This commentary examines the challenges pharmacy faculty members have faced while working to fulfill their school’s tripartite mission of teaching, research, and service during the coronavirus identified in 2019 (COVID-19) pandemic. It also outlines considerations that need to be made before moving forward regarding communication, collaboration, and culture. The pandemic has created opportunities for pharmacy educators to take instructional risks and attempt new didactic and experiential teaching methods and assessment strategies. Working remotely has not only altered pharmacy education, but also scholarship and service. Conducting a broad range of collaborations with accelerated timelines to address COVID-19 has in some instances forged new relationships both between and within universities and focused faculty members on grantsmanship and writing. Faculty governance and administrative leadership have been focused on solving challenges resulting from the COVID-19 pandemic in a collaborative, transparent approach guided by faculty bylaws. Programs have found ways to use these changes to their advantage while advancing the mission of the Academy, which can contribute to changing the culture of how we interact and care about each other with the hope that the positive changes made have an enduring and meaningful impact for years to come.

Keywords: COVID-19, faculty, tripartite mission, faculty development

In January 2020 the World Health Organization (WHO) declared COVID-19 a public health emergency of international concern.1 Subsequently, SARS-CoV-2 continued to spread, leading the WHO to declare a pandemic in March 2020.2 This resulted in significant actions in the United States and around the world to decrease the spread of the virus by reducing person-to-person contact, resulting in progressive interventions being made in a short period of time. First, gatherings of more than 250 were discouraged. This was followed shortly by more stringent recommendations, with states issuing shelter in place or “stay at home” orders for nonessential workers and students.3,4 These measures to curtail the spread of the virus resulted in the need for immediate changes to the structure and delivery of curricula across all sectors of education, including schools and colleges of pharmacy. Other measures taken to gain control over the spread of the disease included closing building access to students, faculty, and staff, as well as canceling live classroom instruction, and in some instances, experiential education. Most schools suspended clinical and laboratory research and shifted service priorities. The disruption caused by the pandemic required faculty members to quickly modify the way they conducted teaching, research, and service, and ultimately, to exert more effort to fulfill the tripartite mission. The path forward from the pandemic will rely on increasing meaningful communication and collaboration and creating a culture more grounded than ever in caring about and for people.

Teaching Mission

Challenges. Fulfilling the teaching mission has required faculty members to make both immediate and ongoing adjustments to the structure, delivery, and assessment of their instruction in order to help students successfully complete the Spring 2020 semester and progress in the program. These adjustments presented challenges for faculty members as they learned to deliver instruction using new or existing instructional or commercial technology such as course management tools including CollaborateUltra (Blackboard, Inc., Washington, DC) and Zoom (Zoom Video Communications, Inc., San Jose, CA). Faculty members also had to assess...
student learning in modified ways secondary to remote testing using programs such as Respondus Monitor (Desire2Learn, Inc., Ontario, Canada) and ExamSoft with Digital Monitoring (ExamSoft Worldwide Inc., Dallas, TX). Finally, faculty members had to learn to communicate with students in new or different ways (eg, more frequent emails and video conference town hall meetings). The difficulty of these challenges was magnified for faculty members who had outdated or malfunctioning technology, decreased or absent staff support, or poor internet connections, or who were caring for small children or other family members who were ill, or possibly dealing with their own or a students’ physical or mental health or financial problems (eg, COVID-19 infection, anxiety, poverty).

Self-care and compassion. Addressing these instructional challenges in order to fulfill the teaching mission was time consuming and mentally and physically exhausting. Faculty members who have successfully navigated these challenges first engaged in self-care so they would be more flexible with and extend more compassion toward students, colleagues, and themselves (eg, understanding late assignments; grief over loss of routine, structure, and face-to-face social connections; financial stress about possible or actual furloughs, terminations, or unemployment; and stress over decreasing student applications and enrollment). For faculty members to sustain these efforts long term, they must continue to engage in self-care and compassion for others as these challenges can lead to faculty anxiety and other issues (see the Facilitating Wellbeing in a Turbulent Time commentary in this issue of the Journal for self-care recommendations).

