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This chapter explores the student outcomes of a progressive case on the development of professional identity and professionalism within first-year student pharmacists.

Evaluating the Impact of a Longitudinal Patient Case on the Development of Professionalism and Professional Identity

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Professional identity formation (PIF) is, in basic terms, the evolution from learner to practitioner and is influenced through all aspects of the learning process. For the purposes of this manuscript, the authors have defined PIF as the developmental and iterative process learners navigate to internalize their image of a practitioner. Professional identity is formed as students learn the roles and expectations within their chosen profession, interact with practitioners, and actively reflect on the characteristics, ethics, and customs of these practitioners. Each of these activities provides opportunities to solidify a student's self-image and self-efficacy (Mylrea, Gupta, and Glass 2019; Noble, McKauge, and Clavarino 2019).

To foster PIF, educators must help students develop their professional persona while recognizing that this development is a continuum (Noble et al. 2014a). Professional identity will evolve over time as students are influenced by internal (e.g., sociodemographic factors and beliefs) and external (e.g., environment, mentors, social circle) factors (Cruess et al. 2014). Cruess et al. (2014, 1447) state, "it is important to realize that the development of a professional identity takes place within the context of individual identity formation, a process that begins at

birth and results in a complex mix of identities (gender, nationality, race, religion, class, etc.) that represents how each individual is perceived and perceives herself or himself".

Preparing students for future practice is a complex and multifaceted process. Educators are expected to provide learners with the knowledge, skills, and abilities associated with practice, and also prepare them to serve as representatives of the profession, accepting and promoting the professional attributes expected by current practitioners (Dall' Alba 2009; Mylrea, Gupta, and Glass 2015, Noble, McKauge, and Clavarino 2019). Although related but separate constructs, PIF and professionalism are often discussed interchangeably (Mylrea, Gupta, and Glass 2015; Bridges 2018). This inconsistency has created complexity when defining PIF and assessing student identity development (Noble, McKauge, and Clavarino 2019). In general, PIF is difficult to assess. Educators often use surrogate markers like professionalism to help identify this growth in professional identity. For the purposes of the manuscript, the authors have defined professionalism as the universally expected traits and behaviors that align with the responsibilities, attitudes, and norms of being a professional in a given field. Still, health professions educators have failed to cohesively identify what attributes encompass professionalism. Given the complexity in defining professionalism as a competency, Al-Eraky (2015, 1018) asserts that teaching professionalism is "essential, yet challenging." Because development is non-linear, assessing the various aspects at one point in time offers only limited information. Further, there is not one right method of teaching or assessing professionalism in health professions' education. This is true of PIF as well. Therefore, programs routinely utilize a variety of methods; examples include surveys (Chisolm et al. 2006; Kalet et al. 2017), reflections (Yakov, Riskin, and Flugelman 2020), and simulation (Wyatt, Kleinheksel, and Tew 2020).

Taken all together, these varied approaches lead to inconsistent methods in teaching and assessing development in this area (Cruess, Cruess, and Steinert 2016).

Despite these challenges, this does not prohibit health professions organizations from routinely identifying key areas affiliated with professionalism. To foster this development in pharmacy education, the American Association of Colleges of Pharmacy (AACP) Professionalism Task Force identified 11 professionalism traits which include: 1) knowledge and skills, 2) commitment to self-improvement and life-long learning, 3) service-minded orientation, 4) professional pride and dedication towards advancing the value of the pharmacy profession within society, 5) covenantal relationship between the practitioner and those served, 6) alertness, creativity, initiative, and innovation, 7) conscientiousness, integrity, and trustworthiness, 8) flexibility and punctuality, 9) performance accountability, 10) ethically sound decision making and moral behavior, and 11) leadership (Popovich et al. 2011). Though accrediting bodies attempt to provide some consistency within their definitions, the lack of uniformity amongst educators creates challenges for those institutions that are attempting to foster and assess PIF and professionalism development with their learners (Mylrea, Gupta, and Glass 2015; Holden et al. 2015; Cruess, Cruess, and Steinert 2016).

