Society of Medical Education & Research

2023, Volume 3, Issue 2, Page No: 16-24
ISSN: 3108-4850

Annals of Pharmacy Education, Safety, and Public Health Advocacy

# Factors Shaping Professional Identity Construction among Senior Pharmacy Students

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## Abstract

This research investigated how professional identities are developed among final-year Doctor of Pharmacy students, with particular attention to the social, educational, and experiential influences shaping this process.A qualitative instrumental case study was conducted at a single academic institution, the Leslie Dan Faculty of Pharmacy at the University of Toronto. Thirteen fourth-year pharmacy students were recruited and interviewed using a semi-structured format. Data were interpreted through a poststructural social identity lens to examine how students construct and negotiate their professional identities.Five central influences on professional identity development emerged from the analysis: motivations for entering the pharmacy profession, educational content and structure, practice settings, relationships with preceptors, and experiences with patients. The program's curriculum foregrounded the role of pharmacist as health care provider, encouraging students to envision themselves primarily as clinicians. Consequently, students evaluated and, at times, rejected preceptors and practice environments that constrained their ability to perform this clinician-oriented identity.The study demonstrates that pharmacy students tend to prioritize a health care provider identity, which may limit recognition of other meaningful professional roles within pharmacy practice. These findings highlight the need for educational approaches that more explicitly recognize and legitimize a plurality of pharmacist identities to support a resilient and adaptable future workforce.

**Keywords:** Pharmacy education, Professional socialization, Professional identity, Senior Pharmacy Student

## Introduction

Scholarly discussion surrounding professional identity in pharmacy education and practice has expanded considerably in recent years [1–7]. Within the Academy, there is growing momentum to position professional identity formation as a central objective of pharmacy education, mirroring developments previously seen in medicine [2, 8–16]. This momentum is reflected in recent calls to action that seek to define core components of professional identity formation and to propose strategies for embedding them within pharmacy education systems [3, 4]. Alongside these initiatives is an increasing recognition of the need for structured, intentional approaches to supporting professional identity development in students, as well as targeted faculty development to facilitate this work [2].

Much of the advocacy surrounding professional identity formation rests on the assumption that shared standards can be articulated, taught, and internalized. Such an assumption implies a singular, correct way of "being" a pharmacist, an understanding that risks oversimplifying the nature of professional identity. In contrast, this study draws on poststructuralist perspectives informed by the work of Foucault and Hall, which frame identity as socially produced and shaped by historical context [17, 18]. Hall argued that identities represent the labels we assign to the various ways individuals are positioned within, and actively negotiate, narratives of the past [18]. From this standpoint, professional identity is understood as fluid and continuously reshaped through engagement with social environments and relationships [16, 18].

**Access this article online** https://smerpub.com/

**Received:** 28 March 2023; **Accepted:** 27 July 2023



**How to cite this article:** Ortega CM, Ruiz EP, Moreno JL. Factors Shaping Professional Identity Construction among Senior Pharmacy Students. Ann Pharm Educ Saf Public Health Advocacy. 2023;3(2):16-24. https://doi.org/10.51847/03yqS1bIgQ

Professional identity formation is widely described as an ongoing and evolving process through which individuals transition from laypersons to health care professionals, beginning during formal education and extending across professional life [10, 15, 16]. A well-developed professional identity is associated with ethical practice, confidence, and self-awareness [16]. Given its importance to both individual competence and the longevity of professional communities, professional identity formation has become a focal concern across health professions education. Despite broad agreement on its significance and the value of continued dialogue in pharmacy education, there is no pressing need to establish a universal definition of what it means to be a pharmacist. Attempting to do so prematurely risks reducing a multifaceted phenomenon to a superficial academic construct.

Professional identity formation is grounded in complex psychological and social mechanisms [16] that remain insufficiently examined within pharmacy education. Empirical evidence addressing how current educational practices influence identity development is limited, and there is a notable lack of research considering additional contextual influences, including race, ethnicity, and broader sociohistorical factors [19–23]. Moreover, little is known about how students enrolled in Doctor of Pharmacy (PharmD) programs understand and shape their emerging professional identities. A recent scoping review of professional identity formation in pharmacy students identified only a small number of empirical studies and emphasized the need for further investigation in this area [24]. Developing a more nuanced understanding of how pharmacy students construct professional identity is essential for identifying educational experiences that most effectively support professional growth.