Communication and collaboration. Faculty members who have met the challenge of adjusting their instruction have been willing to try something new and have recognized the importance of communicating and collaborating with others to implement new instructional strategies. The current teaching environment requires faculty members to engage students in meaningful ways and not rely solely on traditional lecture delivery. Faculty members have explored how to use active-learning strategies to “make students’ thinking visible” in an online world, such as holding virtual recitations and test reviews, employing games, utilizing chat rooms and discussion boards, and holding virtual office hours. Experiential faculty members and preceptors have adjusted their introductory and advanced pharmacy practice experiences (IPPEs and APPEs) by offering telemedicine training, rotation bootcamps, and competency-based APPEs across practice settings. However, it takes time and effort to select, learn about, and implement new instructional strategies, which the current environment has not afforded. Therefore, it is important for faculty members to seek advice and explore opportunities for collaboration with both local peers and faculty members across the Academy and participate in self-directed education. Increasing collaboration and communication related to instruction contributes to making teaching methods and materials “community property.” When faculty members share ideas, successes, challenges, and failures in a public way that others can build on, they contribute to improving instruction, which is important because all faculty members are facing similar challenges as they work to fulfill the teaching mission. One specific example of faculty members successfully communicating and collaborating about teaching is the AACP Assessment SIG’s listserv where faculty members discussed ways to maintain academic integrity in the virtual testing environment. Assessment SIG members shared solutions such as using Respondus Monitor or ExamSoft with Digital Monitoring. These conversations offered insights and options to urgent obstacles that faculty members faced. While adapting instruction can be frustrating and admitting confusion can be embarrassing for faculty members, having a network of peers, educational specialists, and administrators to offer advice and guidance is a powerful resource that is often underutilized. Program administrators and educational specialists are most helpful when they intentionally evaluate faculty members’ faculty development needs. For example, they need to determine if faculty members prefer individual meetings to discuss what is and is not going well; formal development workshops given by local or national experts; or written best practices (eg, guides/instructional manuals). They also need to explore if faculty members prefer the training and development to be delivered through virtual workshops, videos, or face-to-face meetings.

Culture. The pandemic has created opportunities for the Academy to take instructional risks and try new didactic and experiential teaching techniques as well as new assessment strategies, all while receiving collaborative feedback from colleagues, peers, staff members, and students. Programs have found ways to use these changes to their advantage and make instruction and assessment even better, which can contribute to changing the culture of teaching and assessment in positive, enduring, and meaningful ways. Fulfilling the teaching mission during the pandemic has been stressful because of the need for changes to be made quickly. This can leave faculty members vulnerable to self-doubt and external criticism, especially if faculty members hold themselves and peers to perfectionist standards. A fear of failure and/or perfectionism interferes with creativity, flexibility, and adaptability, and can stifle teaching and assessment. If
instead there is a prevailing belief that all faculty members are doing their best given the circumstances, then a safe environment for experimentation and innovation will exist and faculty members will flourish. In cultures such as this, colleagues offer grace to one another rather than criticism or blame when things do not turn out as expected and they encourage learning and building on successes. This type of positive culture will foster innovation and support ongoing instructional improvement and curricular advancement long after the COVID-19 pandemic is over.

Research Mission

Challenges. Fulfilling the research mission during the pandemic has also been challenging for faculty members. As with teaching, faculty members have needed to make abrupt changes to their research. This change has in many instances created challenges as a result of competing priorities (eg, spending more time on teaching), paused or suspended clinical and laboratory research, executing emergency laboratory shutdown plans (eg, storing hazardous or chemical materials, developing animal care plans, scheduling essential personnel, and monitoring laboratory safety), and developing plans to reopen laboratories or restart data collection (if research has been suspended). An additional challenge may include interpreting policies from graduate programs about access to laboratory facilities by graduate students, professional students, and postdoctoral fellows (eg, if the graduate program(s) is housed within an external organization or university graduate school rather than a school of pharmacy) and scheduling shifts to cover experiments or running experiments if personnel have been restricted from the laboratory (eg, limited or no research assistance from graduate students, postdoctoral fellows, and/or residents).