Introducing PIF to Students Early in the Curriculum

The literature supports the vital roles that PIF and exposure to models of professionalism have on the development of future practitioners (Cruess et al. 2014; Wald 2015; Mylrea, Gupta, and Glass 2019; Noble, McKauge, and Clavarino 2019). As such, the authors recognized that learners require early, intentional, and repeated exposure to experiences that foster continuous professional growth (Noble et al, 2014a). These experiences should be supported through

feedback, mentoring, and other forms of guidance from faculty, staff, and peers (Wald 2015; Cruess, Cruess, and Steinert 2019; Matthews, Bialocerkowski, and Molineux 2019). To achieve this aim, faculty at a school of pharmacy developed a semester-long, self-directed activity to introduce the US healthcare system to students in the first semester of the first year of the curriculum, many of whom may have had minimal exposure or experience navigating through the system either as a patient or member of the healthcare team. This introduction enabled students to visualize processes and identify patient care strategies for application in future practice. Completing the activity also required students to investigate internal assumptions, breakdown stereotypes, and strategize ways in which a pharmacist could assist a marginalized patient persona within the healthcare system.

Within this Longitudinal Patient Case (LPC) assignment, students were tasked with crafting a patient story that outlines how their 'patient' would utilize the healthcare system. As part of this assignment, students were instructed to consider the socioeconomic barriers that this patient may experience while navigating the system. Images of their patients and a brief biography were provided that allowed the student to understand the environment and potential challenges their patient may experience within a healthcare setting. Students were asked to take on the role of a healthcare provider and to reflect on how they would interact with other members of the healthcare team and how they would advocate for their patient as they completed this journey. The development of this multi-step assignment exposed students to the challenges their patients could experience while requiring students to critically evaluate how working with the specific needs of patients changed how they viewed themselves as future providers. The final product of the assignment was a narrated PowerPoint presentation that included responses to 12 prompts, one per slide, related to telling the patient's story. Also included in the assignment were

opportunities for peer review and self-assessment. Assignment components, detailed in Table 1, were assessed using grading rubrics. This approach provided the feedback, mentoring, and other forms of guidance from faculty, staff, and peers that are critical to support professional growth. Considering the importance of professional identity development, and the challenges of teaching and assessing it, the goal of this manuscript was to explore the impact of this longitudinal assignment on PIF in student pharmacists.

Table 1. Summary of Relevant Assignments Related to Longitudinal Patient Case

Assignment/ Assessment	Weight of Assignment Within Course	Brief Description of Assignment/Assessment	Timeline for Submission
Final Longitudinal Patient Case (LPC) PowerPoint	14%	Students submitted the final narrated PowerPoint of their developed patient persona	Submitted at end of semester-long course
Peer Review	3%	Students reviewed a peer's PowerPoint, completing a grading rubric and providing feedback, before the final LPC PowerPoint was due	Submitted three-quarters through the semester-long course
Self-Reflection	2.5%	Students reflected on their peer's feedback and	Submitted at end of semester-long course,

		explored the overall experience of helping their patient navigate the US healthcare system	after the submission of the final LPC PowerPoint

Description of Peer Review/Self-Assessment Assignments. As components of the LPC assignment, each student completed a peer review and self-assessment reflection assignment. These two assignments were designed to foster content retention and to promote critical thinking and were graded independently from the LPC.

Peer Review. For this assignment, each student was tasked with reviewing one peer's LPC. Following the LPC submission to the learning management system, students were randomly assigned to peer review a classmate's case. For the peer review, students used a provided rubric that outlined criteria and provided an opportunity for written feedback for each assessment area. The peer assignments were not anonymous. This feedback was then shared with their classmate. This assignment had two purposes: 1) to provide the learner with a secondary source of feedback other than faculty, and 2) to evaluate the student's ability to provide quality peer feedback. This peer review activity was also implemented to encourage the internalization of feedback, to promote learning, and to encourage self-reflection.