At present, the Academy faces a critical decision regarding the advancement of the professional identity agenda. One path involves formally mandating professional identity formation as a core outcome of pharmacy education and adopting reform strategies modeled after those used in other health professions. Alternatively, the Academy may choose a more exploratory approach, prioritizing an in-depth examination of how students currently develop and enact their professional identities within existing educational frameworks. The latter approach offers the opportunity to inform pharmacy-specific educational reforms that support students in learning to think, act, and feel like pharmacists [25], while preserving their ability to embrace the diverse roles required of them upon graduation. Accordingly, the purpose of this study was to examine the key influences on professional identity construction among fourth-year PharmD students.

## Materials and Methods

An instrumental case study design situated at a single institution was undertaken to examine how professional identity is constructed by pharmacy students. This design was selected because it supports close examination of multifaceted social phenomena, such as identity formation, within their authentic educational settings—here, a Doctor of Pharmacy (PharmD) program [26]. The case comprised fourth-year students, chosen due to their advanced stage of training and cumulative exposure to academic instruction, informal learning, and diverse pharmacy practice environments. Limiting the study population to final-year students within one pharmacy school enhanced contextual specificity and strengthened information power [27]. The research took place at the Leslie Dan Faculty of Pharmacy, University of Toronto, following approval from the University of Toronto Research Ethics Board.

All individuals enrolled in the fourth year of the PharmD program were eligible to participate. Recruitment began with a study invitation distributed via email to the entire cohort, and participation was voluntary. A convenience sampling approach was used, with the intent of capturing variation across participants' backgrounds, including gender, educational pathways prior to pharmacy school, pharmacy-related work experience, and types of experiential placements completed. To broaden participation, a snowball sampling strategy was employed by asking interviewees to suggest peers who might also be interested. Written informed consent was obtained from all participants. Interviews were conducted between June and November 2021 using Zoom (Zoom Video Communications Inc) and were facilitated by the research associate. Each interview lasted approximately one hour, was audio recorded, and professionally transcribed verbatim. In total, 188 pages of interview transcripts were generated for analysis.

Semi-structured interviews were selected as the primary data collection method to elicit detailed accounts of students' personal experiences with professional identity development, a process understood to be subjective and deeply individualized [28]. This format allowed

participants to engage in open discussion and reflection [28]. The interview guide was initially developed by the principal investigator and subsequently refined through collaboration with the research team. Prior to data collection, the guide was piloted by the research associate to ensure clarity and flexibility. Interview questions encouraged participants to reflect across their pharmacy education and consider how various experiences shaped their professional self-concepts and future career intentions. Follow-up questions were guided by participant responses, allowing for exploration of emergent ideas and deeper contextual understanding [28].

Data analysis occurred concurrently with data collection in an iterative and reflexive manner [28], guided by a constructivist interpretive approach. Following each interview, the principal investigator conducted line-by-line open coding to develop preliminary insights and to inform ongoing refinement of the interview guide. After all interviews were completed, codes were collaboratively reviewed and grouped into broader conceptual categories by the principal investigator and the final author. The analytic framework drew on theories of professional socialization, particularly poststructural perspectives on identity [18, 29, 30]. This work extended earlier research highlighting the presence of multiple identities within pharmacy education [1] and their influence on pharmacists' professional identity development in practice settings [31]. Within this framework, professional identity was conceptualized as a socially produced process shaped by educational structures, workplace experiences, and broader social interactions, through which learners come to adopt professional roles aligned with their perceptions of meaningful pharmacy practice. This conceptualization supported examination of how students approached the transition from training to professional practice. Our analytical stance is consistent with scholarship that views professional identity as fluid and continuously evolving rather than fixed [11, 16, 29].

Throughout the analytic process, regular discussions among the research team were used to refine interpretations and identify overarching themes. Both the first and final authors are pharmacists and faculty members at the study site, positioning them as professional insiders. Reflexivity was maintained by critically examining assumptions and positionality during team meetings that included nonpharmacist researchers. The interdisciplinary nature of the research team contributed to analytical depth and rigor. To enhance trustworthiness, member checking was conducted by sharing preliminary findings with participants for feedback and clarification [32]. In keeping with case study methodology, the analysis prioritized understanding variation in student experiences rather than seeking consensus across accounts.

To situate the findings, the educational context of the study site is described. The PharmD program at the Leslie Dan Faculty of Pharmacy is a four-year professional degree combining didactic coursework with experiential learning. Classroom-based instruction comprises the first three years of the curriculum, complemented by four-week early practice experience (EPE) placements following the first and second years. Advanced pharmacy practice experience (APPE) rotations, totaling 35 weeks, occur after completion of the third year. The curriculum is aligned with the Educational Outcomes established by the Association of Faculties of Pharmacy of Canada (AFPC) and the accreditation standards of the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) [33, 34]. These standards closely correspond with the Center for the Advancement of Pharmacy Education (CAPE) outcomes and the Accreditation Council for Pharmacy Education (ACPE) standards used in the United States.

