Original Research **EDUCATION** 

# Exploring the Impact of Reflecting upon Pharmacy Experts' Written Career Guidance on **Student Professional Identity Formation**

Laurie L. Briceland, PharmD, FASHP, FCCP1; Tatiana Martinez, PharmD2 <sup>1</sup>Albany College of Pharmacy and Health Sciences, Albany, NY; <sup>2</sup>Asante Three Rivers Medical Center, Grants Pass, OR\*

\*At the time of this study, Tatiana Martinez was a student pharmacist at Albany College of Pharmacy and Health Sciences, Albany, NY

#### **Abstract**

Study Objective: To explore the impact of reading and critically reflecting upon professional development guidance provided by pharmacy experts upon student professional identity formation (PIF). Methods: Fifteen second professional year student pharmacists completed an elective course assignment to read 20 published personal letters from Letters to a Young Pharmacist, in which pharmacy experts offer career and life guidance to novice or student pharmacists. From those, each student selected four letters and for each composed a 500 to 600-word critical reflection describing the impact of the letter, yielding 60 reflections for thematic analysis. Each author individually analyzed and coded de-identified reflections for up to 3 types of impact. Data were then grouped for similarity and collapsed into themes; overarching evidence of transformative thinking and "eye-opening" were also coded. Results: Of 60 reflections, 160 types of impact were identified, and were grouped into five themes. Most often, students described an impact from Personal Growth (41.3%), followed by Professional Growth (16.9%), Forging Relationships (16.2%), Making an Impact (15%) and Morality (10.6%). "Eye-opening" and "transformative thinking" was evidenced in 21 of 60 (35%) and 53 of 60 (88.3%) reflections, respectively. Conclusions: Student pharmacists experienced growth in PIF by reflecting upon published excerpts from pharmacy experts, as demonstrated by coding for impact and transformative thinking. This novel method of students' critically reflecting upon expert's readings, followed by instructor feedback to reinforce the learning, offers a streamlined and easily implemented modality to enable students PIF development during their didactic curriculum.

Keywords: critical reflection, professional role-modelling, self-awareness, student pharmacist, student professional development, professional identity formation

### Introduction

The process of Professional Identity Formation (PIF) for student pharmacists begins upon matriculation into the first professional year, and continues throughout pharmacy school and beyond.<sup>1,2</sup> PIF is a multipronged process of development, or professionalization, in which the novice student pharmacist is introduced to foundational knowledge and is provided opportunity to observe members of the profession in action. PIF develops further when the learner is provided authentic practice opportunities within the profession, participating in actual pharmacy responsibilities, and receiving feedback under the supervision of mentors, preceptors, or supervisors. Over time as PIF matures, the novice demonstrates competence in the professional roles assumed, and begins to "think, act, and feel" like a member of the pharmacy community.3

Opportunities to develop PIF abound in the robust pharmacy curriculum in which knowledge, skills and attitudes are introduced in didactic coursework and authenticated primarily in experiential settings. Numerous co-curricular opportunities

Corresponding author: Laurie L. Briceland, PharmD Albany College of Pharmacy and Health Sciences, Albany, NY

Email: Laurie.briceland@acphs.edu

augment the curriculum and support PIF development by cultivating students' skills in leadership, communications, health-related community service, patient care activity, career exploration and professional networking with pharmacists in the field.<sup>4,5</sup> In further considering career exploration and networking with pharmacists in the field, it is well recognized that student pharmacists interact frequently with pharmacy educators and practitioners, many of whom serve as role models, in varied settings such as the pharmacy practice classroom or laboratory, Introductory and Advanced Pharmacy Practice Experience (IPPE and APPE) training sites, career panel programming sponsored by (co)-curricular organizations or pharmacy associations, or the pharmacy workplace.<sup>6-8</sup> Exposure to role models is crucial to PIF in student pharmacists, and just as with other aspects of PIF, role modelling should be introduced early in the curriculum followed by longitudinal exposures throughout the professional degree program.9 Of note, some have reported that the didactic curriculum provided limited PIF opportunities for students to observe role models, evaluate their own professional identities, and receive formative feedback on exercises in which they experiment with being a pharmacist. 10