Self-Reflection. The self-assessment was the last component of the assignment and was due at the end of the semester. Upon receiving peer feedback, students were prompted to reflect on the feedback by discussing the development of their LPC, describing their reaction to their peer's feedback, and exploring how this experience and feedback would shape completion of future projects. Students were provided the grading rubric for the self-assessment assignment

prior to completing the reflection. As students had not yet received a formal grade on their Longitudinal Patient Case PowerPoint, the self-assessment provided an opportunity for students to consider what they learned throughout the process rather than the grade earned.

Data Source and Analysis. Data for this study was derived from Fall 2018. All first-year student pharmacists (n=153) participated in the LPC assignment, with 152 completing the self-assessment reflection. All reflections were de-identified and included in data analysis. Each reflection was a minimum of 500 words.

Thematic analysis of self-reflections occurred through a multi-phase approach. Each researcher was randomly assigned reflections to independently analyze before synthesizing into one code book as a team. Investigators independently coded 38 reflections using the *in vivo* coding method (Saldana 2016). After independent codes were created, the research team collapsed and synthesized their findings into one codebook (Table 2). The final codebook contained granular codes that were inductively combined into subthemes and themes. After the synthesized codebook was generated, the team defined each theme based heavily on the codes used to create it. The last step in generating the investigators' codebook was the inclusion of supporting quotations to serve as examples of each theme.

As a secondary mechanism of analysis, the researchers aligned the final codebook with the AACP defined traits of professionalism in pharmacy education (Popovich et al. 2011) as described in the introduction. As determined aggregately by the researchers, each subtheme was aligned with all the traits which applied, and all subthemes aligned with at least one trait. The results are captured in Table 2. This alignment was completed as a mechanism to anchor our codes with the behavioral expectations of the profession, and to serve as an additional framework for analysis. Specifically, subthemes under Professional Identity Development relate to Traits 1,

2, 3, 4, 5, 7, 9,10, and 11. Subthemes under Personal Growth map onto Traits 2, 3, 5, 6, 7, 8, 9, 10.

All four investigators were involved in assignment creation and/or course coordination and as such, reflexivity was acknowledged throughout the coding process. The study protocol and use of data was approved by the Auburn University Institutional Review Board.

Table 2. Themes and Supporting Quotations

Theme	Sub-Theme and Professionalism Alignment	Definition	Supporting Quotations
Professional Identity Development	Empathy [AACP Prof #5]	Ability to relate to the simulated patient as a real person to include recognizing the barriers individuals encounter in the real-world.	"By forcing myself to dive deeper into what life would be like for a patient with the given background, I was able to identify barriers that I would not have originally thought of." "In order to achieve the best care for each individual patient as a person, and what fits their lives the best, even the smallest details need to be made with the utmost consideration and passion possible, and this assignment was able to remind me of that." "I think I connected with my persona as I developed his story throughout the presentation." "I chose a patient that was diagnosed with a condition that I also have – depression. I felt that since I was familiar with

			the ins and outs of the disease that I could better reach into my patient's mind."
	Real-world Application [AACP Prof #1, 2, 4, 9?]	Recognition that what was learned in the classroom or simulated experience is present in individuals utilizing the healthcare system. To include knowledge, communication strategies, and clinical skills they will utilize in future practice.	"Although I do have experience with patients of this 'type', I realize now that it is important as a student pharmacist to broaden my horizons beyond what is familiar and comfortable and force myself to explore care for patients I may have never encountered before. This is an important skill to develop as a professional so that my future patient's care will be approached with some level of past experience." "The very core of this assignment was based upon seeing things from a dual point of view. The necessity of this in practice is essential, for a provider need not only see things from his/her own point of view but also from the patient's perspective." "…helped me realize that people's lives can be this complicated…"