## Results and Discussion

Analysis of the interview data generated rich understanding of the influences shaping professional identity development among pharmacy students. Thirteen students in the fourth year of the PharmD program at the Leslie Dan Faculty of Pharmacy participated in the study. Recruitment concluded after the thirteenth interview, as subsequent data collection was deemed unnecessary due to the absence of new or additional insights.

Participant demographic characteristics are summarized in **Table 1.** The sample closely reflected the overall class composition with respect to gender distribution, with males representing 46% and females 54% of participants, compared to 42% and 58%, respectively, in the full cohort. Similarly, participants' educational backgrounds prior to pharmacy school mirrored those of the broader student population in terms of years of postsecondary study completed before program entry.

**Table 1.** Demographic Characteristics of Fourth-Year Pharmacy Students Participating in a Study Examining Influences on Professional Identity Construction

| Demographic variable | No. (%) |
|---|---|
| Gender | |
| Female | 6 (46) |
| Male | 7 (54) |
| Years of university prior to entering pharmacy school | |
| 2 | 0 (0) |
| 3 | 6 (46) |
| 4 or more | 7 (54) |
| Area of study prior to entering pharmacy school | |
| Biochemistry/pharmaceutical chemistry | 3 (23) |
| Microbiology | 1 (8) |
| Biology, physiology, biomedical science | 8 (61) |
| Pharmacology | 1 (8) |
| Previous pharmacy experience prior to entering pharmacy school | |
| Yes | 4 (31) |
| No | 9 (69) |

Thematic analysis identified five broad categories that shaped pharmacy students' professional identity development: pathways into pharmacy, curriculum, practice environment, preceptors, and interactions with patients. These themes are presented below without hierarchical ordering.

*Theme 1: path to pharmacy.*

This theme captures the personal, academic, and contextual factors that influenced participants' decisions to pursue pharmacy as a profession. Students described entering pharmacy through two primary trajectories. Some followed a "plan A" route, having identified pharmacy as a career option early in their undergraduate education. Others described a "plan B" pathway, where pharmacy became an alternative to other health professions—most commonly medicine—often due to unsuccessful admission attempts or a general desire to work within health care. Irrespective of entry route, participants reported limited understanding of the pharmacist's role at the time of admission. Most initially viewed pharmacists primarily as medication dispensers and were unaware of the profession's broader scope. Exposure to the PharmD program challenged these assumptions and required students to reassess and reconstruct their understanding of what it means to be a pharmacist. This renegotiation was foundational to professional identity development, as students could not fully engage in the process of becoming a pharmacist without first clarifying the professional role they were striving to embody.

*Theme 2: curriculum.*

The curriculum theme encompasses both formal educational content and the hidden curriculum, defined as implicit social norms and values that signal what is prioritized within educational and practice settings [32, 35]. Participants consistently described the didactic curriculum as effective in equipping them with strong pharmacotherapy knowledge and reinforcing their identity as medication experts. However, they also emphasized gaps between classroom learning and the realities of practice. Experiential learning during early practice experience (EPE) and advanced pharmacy practice experience (APPE) rotations was viewed as critical for learning how to operationalize knowledge and adopt the behaviors, decision-making processes, and mindset associated with professional practice. Students overwhelmingly reported that experiential settings, rather than formal coursework, were where they truly learned how to think and act like pharmacists.

Although participants did not explicitly label these influences as part of the hidden curriculum, they described experiences consistent with this concept, such as unspoken expectations in community pharmacy settings where speed and productivity often took precedence over patient-centered care. Ethical tensions related to performance metrics, prescription quotas, and business pressures were frequently discussed. Students expressed discomfort when these pressures conflicted with their desire to prioritize clinical care. Given the high value they placed on their identity as health care providers, many experienced frustration during community rotations when organizational structures limited their ability to enact this role. In response, several students indicated they planned to avoid corporate pharmacy settings after graduation, perceiving them as incompatible with their internalized professional identities.

*Theme 3: environment.*

Practice environment emerged as a significant influence on professional identity construction. Participants described how factors such as workload, practice setting, and physical proximity to other health professionals

shaped their ability to perform as health care providers. High-volume community pharmacies were frequently described as environments that constrained clinical engagement, particularly due to time limitations that hindered meaningful patient interactions and assessments. These conditions created tension for students who strongly identified as clinicians. Physical isolation from other health care professionals further compounded these challenges, particularly in community pharmacies where limited access to patient records impeded clinical decision-making. In contrast, hospital settings were described as more supportive of clinical practice, offering greater access to patient information and facilitating integration within interprofessional teams, which reinforced students' health care provider identities.