One method to address these PIF limitations within the didactic curriculum and to introduce students to role models is through exercises in which pharmacy educator or practitioner role models share their professional stories and perspectives

Original Research **EDUCATION** 

with student pharmacists.11 The art of storytelling as a communication strategy can evoke the listener's imagination. In turn, the listener can subsequently experience a change in perspective and powerful emotions, which serve as catalysts to the "think, act, and feel like a pharmacist" underpinning of PIF. For instance, stories may influence PIF by developing empathy, patient advocacy, or professionalism attributes.<sup>3,11</sup> While learning about and from the authentic experience of pharmacy role models would not replace the student's own authentic practices, the sharing of the pharmacy expert's experience may augment the student's PIF development.

Inserting a storytelling exercise into the didactic curriculum can be labor-intensive and logistically challenging, especially if the class size is large. As a storytelling corollary, we wondered if students could also experience professionalization from reading and reflecting upon authentic experiences of pharmacy role models, who may well be people the student had never met. A review of the PIF literature did not reveal any reports of PIF development through reading and reflecting upon published expert excerpts, 12,13 and thus we proposed exploration of this novel method of PIF development within the didactic curriculum. By reading and reflecting upon authentic practice experiences and professional advice from pharmacy experts, would students gain eye-opening professionalization perspectives, supporting PIF? What impact would this written interface with pharmacy professionals have upon student professionalization and ultimately influencing PIF?

The objective of this study was to determine the impact of reading and reflecting upon professional development guidance by pharmacy experts on students' PIF. Specifically, we report our findings from a pharmacy professional development elective course in which students explored national pharmacy expert's professional guidance and then shared critical reflection on the professionalization impact of select expert's writings.

## Methods

Student Critical Reflection Exercise

Fifteen second professional year (P2) student pharmacists completed a professional elective course, Professional Development", during the spring 2020 semester. Within the course's PIF unit, each student completed didactic instruction on critical reflection, which included a review of the importance of becoming a reflective practitioner and the four levels of reflection: 1) non-reflection (superficial, lack of reflection with no application to future}; 2) understanding {includes importance of topic without analysis or future application); 3) reflection (includes analysis without application) to one's future}; or 4) critical reflection {includes analysis and transformative change or future application}. 14-16 Students were taught that the inclusion of the descriptor "critical" in critical reflection is intentional, as critical reflection provides evidence of transformative learning or behavior in the learner. Tips provided to students to assist in the art of critical reflection were: 1) What was your "aha" moment? What opened your eyes in the material you were reading (or activity you were doing)? What resonated with you? What really got you thinking? and 2) springboard into action: based on your newfound "aha" moment/knowledge, what will you specifically do now to address/move forward your new understanding/contention? A 2-week course assignment followed, with the goal of providing an opportunity to practice critical reflection and demonstrate professionalization impact of reading and reflecting upon professional development stories available in the literature. reflection was selected to examine professionalization impact of the readings upon students as it is an established method to demonstrate students' self-awareness and transformative thinking. 14,15

From the literature, we selected the American Society of Health-System Pharmacists (ASHP) book Letters to a Young Pharmacist: Sage Advice on Life & Career from Extraordinary Pharmacists (LTYP), 17 and provided electronic access to it for each student. LTYP was selected as our professional development exemplar because there are close to three dozen brief letters, authored by pharmacy experts. The letters provide varied career and professional guidance to students and novice pharmacists just beginning their pharmacy journeys, such as taking advantage of professional development opportunities, creating a professional network through pharmacy association and workplace involvement, and finding a mentor. We believed that these letters could serve as powerful motivators to young impressionable student pharmacists and could positively influence their professionalization and ultimately PIF.

Students were assigned to read 20 letters from LTYP, and of those, choose four letters and compose a 500- to 600-word critical reflection for each, describing the author's message and what the student learned from the letter. The student was asked to critically reflect upon the letter and write about the meaningful impact of the author's message, either positively or negatively, and discuss how the student will specifically transform behaviors in the immediate or longer-term future as the student continues along on their pharmacy journey.