	Role of Pharmacist [AACP Prof #1, 3, 5, 9, 10, 11]	Student acceptance of the roles and responsibilities of the profession to include the potential to impact future patient and practice outcomes.	"Although I think I may have articulated something well for a patient, another provider may not think I did a great job. Because of this activity, I now see the benefit of working in healthcare teams." "This project has given me a detailed look into the job of a pharmacist, which has provided me with the opportunity to develop an idea of what sort of pharmacist I want to be." "We were put right in the middle of the day-to-day life of a pharmacist." "It is evident that pharmacists are involved in so much more than just dispensing medications - I completely understand and believe that after completing this case."
	Bridging the Gap/Accessibility [AACP Prof #3, 4, 5, 7, 10, 11]	Recognition that as a future pharmacist they may serve as an intermediary between the patient and the healthcare system to ensure that patients receive optimal care.	"We as pharmacist are one of the most accessible healthcare providers in the medical arena. Pharmacist are able to contact insurance companies directly, create specific medication therapies for patients, are essentially the bridge between a patient's primary physician and the patient…solidifies the importance of pharmacist

			collaboration with other healthcare providers to achieve the highest and most effective level of healthcare possible." "This case assisted in my learning of how important it is for a pharmacist to be a part of the healthcare team."
	Advocacy [AACP Prof #3, 4, 5, 10, 11]	Passion regarding the vital role pharmacists play in representing, serving, and promoting the needs of the individuals for whom they care.	"For the future, I plan to relate all advocacy methods to how as a pharmacist, my job is to ensure proper use of medication and the best outcomes for my patients." "The main takeaway I gathered from this project was how I need to be more mindful of all situations that I could run into while working in a community pharmacy. I have worked in a retail setting before, but had not seen the pharmacists be advocates for their patients or even empathetic with them. I want to be a pharmacist that goes above and beyond for my patients, because their well-being is truly important to me. For future projects, I will most likely follow the same format from assessing the patient

			and their barriers to how myself as the pharmacist can improve their well-being."
Personal Growth	Stereotypes/Assumptions [AACP Prof #2, 3, 5, 7, 10]	Realization of the importance to avoid stigmatizing persons utilizing the healthcare system. To include not making assumptions regarding access, culture, education, literacy, and socioeconomic status.	"This was important to me because it allowed me to realize how much a stereotype plays a role in today's society. Even though I was able to edit and mold my patient in to the person I wanted to be, patients in the real world can't just alter their background to avoid these stereotypes."
	Feedback [AACP Prof #2, 3, 7?, 9]	Recognition of the impact feedback had on current and future projects and the challenges associated with giving and receiving feedback.	"Overall, my peer review was extremely helpful. The comments and clear feedback really helped me learn from my mistakes on my progressive case." "… learned the importance of peer feedback because some of the areas of improvement were details that I did not even consider when developing the case." "In all honesty, I did not understand the reason for all of the peer reviews in the beginning of the semester since the other person never got our feedback. It was not until

| | | | recently that I realized that all of the peer reviews were for our benefit because they made us think critically and analyze things to a higher degree."

"While I value the opinions and criticism from my peer, I did not find that a peer assessment was beneficial for this assignment."

"It was evident that the student took her time when giving me feedback since her comments were very clear and concise on what things I did well in the assignment and my areas of improvement. Also, being able to give feedback to another student was helpful because it allowed me to have to opportunity to look and listen to another student's assignment which allowed me to see techniques that I should or should not incorporate into my further presentations."