*Theme 4: preceptors.*

Preceptors played a central role in shaping students' evolving professional identities. Participants described both affirming and discouraging experiences with pharmacist preceptors and reflected on how these encounters influenced their perceptions of professional practice. Positive experiences were associated with preceptors who emphasized patient-centered, clinically focused care. Students were particularly inspired by pharmacists who cultivated strong patient relationships, confidently communicated recommendations to physicians, and proactively optimized medication therapies. These role models reinforced students' aspirations to practice as health care providers. Autonomy was another defining feature of positive preceptor experiences. Students valued opportunities to practice independently, experiment with different professional approaches, and build confidence through supported decision-making.

Conversely, negative experiences were often linked to preceptors who prioritized dispensing tasks and business-related responsibilities over clinical care. Students expressed dissatisfaction with preceptors who operated below their perceived scope of practice or focused heavily on productivity metrics. These experiences, most commonly reported in corporate pharmacy environments, created professional identity dissonance. Students struggled to reconcile their self-concept as clinicians with roles centered on dispensing or business functions. To resolve this tension, many concluded that such environments were not viable long-term practice options. Overall, students' reflections underscored the influential role of preceptors in shaping their understanding of professional norms and reinforced the importance of selecting future practice settings that would support their health care provider identity.

*Theme 5: patient interactions.*

Interactions with patients also significantly contributed to professional identity development. Students highlighted the importance of forming ongoing therapeutic relationships and observing pharmacists who demonstrated compassion and extended care beyond narrowly defined role expectations. Participants frequently discussed the disconnect between how they perceived themselves—as health care providers—and how they believed the public viewed them, often as "pill pushers." This perceived mismatch generated frustration and reinforced students' desire to assert a more clinically oriented professional identity.

This qualitative investigation examined the influences shaping how final-year pharmacy students come to view certain aspects of pharmacy practice as central to their professional identities. The findings demonstrate that professional identity construction is shaped through multiple, interconnected influences embedded within pharmacy education. Specifically, students' entry pathways into pharmacy, curricular experiences, interactions with preceptors, characteristics of practice environments, and engagement with patients all contributed meaningfully to identity development. Many of these influences mirror those reported in existing literature across medical and pharmacy education [5, 14, 24, 36–41]. For example, Wong and colleagues identified five determinants of professional identity formation among medical students—prior experiences, role models, patient encounters, curriculum, and societal expectations—which closely align with the themes identified in the present study [36]. Similarly, research involving pharmacy students has highlighted the importance of experiential learning, employment experiences, public perception, and pedagogical approaches in shaping identity [24, 38, 41–43].

Findings related to students' pathways into pharmacy indicate that most participants began their training with a limited understanding of the pharmacist's role beyond medication dispensing. This observation is consistent with earlier research involving first-year pharmacy students, which found that pharmacy was frequently selected as an alternative rather than a primary career choice, often driven by a general desire to work in health

care [44]. These findings suggest that students enter pharmacy programs with preconceived notions rooted in the dispenser identity and depend heavily on educational experiences to broaden their understanding of what it means to practice as a pharmacist.

The curriculum emerged as a particularly influential mechanism in shaping professional identity. Participants described didactic coursework as essential for developing pharmacotherapy expertise, while experiential education offered opportunities to translate theoretical knowledge into practice. Students reported feeling well prepared to function as health care providers and expressed strong commitments to patient-centered care, collaborative practice, and advocacy within interprofessional teams. At the same time, they described rejecting alternative professional roles—such as those emphasizing dispensing or business functions—when encountered during experiential placements. These identities were perceived as misaligned with their educational preparation and professional aspirations. Collectively, these findings point to powerful socialization processes embedded within the formal curriculum that elevate clinical roles while implicitly marginalizing other common pharmacist functions. This observation is consistent with prior scholarship demonstrating a dominant clinician discourse within North American pharmacy education [1]. Such curricular emphasis may have broader implications for the profession, as graduates may avoid positions that limit their ability to enact a health care provider identity.