Within the elective course, each reflection was graded using an instructor-developed assignment rubric to assess four levels of reflection, based on best practices in the literature<sup>16</sup> and our own practice with critical reflection in our curriculum. The rubric described four levels: 1) non-reflection (superficial, lack of reflection with no application to future); 2) understanding {includes importance of topic without analysis or future application); 3) reflection (includes analysis without application to one's future); or 4) critical reflection (includes analysis and transformative change or future application). Written feedback was provided to each student to reinforce the learning and growth of PIF from the exercise. This assignment constituted 20% of the course grade. Only reflections assessed as reflection or critical reflection were included in the thematic analysis. The

Original Research EDUCATION

College's Institutional Review Board reviewed this study and granted exemption for this exercise.

## Thematic Analysis of Reflections

The qualitative method of document analysis was employed to explore student reflections for themes of PIF impact. Thematic analysis and coding following a process described by Braun and Clarke<sup>18</sup> were applied in this study, as follows: 1) becoming familiarized with the data; 2) generating initial codes; 3) searching for themes when repetition occurs in the data; 4) reviewing the themes; and 5) defining and naming the themes, including sub-themes which constituted each identified theme. Reflections were de-identified by an administrative assistant and placed into a shared Excel database. Upon reading each reflection, each author individually analyzed and coded up to a pre-determined number of 3 types of impact per reflection. Reflections were also analyzed and coded for additional forms of evidence for: 1) transformative thinking (e.g., applications to future, propelled to make a change), and 2) "eye-opening" (e.g., never considered before, stating eyes were opened). Transformative thinking was an expectation of the critical reflection assignment, and thus was expected to be evident in most reflections.

Authors met frequently to move through the steps of thematic analysis, per above, and to resolve any coding classification discrepancies to reach consensus on coding and naming of themes. The lead author is the course instructor with longstanding expertise in teaching critical reflection, continuous professional development, professional identity formation and self-directed lifelong learning. The second author was an APPE student completing a Scholarship of Teaching and Learning elective, who received instruction on topics pertinent to this analysis.

## Results

### Derivation of Themes

All 60 reflections were assessed as either critical reflection (88%) or reflection (12%) and thus all were included in the thematic analysis. Upon the final step of the analysis, codes were similarly grouped and collapsed into five themes (subthemes in parentheses):

- Forging Relationships (relationship-building in the workplace; valuing teamwork; recognizing the importance of mentorship, finding a mentor/seeking advice; networking)
- Professional Growth (Serving or leading the profession/others; strategizing career opportunities, finding/adapting to the "right fit"; embodying passion/enthusiasm for pharmacy career)
- Morality (living a life of practicing kindness, goodness; epitomizing integrity; being true to one's values; "Doing the Right Thing")

- Making an Impact (emphasizing patient centricity, patient safety; working to effect change, making a difference in the lives of others)
- Personal Growth (practicing self-awareness; taking calculated risks; breaking out of one's "comfort zone"; exercising a growth mind set; gaining understanding of one's strengths and weaknesses, knowing one's limits; integrating work/life balance; setting personal mission statement, goal setting; overcoming/facing adversity/challenges; working hard; learning from past mistakes).

# Impact on Student Professionalization (or PIF)

Upon analysis of the 60 reflections, 160 types of impact were identified, coded, and grouped into five themes. The most common theme was Personal Growth (41.3%), followed by Professional Growth (16.9%), Forging Relationships (16.2%), Making an Impact (15%) and Morality (10.6%). In addition, 21 of 60 (35%) reflections exhibited evidence of "eye-opening", demonstrating that this assignment exposed students to some perspectives and experiences perhaps not previously considered. Further, 53 of 60 (88.3%) demonstrated evidence of exhibiting transformative thoughts to carry into their future careers.

Tables 1 and 2 provide a sampling of notable quotes from students as they qualitatively describe the professionalization impact upon reading the pharmacy expert's professional guidance.