"The feedback left by the reader reinforces the fact that I need to pay a little more attention to detail and not take for granted the readers knowledge of a situations…Receiving |
| --- | --- | --- | --- |

			quality feedback is very important to the learning process and from now own I will make it a point to improve the quality of feedback I leave for others."
	Excitement/Enthusiasm/ Creativity [AACP Prof #6, 8]	Acceptance of the flexibility allowed and enjoyment that can be found when creating their own patient story or narrative. To include the ability to be in control and determine which path would be taken in story creation.	"I struggled with how much free reign I had over this assignment…I found myself hitting a brick wall creatively." "It proved more difficult to come up with a story on your own than expected, but it was fun." "I had to push myself to think outside of the box to create something different to make the story flow better." "I feel that the progressive case is challenging because we are given a lot of freedom to write out our patient's story." "Overall, the development of the PowerPoint was challenging, fun, and educational."
	Self-Discovery [AACP Prof #2, 6]	Students' awareness of how they evolve over time to become a capable and confident professional. To	"This project was beneficial to my maturity as a student pharmacist since I had to solve problems, apply a law, understand my role better, and advocate for my patient"

		include the recognition of how experiences shape their own identity and influence their relationships with future patients.	"I also feel that the project helped me better understand what exactly the role of a pharmacist is in a situation that is a little different from most of the examples that we receive in class" "During this assignment, I never explicitly stated that I was the pharmacist and therefore struggled with professional identity." "…I realize now that it is important as a student pharmacist to broaden my horizons beyond what is familiar and comfortable and force myself to explore care for patients I may have never encountered before." "This project has given me a detailed look into the job of a pharmacist, which has provided me with the opportunity to develop an idea of what sort of pharmacist I want to be." "Throughout the time spent preparing the presentation I discovered many things about myself, others, and the profession itself."

Student Learning Outcomes

Two overarching themes that emerged from the data were professional identity development and personal growth. Table 2 lists overarching themes, subthemes, descriptors, and illustrative quotes. Professional identity subthemes included empathy, real-world application, role of the pharmacist, bridging the gap/accessibility, and advocacy. Personal growth subthemes included stereotypes/assumptions, feedback, excitement/enthusiasm/creativity, and self-discovery.

For the empathy subtheme, students reported an ability to relate to the simulated patient as a real person and recognition of the barriers individuals encounter in the real-world. One student stated, "By forcing myself to dive deeper into what life would be like for a patient with the given background, I was able to identify barriers that I would not have originally thought of." For real-world application, students recognized that what was learned in the classroom or simulated experience was present in individuals utilizing the healthcare system, with students pointing to knowledge, communication strategies, and clinical skills they will utilize in future practice. One student noted that the assignment, "…helped me realize that people's lives can be this complicated…" Students embraced the role of the pharmacist, accepting the roles and responsibilities of the profession, including the potential to impact future patient and practice outcomes: "It is evident that pharmacists are involved in so much more than just dispensing medications - I completely understand and believe that after completing this case." Students expressed recognition that as a future pharmacist they may serve as an intermediary between the patient and the healthcare system to ensure that patients receive optimal care [bridging the gap/accessibility]. One student stated, "We as pharmacist [sic] are one of the most accessible healthcare providers in the medical arena. Pharmacist [sic] are able to contact insurance companies directly, create specific medication therapies for patients, are essentially the

bridge between a patient's primary physician and the patient…solidifies the importance of pharmacist collaboration with other healthcare providers to achieve the highest and most effective level of healthcare possible."

Within the advocacy subtheme, students expressed passion regarding the vital role pharmacists play in representing, serving, and promoting the needs of the individuals for whom they care. As illustrated in the statement, "It was interesting how I found myself wanting to advocate more for patients different from me after this project," students expressed a greater intention to advocate on behalf of their future patients.

For stereotypes/assumptions, a subtheme under personal growth, students recognized the importance of avoiding stereotypes or stigmatizing persons utilizing the healthcare system, including not making assumptions regarding access, culture, education, literacy, and socioeconomic status. "This was important to me because it allowed me to realize how much a stereotype plays a role in today's society. Even though I was able to edit and mold my patient into the person I wanted to be, patients in the real world can't just alter their background to avoid these stereotypes."

