RESEARCH

Professional Identity Formation in Pharmacy Students During an Early Preregistration Training Placement

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Objective. To explore the lived experiences of pharmacy students undertaking an early preregistration training placement in the United Kingdom, particularly with respect to the development of different aspects of their professionalism.

Methods. Fourteen students returning from an early preregistration placement (during the third year of their pharmacy degree) were interviewed, using a semi-structured approach. Grounded theory methods were used to analyze the transcripts and a theory was developed.

Results. Developing a professional identity was the core process that occurred during the placement. This included four stages: reflection, selection of attributes, professional socialization, and perception of role. As a consequence of developing a professional identity, participants had a strong vision of the kind of pharmacist they wanted to be when qualified. They articulated an increased responsibility as students, and began to see themselves as a “trainee professional.”

Conclusion. The findings of this study strongly support having an early preregistration period for pharmacy students to develop a sense of professional identity and strengthen their motivation to learn.

Keywords: professionalism, professional identity, professional socialization, grounded theory, student

INTRODUCTION

Development of professional attributes through classroom study and practice placements is considered an essential part of the education of pharmacists, yet the process by which this occurs is poorly understood. Many studies describe the benefits that students and employers gain from exposure to the workplace, and it is widely accepted that it helps students to contextualize knowledge, understand the complexities of the working environment, develop their practical skills, consolidate career choice, and begin professional socialization.¹⁻⁴ Cruess and colleagues proposed that development of a professional identity should be a key objective of medical education.⁵ Monrouxe proposed that it is vital to gain an understanding of the way identities develop within medical education as trainees who struggle with this process are likely to develop unstructured coping mechanisms and come into conflict with the professional role or reject it completely.^{6,7}

These issues will likely surface in student pharmacists as well as in medical students. However, the way that

student pharmacists make sense of their experiential learning while on work-based placements, and how this impacts their professional development, professional socialization, and professional identity is largely unexplored. Because unprofessional behavior from pharmacists and other health care professionals receives public attention, the reassurance that registered pharmacists are professional “to the core” has become increasingly important.⁸

Pharmacy students in most countries, including the United Kingdom and United States, are required to undertake work-based placements as part of their education.^{9,10} In the United States this is via mandated introductory pharmacy practice experiences (IPPEs) and advanced pharmacy practice experiences (APPEs). However, in the United Kingdom, while all schools of pharmacy arrange placements for their students, these are usually short term (one to five days per year). Hammer and Roth and Zlatic regard that the role models students are exposed to during work-based placements are key to their development of professionalism and caution against exposing students to negative role models.^{11,12} Other studies have discussed the potential for placements to have a negative impact on health care students’ development of professionalism and professional socialization. Unprofessional environments can encourage a strategic

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approach by students to placements and cause disillusionment as a result of the gap between theory and practice.^{13,14}

The term “professional socialization” has been collaboratively defined by the American Pharmaceutical Association Academy of Students of Pharmacy-American Association of Colleges of Pharmacy Council of Deans (APhA-ASP/AACP-COD) as “the process of inculcating a profession’s attitudes, values and behaviors in a professional.”¹⁵ Professional identity is different to the process of professional socialization and has been defined as “the relatively stable and enduring constellation of attributes, beliefs, values, motives and experiences in terms of which people define themselves in a professional role.”¹⁶ In 2014, an AACP-COD taskforce defined professional identity formation as “the transformative process of identifying and internalizing the ways of being and relating within a professional role.”¹⁷ There is now a growing volume of literature worldwide emphasizing the importance of the development of professional identity in pharmacists.¹⁸⁻²⁰

Some aspects of the development of professional socialization and professional identity have been studied in the United Kingdom, where the standard model of pharmacist training involves completing a four-year Master of Pharmacy (MPharm) degree program. This is followed by employment for one year while completing a practice-based preregistration training placement under supervision of a pharmacist tutor, without direct contact with the university. Graduates must pass a regulatory examination at the end of this pre-registration year in order to qualify as a pharmacist and register with the General Pharmaceutical Council. Jee and colleagues have investigated the development of professional socialization in MPharm graduates over the course of their pre-registration training placement.^{21,22} Ratings of all aspects of professionalism as measured by both trainees and their tutors increased both quantitatively and qualitatively. Trainees felt that the people who had influenced them the most throughout the year were their pre-registration tutor and other pharmacists. Trainees’ confidence grew throughout the year as did the importance they assigned to professionalism. These studies gave an initial insight into how preregistration pharmacists become professionally socialized while on placement. One university in the United Kingdom has run an intercalated MPharm program for the last 45 years in which students undertake two six-month preregistration training placements in different years of the program: an early placement and a late placement (in year 3 and year 5, respectively), which can be in different sectors and are independent of the university. This offers an opportunity to study the

development of professionalism earlier (ie, in students rather than graduates). There is currently no published literature on the impact of these placements on students’ professional development, professional socialization, and professional identity. The aim of this study was to use a grounded theory approach to explore the lived experiences of MPharm students when undertaking an early preregistration training placement as part of an intercalated program, particularly with respect to the development of different aspects of their professionalism. Ethical approval for the study was gained from the University of Bradford Ethics Committee.