#### Discussion

The process of socialization, or more specifically professionalization in the case of student pharmacists, is of utmost importance in enabling the learner to function as part of the community they are joining. Professionalization can be influenced by factors such as attitudes of health professionals interacting with students, the conduciveness of the learning environment, student self-assessment and reflection, and acquisition of norms and values acquired from authentic practice experiences or interaction with role models. 19 In our study, student pharmacists were immersed in several of these aspects of professionalization by reading about the norms and values of pharmacy role models, and self-reflecting upon the written guidance imparted by these experts in the field. As a result, student pharmacists experienced influences on their PIF (i.e., thinking or feeling like a pharmacist), as evidenced by quotations in Tables 1 and 2, and expressed relating to established members of the profession they are joining. Our findings complement two studies which demonstrated that student engagement with (in person) pharmacy role models contributed favorably to the development of the student's PIF.<sup>12</sup> Our method proved to be innovative in that we describe PIF in student pharmacists gained through passive experiences, as opposed to authentic practice. Using this novel method, including critically reflecting upon readings, followed by instructor feedback to reinforce the learning, offers a

Original Research EDUCATION

streamlined and perhaps more easily accomplished strategy (than in-person interactions) to enable students PIF development during their didactic curriculum. Like the experience of others,<sup>20</sup> our method provides some evidence that the purposeful structuring of learning experiences can influence PIF.

Further anecdotal evidence that this exercise proved fruitful in student professionalization was gleaned from a final course reflection exercise within the Professional Development elective in which students could write about the most impactful course component; a few students chose to reflect upon the LTYP critical reflection exercises. In those essays, students wrote that the LTYP exercises gave them the opportunity to learn from expert's experiences and incorporate lessons into their future, to self-reflect and learn more about oneself, and to express in their own words their thoughts on the readings (a skill they noted that was not often practiced in other courses in the curriculum). In fact, these opportunities that the students valued from the LTYP exercises were some of the very same noted by others as often lacking in pharmacy curricula. <sup>10</sup>

Types of impact were comprehensive, as shown in Table 1, and are representative of the content of the letters available to readers in the LTYP book. This innovative exercise serves as a template to allow customization of a PIF exercise to suit one's curricular needs, such as hand-picking excerpts with a particular focus of interest (e.g., understanding your strengths and weaknesses, or, the importance of networking), or one could leave the assignment open to student choice, as we elected to do. Instructors could alternatively structure the exercise by soliciting and using written excerpts from their own faculty or preceptor role models and share their powerful stories with students, which may make an even greater impact, since a previous study demonstrated that students appreciated storytelling role modelling by their faculty members with whom they have a connection.

A potential limitation to our research method is that we capped the number of types of impact *a priori* to 3 per reflection, which could have underestimated the impact of the exercise. In addition, given the methodology of this study in which the student interacts with a role model by reading a written excerpt, the student would not have an opportunity to receive direct feedback from the author of the letter, and author feedback may prove to be insightful and influence PIF. To advance this notion of including the opportunity for the student to interact with the writer, it is possible to create an exercise employing a virtual mentorship arrangement perhaps adapting some of the ideas posed by Lewis<sup>21</sup>, and/or involving affiliated preceptors.

Based on the positive reception of this exercise amongst the students, and our own analysis of the impact of the exercise, we have extended this exercise into our required curriculum in the first professional year (P1), such that each student, not

solely the handful of P2 students taking the professional elective, will reap the PIF benefits of learning from written pharmacy expert guidance. For the P2 Professional Development elective, since the students will have already read excerpts from LTYP the preceding year as a P1 student, we have kept the critical reflection exercise but are now using another ASHP publication, Letters from Rising Pharmacy Stars: Advice on Creating and Advancing Your Career in a Changing Profession, to provide students new material to digest.<sup>22</sup>

#### Conclusion

Reading and reflecting upon the professional development guidance written by pharmacy experts influenced student pharmacist's PIF in areas of personal and professional growth, forging relationships, making an impact, and morality. Importantly, even the written word of established pharmacists who are unknown to the student can serve as eye-opening impactful impetus to PIF in the novice student pharmacist.