The next subtheme was the recognition of the impact feedback had on current and future projects, and the challenges associated with giving and receiving feedback. Some students reported that feedback was useful: "Overall, my peer review was extremely helpful. The comments and clear feedback really helped me learn from my mistakes on my progressive case." Others held a more negative view of peer feedback, stating, "While I value the opinions and criticism from my peer, I did not find that a peer assessment was beneficial for this assignment."

Some students expressed excitement, enthusiasm, and creativity, demonstrating an acceptance of the flexibility allowed in the assignment and enjoyment that can be found when

creating their own patient story or narrative. This included the ability to be in control and determine which path would be taken in story creation. One student stated, "I had to push myself to think outside of the box to create something different to make the story flow better." Other students had difficulty with the perceived lack of direction, intended to spark creativity in the patient stories. "I struggled with how much free reign I had over this assignment…I found myself hitting a brick wall creatively."

The final subtheme under personal growth was self-discovery which was defined as students' awareness of how they evolve over time to become a capable and confident professional. This included the recognition of how experiences shape their own identity and influence their relationships with future patients. One student stated, "This project was beneficial to my maturity as a student pharmacist since I had to solve problems, apply a law, understand my role better, and advocate for my patient."

Strengths/Limitations. As educators in the health professions, we recognize that the findings support the attitudes and behaviors one would expect in a future healthcare provider. However, while we recognize these expectations, we did not go into the coding process looking for the specific themes/subthemes that emerged. Our findings showed that students were fostering their professional identity with limited prompting from the assignment creators.

Discussion

As the first manuscript within this journal describes, PIF is an ongoing process that evolves over time. Much like the model shows, the evolution of PIF development is shaped by experiences that task learners with thinking, feeling, and acting like a practitioner. The integration of the LPC places first-year student pharmacists on a journey through the healthcare system. This learning

experience provides students with the opportunity to start this holistic process by immersing them into the role of a practitioner, establishing patient relationships, fostering empathy and person-centered communication, and introducing them to the challenges providers encounter when caring for patients from various socioeconomic and cultural backgrounds. This experience also establishes the challenges of the healthcare system and allows learners to navigate this system from both patient and provider perspectives.

As we noted above, professionalism and PIF are interwoven and are often assessed simultaneously. As such, our analysis of how the LPC experience also shaped a student's own professionalism seemed ideal. This secondary lens allowed us to examine our findings to determine the correlation between PIF and professionalism.

Thinking. Our findings showed that as a result, students began to reflect and shape their own PIF development. While prompted to provide feedback about their overall experience developing the case and feedback they received from their peers, students were expanding on the overall meaning making that was occurring as a result of the assignment; primarily, students focused on how this experience shaped how they plan to practice in the future. Some students were also identifying within themselves potential biases or stereotypes they associated with patients they might encounter in practice and misconceptions regarding the pharmacist's role within the U.S. healthcare system. This early recognition of challenges providers encounter in practice demonstrated that these learners were already beginning to think like future practitioners.

Acting. A student's ability to identify the relationship between real-world application and their own learning experiences is essential to enable students with the knowledge, skills, and abilities needed for future practice. The 'realness' of their educational experiences allows

students to see how simulated learning experiences provide them with a safe environment in which to hone their professional identity without fear of negative patient outcomes. However, the use of simulated scenarios must be dynamic, emulating what students will see in practice to be beneficial. Artificial scenarios that are not representative of practice can create dissonance that can negatively impact student growth, specifically their professional identity and overall professionalism (Mylrea, Gupta, and Glass 2019; Noble, McKauge, and Clavarino 2019).

The inclusion of pharmacist roles within a curriculum is also essential to ensure that students can vocalize the role of the pharmacist in a variety of practice settings. Matthews and colleagues (2019, 1) discuss how "a lack of professional identity clarity has been found to have a significant impact on a profession's perceived value and on a practitioner's confidence in advocating for their professional values". The integration of the LPC provided students with an opportunity to identify their role as a future pharmacist and to reflect on how they might fit into these roles. A student noted, "This project has given me a detailed look into the job of a pharmacist, which has provided me with the opportunity to develop an idea of what sort of pharmacist I want to be."