METHODS

A qualitative, grounded theory approach was appropriate for this study as the aim was to generate theory about how and why a phenomenon occurs, rather than simply describe it.^{23,24} Constructivist grounded theory methods were used in this study to ensure that any substantive theories generated were firmly and demonstrably grounded in data.²⁴

Data were collected by conducting face-to-face semi-structured interviews with pharmacy students, with each interview lasting up to one hour. Interviews were conducted between October 11, 2012, and October 26, 2015. This was a three-year period because of the need to fully transcribe and analyze each transcript between interviews. The early preregistration training placement took place from July to December each year, so interviews could not be conducted until students returned to university the following year. In addition, the researcher took a year of maternity leave during this time.

While focus groups would have been a justifiable method of data collection for this study, the investigators felt that the ability to discuss in detail a participant’s personal experience and views made one-to-one interviews more pertinent. Participants may also have had concerns about confidentiality in focus groups, particularly if they had negative views of their placement. They were still studying and may not have wanted to disagree openly with their peers.

All interviews took place in a neutral venue and were audio-recorded. The interview guide is outlined in Table 1, with initial questions focusing on the participant’s previous work experience and the setting of the preregistration training placement, before moving on to asking what the participant had learned about “being a professional” on their placement. Discussions were then tailored according to both the participant’s responses and categories that had arisen from previous interviews. A professional transcriber who was not otherwise involved in the study transcribed all interviews. The transcripts were

Table 1. Topic Guide for Interviews Conducted With Master of Pharmacy Students After Completing Their Pre-registration Training Placement

Question
What work experience did you have in pharmacy before undertaking your early pre-registration training placement?
In what setting did you undertake your pre-registration training placement?
Can you tell me what you think you have learned from your placement about “being a professional”?
I am particularly interested in the subject of “professionalism” in students. Can you tell me what you understand by the term “professionalism”?

checked for accuracy by the primary researcher before coding began.

Recruitment for the study was voluntary, with inclusion criteria being that the participants were currently studying the MPharm five-year (intercalated) degree program and had recently successfully completed their first preregistration training placement. All eligible students (approximately 80-90 students per year) were invited by the primary researcher to participate via both email communication and a short presentation at the beginning of lectures. Participation was voluntary, confidential, and by informed consent; therefore, participants were self-selecting. Participants were made aware that they could withdraw themselves and their data from the study at any time. Before each interview was conducted, the interviewer reiterated the aim of the study and ethical issues relating to confidentiality and anonymity to the participant in a neutral way.²⁵

Grounded theory methodology uses specific methods of data analysis, primarily coding and the constant comparative method.²⁶ Initial, focused, and theoretical coding were used in this study.²⁴ Line-by-line coding was used to complete initial coding, although, where appropriate, separate incidents within lines were also coded. Microsoft Word and Excel were used to collate, store, and analyze the codes. The first interview was coded by all three investigators, then subsequent interviews were coded by the primary investigator. Regular meetings were held to discuss the emerging themes and to ensure a reflexive approach was employed throughout the study.

Focused codes are selective, conceptual codes that were then used to identify and categorize the most useful or frequent initial codes to to examine and analyze the data.²⁴

The constant comparative method fundamental to grounded theory was used to compare and contrast incidents within the same interview and between different interviews.²⁶ This helped to uncover different views of the same process and define the properties and dimensions of categories in order to move from descriptive coding to a more abstract level.

The final stage of coding was theoretical coding as codes that integrate focused codes to specify relationships between the codes move the researcher towards a grounded theory. Mind mapping was used in order to link categories with other categories.²⁴ In addition, the paradigm model was also used as an analytical tool to help clarify the emerging ideas, create and ensure richness of categories, and identify areas for further exploration.²⁷

Writing memos while coding to later help with analysis is a cornerstone of grounded theory methodology.^{24,26} Both memos and diagrams were used as methods to think about and analyze a topic.²⁸ These helped to achieve theoretical sampling by adding new aspects for exploration to the interview guide. In keeping with grounded theory methodology, data collection and analysis continued until saturation of the categories was achieved.²⁶

With the use of the above tools and the constant comparative method, the emerging categories were refined and the properties and dimensions of each were identified. The relationship of the core category to the other major categories was also continually explored and refined.

The substantive theory evolved over the course of the study and underwent many iterations. As a method of checking the findings, the final theory was discussed with a group of final year MPharm students who agreed with our results.²⁹

RESULTS

Fourteen students (11 female and three male) were interviewed. Of the 14 students, nine had undertaken their early preregistration training placement in community pharmacy and five in hospital pharmacy.

The final grounded theory (Figure 1) consisted of five major categories: realizing the reality of the profession; developing practical knowledge and skills; learning from mentors; developing a professional identity (the core category); and now a trainee professional.