Conflicts of interest: None Funding/Support: None

#### References

- Mylrea MF, Gupta TS, Glass BD. Professionalization in pharmacy education as a matter of identity. *Am J Pharm Educ*. 2015; 79(9):1-9. DOI:10.5688/ajpe799142
- Noble CN, O'Brien M, Coombes I, et al. Becoming a pharmacist: students' perceptions of their curricular experience and professional identity formation. Curr Pharm Teach Learn. 2014; 6 (3):327-339. DOI: 10.1016/j.cptl.2014.02.010
- Janke KK, Bloom TJ, Boyce EG, et al. A Pathway to Professional Identity Formation: Report of the 2020-2021 AACP Student Affairs Standing Committee. Am J Pharm Educ. 2021: 85(10), Article 8714. DOI:10.5688/ajpe8714
- Fox LM, Sease JM. Impact of co-curricular involvement on academic success of pharmacy students. Curr Pharm Teach Learn. 2019; 11 (5):461-468.
   DOI:10.1016/j.cptl.2019.02.004
- Vos SS, Sabus A, Seyfer J, et al. Using continuing professional development to create meaningful cocurricular learning opportunities for all student pharmacists. Am J Pharm Educ. 2018; 82(4): Article 6270. DOI: 10.5688/ajpe6270
- Hoffman J, Chung E, Hess K, et al. Overview of a cocurricular professional development program in a college of pharmacy. *Curr Pharm Teach Learn*. 2017; 9(3):398-404. DOI: 10.1016/j.cptl.2017.01.010
- Bloom TJ, Smith JD, Rich W. Impact of pre-pharmacy work experience on development of professional identity in student pharmacists. Am J Pharm Educ. 2017; 81(10): Article 6141. DOI: 10.5688/ajpe6141
- Eckel SF. P<sup>5</sup> the compound interest formula for professional development. *Am J Health-Syst Pharm.* 2022: 79 (5): 385-387. DOI: 10.1093/ajhp/zxab376
- Schafheutle EI. Hassell K, Ashcroft DM, et al. How do pharmacy students learn professionalism? Int J Pharm Pract. 2012; 20(2):118-128. DOI: 10.1111/j.2042-7174.2011.00166.x

Original Research EDUCATION

- Noble C, Coombes I, Shaw PN, Nissen LM, Clavarino A. Becoming a pharmacist: the role of curriculum in professional identity formation. *Pharm Pract (Granada)*. 2014;12(1)327-339. DOI: 10.4321/s1886-36552014000100007
- Gilliam EH, Brunner JM, Bolan J, et al. Cultivating a culture of reflection among pharmacy students through storytelling. Am J Pharm Educ 2020; 84 (4) Article 7633. DOI: 10.5688/aipe7633
- Noble C, McKauge L, Clavarino A. Pharmacy student professional identity formation: a scoping review. *Integr Pharm Res Pract.* 2019; 8:15-34.
   DOI: 10.2147/IPRP.S162799
- Trede F, Macklin R, Bridges D. Professional identity development: a review of the higher education literature. Studies in Higher Educ. 2012;37(3):365-384. DOI: 10.1080/03075079.2010.521237
- Tsingos C, Bosnic-Anticevich S, Smith L. Reflective practice and its implications for pharmacy education. Am J Pharm Educ. 2014; 78(1): Article 18.
   DOI: 10.5688/ajpe78118
- Brown B, Holt-Macey S, Martin B, et al. Developing the reflective practitioner: what, so what, now what. Curr Pharm Teach Learn. 2015; 7(5):705-715. DOI: 10.1016/j.cptl.2015.06.014
- Kember D, McKay J, Sinclair K, Wong FKY. A four-category scheme for coding and assessing the level of reflection in written work. Assess Eval High Educ. 2008;33(4):369-379. DOI: 10.1080/02602930701293355

http://z.umn.edu/INNOVATIONS

- Cantrell SA, White SJ, Scott BE, eds. Letters to a Young Pharmacist: Sage Advice on Life & Career from Extraordinary Pharmacists. American Society of Health-System Pharmacists; 2014. DOI: DOI: 10.37573/9781585284009
- Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006: 3(2):77-101. DOI: 10.1191/1478088706qp063oa
- Johnson JL, Chauvin S. Professional identity formation in an advanced pharmacy practice experience emphasizing self-authorship. *Am J Pharm Educ.* 2016; 80(10): Article 172.
   DOI: DOI: 10.5688/ajpe8010172
- Lewis TD, Flannery A. Advancing professional development through virtual mentoring. *Hosp Pharm.* 2016; 51 (4); 277-278. DOI: 10.1310/hpj5104-277
- 22. Cantrell SA, White SJ, eds. Letters from Rising Pharmacy Stars: Advice on Creating and Advancing Your Career in a Changing Profession. American Society of Health-System Pharmacists; 2017. DOI: 10.37573/9781585285693