Communication and collaboration. Addressing these research challenges is complicated because resources and options may be out of individual control and cannot be solved in isolation. Therefore, faculty members need to increase their communication and collaboration with their staff, departments, program, and university. Faculty members who have successfully increased communication have developed a work schedule with their research staff members that allows for social distancing. They have also communicated and collaborated with their essential personnel to implement emergency plans for the laboratory shutdown. When research was suspended, some faculty members shifted their efforts to grantsmanship, manuscript development, and/or peer review of research activities. The urgency to innovate as a result of the COVID-19 pandemic has increased faculty peer collaboration by bringing diverse teams together and creating new opportunities that may result in lasting collaborative teams. These collaborations may also help build interdisciplinary and transdisciplinary teams that can work on future research projects and programs. At the institutional level, faculty researchers have communicated and collaborated with their program and their university to prioritize their research projects, provide routine updates on the status of their research projects, update laboratory research operations plans and laboratory safety policies and procedures, and discuss plans for reopening laboratories. These conversations are useful for current and post-COVID-19 endeavors and can help universities prepare for future emergencies and future scenarios where research laboratories may reopen only to be closed again at a later point.

Culture of caring. Moving forward, it is important to stay focused on faculty members’ efforts to fulfill the research mission and not impose unrealistic expectations. A culture of caring can be essential for restarting research. At the national level, funding agencies need to be supportive and understand the loss of productive time for grantees. The National Institutes of Health issued a policy statement (8.1.1.3) allowing extension of final budget periods for previously approved projects without additional NIH funds. This broadened the approvals for “no-cost extensions” for NIH-funded grant work and allowed investigators the necessary time to complete projects and final reports. The National Science Foundation also released a memorandum to clarify their commitment to providing the greatest flexibility possible regarding specific administrative, financial management, and audit requirements without compromising those requirements. Therefore, major funding agencies have ensured investigators that they are supportive and understand delays that may occur because of the pandemic. In addition, many institutions are implementing processes for extension of faculty probationary periods. The necessity for review of promotion and “tenure time clocks” and extension of deadlines is readily apparent, and establishing a culture of flexibility can support faculty members by giving them more time to work through the complicated issues the pandemic has presented.

Service Mission

Challenges. Working remotely has also altered how faculty members fulfill their service mission, which is perhaps the most complex area of the tripartite mission because it involves service to the program or university, professional organizations, and/or patient care and advocacy. These multiple commitments may leave faculty members struggling with how to prioritize service
obligations in the midst of a pandemic. The service mission of the college or school of pharmacy has likely been accelerated in some areas and slowed in others as a result of the pandemic. While faculty service to their school has not stopped, faculty members and administrators are faced with the challenge of running programs under new circumstances. These new circumstances have required faculty members to spend time making temporary curricular revisions (eg, alteration in IPPE and APPE delivery/requirements), evaluating academic progression issues (eg, grading scale alterations), and facilitating standardized program assessment (eg, ensuring pre-APPE students complete the Pharmacy Curriculum Outcomes Assessment using a new online testing program), and adjusting admissions and graduation processes (eg, prerequisites-online delivery and lack of testing sites for applicants to take the Pharmacy Curriculum Aptitude Test and the North American Pharmacy Licensure Examination). National organization and committee work requirements have also continued. Because of travel restrictions and quarantine requirements, coupled with the cancelation of conferences, faculty members have been forced to conduct committee work virtually and many have had to spend time restructuring workshops and presentations for virtual conferences.

