Currently, the standards for pharmacy education need to change because the health problems ahead will require different skills from traditional students. This white paper clearly shows that holistic admissions practices, rather than being simply a different process, introduce a new way of thinking about who our pharmacists will be. AACP's Special Committee on Admissions advances pharmacy education by recommending fair and scientific methods that account for all aspects of being an exceptional pharmacy professional.

Applying holistic review to pharmacy education depends greatly on the commitment of those responsible for leadership, admissions, teaching and accreditation. For any changes to work, careful use of resources, consistent training sessions and monitoring must occur. Since such transformations create challenges, their rewards for the medical profession, patients and all types of healthcare are significant. When schools use holistic admissions, they attract and train people with unique skills and knowledge to address problems facing health care and modern medication use.

We should understand that diversity among pharmacists matters most because it improves the level of quality in healthcare. Since provider diversity aids in serving communities with access issues, it is smart for admissions to select candidates from a wide range of backgrounds, without loosening the expectations. If pharmacy programs do not solely depend on traditional assessments and grades, they can note that a range of life experiences teaches someone skills like perseverance, open-mindedness and dedication to patient care.

There is a strong sense of collaboration in conducting this work. Individual pharmacy programs ensure their special features do not disappear, while they will still gain by using the same methods, evidence-based techniques and coordinating their evaluation of candidates. Under the new guidelines, applicants to various institutions can expect fair and transparent procedures because they help coordinate colleges without limiting independence. This also

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means that we create relationships with other health professionals, prehealth guidance and the people our doctors will serve.

Holistic admissions is important, but when we think about future reforms, it is only one aspect of a larger whole. Because they have been selected through these better methods, students should be given education, treatment settings and work chances that make use of their many talents. When there are similarities between admissions, curriculum, activities and workforce planning, students move smoothly toward achieving success in their careers.

The paper gives suggestions that shape practices in pharmacy and encourage its participation in fulfilling the healthcare needs of people. Choosing students by considering both their knowledge and their humanistic values allows programmes to form practitioners who are both expert and caring. They will play a role on the healthcare team, lead in shaping new medical practices and promote broad access to medicines for everyone.

While admissions reform is tough and lengthy, it is necessary for pharmacy to stay up to date as a medical practice. It is important to implement pharmacists right now, as medical systems expect them to be open to new ideas, able to collaborate and dedicated to equity in health. Deciding who to teach today affects the skills and strengths of future pharmacists and their support for society's health. This is what we are tasked with and a great moment to help educate practitioners who will influence and transform healthcare in future years.

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Conflicts of interest

The authors have no conflicts of interest to declare

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