Original Research

Table 1. Illustrative Quotes from Thematic Analysis of 60 Letters to a Young Pharmacist Reflections

Theme	Sub-themes	Illustrative Quotes
Forging Relationships	Relationship-building in workplace; valuing teamwork; finding a mentor; networking	"Lucas states it is important to make the effort to form a great bond with the people you work with in order to make good teamwork."  "McGillis points out that his mentors paid more importance to being helpful to others instead of personal glory. I found this really inspiring because it tells me that the past generation passes on wisdom to the new generation, and we should strive to learn all we can to pass that on to the next
		generation."
Professional Growth	Serving others or leading the profession; strategizing career opportunities; adapting to "right fit"; embodying passion for pharmacy career	"You cannot put a monetary value on career satisfaction. I want to wake up every morning for the rest of my life and career as a pharmacist and truly love what I'm doing and feel fulfilled doing that." (Clark letter)
Morality	Practicing kindness, goodness; epitomizing integrity; being true to one's values; doing the right thing	"I want to make sure that every patient in our hospital is taken care of the same way I would hope someone would take care of my family member." (Ginsburg letter)
		"I aspire to not only have a job, but a job that defines me as a person. I want it to be able to describe me as a caregiver, kind, gently, and listener." (Devereaux letter)
Making an Impact	Emphasizing patient centricity, patient safety; working to effect change; making a difference in the lives of others	"I think this quote sums up the mindset a pharmacist should have: Pharmacists should consider a perspective larger than their own because they are working to serve a patient, not themselves." (Hunt letter)
Personal Growth	Practicing self-awareness; exercising a growth mindset; understanding one's strengths and weakness; integrating work/life balance; goal setting; facing adversity	The author emphasizes the importance of being able to adapt to whatever life throws at us, to be flexible and overcome challenges in our way. Whatever that path will lead me to, I have to be flexible and roll with the flow." (Devereaux letter)

Original Research

Table 2. Illustrative Quotes from *Letters to a Young Pharmacist* Reflections Demonstrating Evidence of Eye-Opening and Transformative Learning

Theme	Sub-themes	Illustrative Quotes
Eye-Opening	Realizing notions never previously considered; learning something new; stating eyes were opened	"When I decided to become a pharmacist, I never saw myself working in a hospital. However, I'm now open to the idea and this upcoming IPPE would be a great way to get of this comfort zone and experience a hospital setting." (Caldwell letter)
		"It is important to take the time, even if only a few minutes, to make your patient feel like that 'every patient'. Every patient has a story and sometimes they just need you to listen. It made me realize how important it is to establish a pharmacist-patient relationship." (Ginsburg letter)
		"I found this letter very eye-opening. There will be several times in life when you must decide which values are most important to you and if you are willing to compromise on some of your values to achieve things." (Anderson letter)
Transformative Learning	Being motivated to make a change in future behavior; applying new notions to practice of pharmacy; planning	"It is important for all pharmacists to have good leadership skills, and knowing what qualities make for a robust leader is something that I will carry with me into the future. I will apply those skills to earn leadership experience of my own." (Ray letter)
	specific actions or behaviors to effect a change	"The author suggested constructing a personal mission statement that enumerates our values. I plan to do this as he explains it will act as a guidepost in the future when seeking employment." (Anderson letter)
		"The author insists that we must be courageous to take a chance on growth experiences, even if not comfortable at first. As a result of reading and reflecting on this letter, I will push the boundaries of my comfort zone by being open to new opportunities." (Riggins letter)