The study also revealed the influence of a hidden curriculum, particularly within corporate pharmacy contexts. While hidden curricula can reinforce positive professional norms, participants described experiences that conveyed implicit messages valuing productivity over patient care. During experiential placements and part-time employment, students observed pharmacists prioritizing dispensing volume and business metrics, often at the expense of clinical engagement. In these environments, students reported feeling discouraged—or even stigmatized—when they devoted time to patient assessment. These experiences contributed to the devaluation of merchant and dispenser identities [1] and reinforced what has been described as an "assumptive professional typology of 'a good pharmacist'" centered almost exclusively on the health care provider role [29]. Such framing risks narrowing the perceived legitimacy of diverse pharmacy practices and may contribute to workforce challenges, particularly in community pharmacy settings [1, 31]. Structured opportunities for guided reflection with faculty following experiential placements may help students process identity tensions and mitigate the unintended effects of the hidden curriculum.

Preceptors were identified as another critical influence on professional identity formation. Both affirming and discouraging role-modeling experiences shaped students' perceptions of professional norms and expectations. These findings reinforce previous work emphasizing the importance of role modeling in identity development across health professions [24, 36, 37, 40]. They underscore the need for enhanced preceptor development initiatives that promote alignment between professional values and workplace behaviors. Facilitated discussions with faculty about experiential learning may also help students critically reflect on discrepancies between formal instruction and practice realities, particularly when hidden curriculum issues arise [15, 24, 38, 40].

The findings further suggest that students at the Leslie Dan Faculty of Pharmacy strongly internalize a health care provider identity, often at the expense of other legitimate pharmacist roles. This pattern is unsurprising given the emphasis placed on pharmaceutical care and clinical competencies within the current PharmD curriculum, as well as within AFPC Educational Outcomes and CCAPP Accreditation Standards. The curriculum is heavily weighted toward pharmacotherapy and medication management, reinforcing a care-provider-centered model of practice. The AFPC explicitly positions professional identity within the care provider role, stating that graduates must integrate competencies such as communication, collaboration, leadership, advocacy, and scholarship while functioning primarily as care providers [33]. This framing suggests that pharmacy education in Canada privileges a standardized identity rather than supporting the development of multiple, contextually relevant professional identities. Prior research has shown that pharmacists often occupy diverse roles and may struggle to enact a health care provider identity in certain practice environments [31], leading to ongoing tension between clinical, dispensing, and business discourses [31, 45]. Such identity conflict may contribute to dissatisfaction, disengagement, and attrition within the profession. Given the alignment between Canadian accreditation standards and CAPE and ACPE frameworks, these findings are likely relevant to PharmD programs in the United States

and other regions influenced by North American educational models.

This study contributes meaningful insights into the ways pharmacy students construct professional identities during training and highlights the importance of exposing learners to a broader range of pharmacist identities. Supporting students in navigating competing identity discourses may prevent them from having to reconcile these tensions independently [11]. Methodologically, this work advances the literature by applying a sociocultural lens and employing rigorous qualitative approaches appropriate for examining a complex construct such as professional identity.

Further research is needed to explore the extent to which these findings resonate across different institutional, national, and cultural contexts. While many identified influences are likely applicable across PharmD programs in Canada and the United States, variations in sociocultural and health care systems may shape identity formation in distinct ways. Additional research examining the relationship between professional identity development, career choices, and practice outcomes would be valuable. Moreover, given increasing diversity within pharmacy student populations, investigating the role of race and ethnicity in professional identity construction is an important area for future inquiry [19, 22].

Several limitations warrant consideration. As a single-institution study, findings may not be fully transferable to pharmacy programs that differ substantially from the University of Toronto. However, the study was conducted at Canada's largest pharmacy school, and in-depth interviews with a diverse group of participants yielded rich data and recurring themes, suggesting sufficient information power to capture common socialization experiences. Additionally, the Canadian context, characterized by a publicly funded health care system, may influence experiential learning differently than systems in other countries. Finally, the study relied solely on interview data and did not incorporate additional sources such as admissions materials, curriculum mapping, or document analysis, which may have further strengthened analytic rigor.

## Conclusion

This study of final-year pharmacy students highlights professional identity formation as a fluid, evolving, and socially negotiated process. Students actively shape their professional identities through ongoing engagement with educational content, patient care experiences, preceptors, and varied pharmacy practice settings. The findings illustrate how the curriculum at the Leslie Dan Faculty of Pharmacy strongly validates the health care provider role, inadvertently limiting the legitimacy of alternative pharmacist identities. As a result, students increasingly seek learning and career pathways that support their development as clinicians. To better prepare the profession to address current and future medication-related challenges, pharmacy education would benefit from curricular reforms that intentionally recognize and support a broader range of pharmacist roles.

**Acknowledgments:** The authors acknowledge the assistance of the research associates in the Education Office at the Leslie Dan Faculty of Pharmacy who conducted the qualitative interviews.

**Conflict of Interest:** None

**Financial Support:** None

**Ethics Statement:** None

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