Some clinical faculty members have been restricted from entering hospitals or clinics, which has presented a significant barrier to face-to-face patient encounters. These restrictions have impacted how faculty members care for their patients, access electronic medical records, and contribute to interprofessional teams. Regardless of which service initiative (college/school, national, patient care) faculty members are trying to fulfill, one common challenge for them has been learning to work remotely, including having difficulty ending the work day, having problems concentrating while working at home with family members or pets (eg, noise, distractions, lack of privacy), and experiencing meeting fatigue (eg, frequent Zoom calls).

*Communication, collaboration, and care.* Increased communication and collaboration among faculty members and administrators are important factors in successfully meeting service-related challenges. Department chairs and other administrators can communicate with faculty members to help them create meeting-free days or to ensure they are ending the work day at a reasonable time. At the college or school level, urgent programmatic issues that must be addressed (eg, curriculum, assessment, admissions, or academic standings committees) should continue to be evaluated at the committee-level and presented to the entire faculty as outlined in governance documents. Programs that have successfully addressed these urgent problems have done so by holding emergency faculty meetings and town halls where faculty members, staff members, and administrators can debate perspectives before voting on solutions. Consulting governance documents can assure there is a functional balance between the administration and faculty. Leadership is critical for the institutions to unite, solve problems, and turn challenges into opportunities. Leadership manifests itself in bringing people together, caring about each other, and scaling challenges in a transparent, respectful manner, while staying true to the vision and mission of the school.

The benefit of increased communication has also occurred with delivering patient care by using telehealth/telemedicine technology to expand patient care, such as using provider-to-provider and provider-to-patient video conferencing with desktop-sharing activities that are compliant with the Health Insurance Portability and Accountability Act. Practice-based faculty members are adapting how they access electronic medical records and discovering new ways to communicate on interprofessional teams. Born out of necessity, faculty members have embraced the use of these tools in order to communicate with their patients and collaborate with their team to deliver patient care.

An additional facet of service is advocacy. The pandemic has created opportunities for the pharmacy profession to capitalize on the community accessibility of pharmacists in expanded roles to provide services for patients (eg, point-of-care testing/screening). It has also facilitated the use of new and creative ways to provide medications to patients in their communities and helped faculty members connect their patients to the health care system through coordination of care. Moving forward, colleges and schools need to work collaboratively with each other and their state associations and boards of pharmacy to position pharmacists to advance cost-effective quality health care through advanced practice models, with particular emphasis on providing community-based care.

**CONCLUSION**

Most faculty members thrive on daily routines and dependable yearly schedules for fulfilling the tripartite mission of teaching, scholarship, and service. Prior to the COVID-19 pandemic, faculty members normally implemented changes using meticulous processes with extended rollout plans. For many, when pharmacy schools made the decision to stop face-to-face gatherings and remove learners from practice settings, day-to-day activities ceased to be normal and routine. In response, faculty members have been forced to transform how they fulfill their professional responsibilities and the
program’s mission. Faculty and staff members are doing their best to build a new normal for themselves and their students while dealing with the loss of their day-to-day routines at work, school, home, and within the community. The pandemic has presented an opportunity for faculty members to reflect on how they can thrive, even while balancing rapid, significant changes and coping with the collective feelings of loss. The way pharmacy students, staff members, and faculty members have responded has been impressive as they have maintained accessibility to each other while maximizing the safety of the work environment, innovated day-to-day processes, and delivered on the tripartite mission.

Finding the right path forward may well be found in each of us asking, “How can I ‘show up’ to care about and support the people around me, take in and share information, and collectively solve problems?” In order to move forward, we need to be patient with our colleagues, students, patients, and ourselves. We need to avoid making judgment on how our colleagues choose to “show up.” Everyone deals with loss differently; the worst loss is always your loss. Avoid comparisons, make space for our differences, stay focused on our similarities and our connectedness, and we will find the silver lining and a bright future.

REFERENCES