Lastly, students were introduced to their roles as advocates both for the profession and for their patients. Notably, some students commented that while they had been working within the profession for a number of years, they had not seen pharmacists serve in this capacity: "I have worked in a retail setting before but have not seen the pharmacists be advocates for their patients or even empathetic with them. I want to be a pharmacist that goes above and beyond for my patients, because their well-being is truly important to me." The inclusion of this focus area laid the foundation for entry into the profession and spotlights the active role each practitioner plays in the professions' evolution and advancement.

Feeling. To ensure positive PIF, the inclusion of learning experiences that allow students to navigate patient encounters in a safe environment is essential to provide them with the resources needed prior to providing care once thrust into real-world experiences (Wilson et al. 2013). However, learning the knowledge and skills of a healthcare professional is not enough; students must also gain the attitudes of a practitioner which requires developing empathy for the patient. Empathy development in a simulated experience can be challenging as students may struggle with accepting that the simulated experience mimics what they may experience in practice (Noble et al. 2014b; Mylrea, Gupta, and Glass 2019). The inclusion of the patient story within the LPC successfully overcame that hurdle as students were able to establish long-term bonds with their patient with some learners referring to their 'patient' in future semesters. The relationship between students and their patients also continued to build over the semester as students learned more about the healthcare system. Kolar and Janke (2019, 1820) state that, "Pharmacists have an impact on a patient's care when they develop a relationship with the patient and connect emotionally with them." The progressive case assignment allowed first-year student pharmacists to begin practicing relationship-building and emotional connections with their patients early in the curriculum. With each new learning experience, students were tasked with looking back to their patient and strategizing how to help their patient navigate the next steps of their healthcare journey. One student spoke to how the patient became real: "I began to think of him as an actual patient, who couldn't afford his asthma medications, what as a pharmacist could I do to make it more accessible for the Martinez family to get these medications. He became the face for many actual children who have these same trials and tribulations."

Relationship between PIF and Professionalism. The link between PIF and professionalism became clearer as we explored how the traits of professionalism fit within the qualitative findings from the students' self-reflections. Students were not only focusing on their own internal personal development but on how their actions would impact their roles as future practitioners and their future patients. A student's ability to demonstrate both internal and external growth further solidifies our theory that professionalism and PIF are interconnected, and focused continuous development in these areas will enable students to become well-rounded practitioners.

Lessons Learned

The inclusion of assignments designed to assist students with PIF early in the curriculum may be of great benefit to the students. The learning outcome themes that emerged related to this assignment show that students are beginning to relate to patients and their future profession. Students are developing empathy for their patients, developing their understandings of pharmacy practice and the role of the pharmacist, and advocating for the patient. Often, students come into the School of Pharmacy with assumptions about the role of the pharmacist in patient care based on their previous real-world patient encounters. As educators, our goal is to help students grow into their understanding of the current and future roles of the pharmacist across various practice settings. Further exploration and continued research in PIF are needed as educators continue to consider the best mechanisms to teach and assess professional identity in students.

Experiential rotations in both the early curriculum and after the didactic curriculum are designed to help this by exposing students to real-life patient care experiences and pharmacists in a variety of practice settings; however, depending on their rotation assignments and clinical skills

assessments, students may have limited opportunities to interact with patients or simulated

patients to start building empathy or an understanding of how the pharmacist can advocate for

patients with issues such as accessibility until later experiential rotations (Kleinsmith et al.

2015). In our experience, the themes and reflections identified from this didactic experience

mirror those in the experiential curriculum. By placing this activity early in the curriculum,

students start that transformative journey early as they begin to understand the roles and

expectations of the pharmacist.

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