The first three major categories were required for “developing a professional identity” to occur but were not the core process themselves. Therefore, this paper will

Figure 1. Grounded Theory Describing the Processes That Occurred When Pharmacy Students Undertook an Early Pre-registration Training Period

outline the core process, developing a professional identity, and consider the consequence of students becoming a “trainee professional.”

Without exception, participants discussed in depth how their placement had enabled them to think about the kind of pharmacist they wanted to be when they qualified. This was the culmination of the whole placement, the “point” of it, and was a process that began at the beginning of the preregistration training placement, and continued throughout the placement and upon return to university education. Participants acknowledged that the process was not yet complete and that their professional identity was not yet fully formed.

The process of developing a professional identity itself included four stages: reflection, selection of attributes, professional socialization, and perception of role. Individuals did not progress through the stages in a linear fashion; instead, they moved from one stage to any other and back again. This is illustrated with the use of double-headed arrows in Figure 1 and in representative quotes presented in Appendix 1.

For example, a participant might have undertaken a task that did not go well. They reflected on this and considered how one of their role models would have approached the task. They then decided which aspects of that approach they would emulate. The next time they approached the task they consciously considered these, gradually internalizing professional behaviors. At any time they may have reflected again on the situation, and/or compared it to what they thought they should do from the perspective of their current perception of the role of a pharmacist.

Stage one of developing a professional identity was reflection, and all participants described reflecting on

their experiences in some way. Some participants explained how they reflected comprehensively on errors they had made or they had seen others make. This reflection was sometimes explicit (quote 1). Others did not actually use the term “reflection,” but described the process of thinking about an event and considering what they would change. This was considered to be implicit reflection. This reflection on their placement continued even when back at university (quote 2).

Stage two was “selection of attributes,” which refers to the way participants decided what aspects of behavior they did or did not want to be part of their own professional identity. Many participants stated that they did this very consciously and explicitly throughout the process (quote 3). Others were less explicit but were clearly undertaking a process of considering the professional and unprofessional aspects of what they observed in the workplace (quote 4). Interestingly, all participants struggled to specify *how* they knew what was professional or unprofessional behavior. They felt it was a part of them and they “just knew.” They were unsure whether this could be taught (quote 5).

Stage three was “professional socialization.” We found that participants were professionally socialized to varying extents. Several participants described how they had seen at least one pharmacist who they considered to be at an “ideal” level of professionalism (quote 6). They also identified aspects of unprofessional behavior that they did not want to emulate (quote 7).

Most participants had taken on an increasing amount of responsibility throughout their placement. Because of their level of training, this was necessarily always under the supervision of a qualified pharmacist. There were

clear examples of participants demonstrating professional socialization (quote 8). For the most part, however, the extent of participants' professional socialization at this stage could only be gauged hypothetically, ie, by their descriptions of what they *would* do in a particular situation or what they hoped their reaction to a situation would be (quote 9).

One participant described how she had developed some unprofessional aspects of behavior she had seen while on placement, such as a lack of punctuality and dressing casually. Her explanation for this was that she mimicked the behavior of her role models (quote 10). While only this one participant gave examples of adopting potentially unprofessional attributes, this highlights the potentially negative aspects of professional socialization on work-based placements.

Stage four of the process was "perception of role," meaning that participants felt that the six-month placement helped them to understand the knowledge and skills they would need to be a pharmacist (quote 11). Students had less motivation to learn information covered in class that they felt they would not need to know in future practice. However, they were keen to learn information they believed they would need in future practice (quote 12).

Participants also felt they now knew in which sector of pharmacy they wanted to work in the future, and were convinced that this would not change. Only one participant voiced any uncertainty about their future. The others appeared totally confident that they had chosen their preferred sector and that it was the area in which they would spend their career.

As a consequence of "developing a professional identity," participants had a strong vision of the kind of pharmacist they wanted to be when qualified and felt they were "now a trainee professional." They felt an increased responsibility as students, and began to see themselves as somehow different from other students within the university. They also began to realize the value of the "Code of Conduct for pharmacy students" and to view themselves as trainee professionals.^{30,31} Participants described how their attitude as a student had become more professional as a result of completing their preregistration training placement (quote 13). Participants also noticed this change in some (but not all) of their peers on return to university (quote 14). This transition to a trainee professional often resulted in a change in participants' motivation to learn. They put more emphasis on learning while on their preregistration training placement and on return to university (quote 15).

As participants developed a vision of the kind of pharmacist they wanted to be, they also considered what

they needed to do to get themselves there. They began to internalize the professional norms and became highly motivated to learn. They did not want to become the unprofessional pharmacist with insufficient knowledge. In turn, their learning and change in attitude also fed back into the development of their professional identity.

DISCUSSION

Using grounded theory methods, "developing a professional identity" was the core process that occurred while these MPharm students were completing their early preregistration training placement. This comprised four stages: reflection, selection of attributes, professional socialization, and perception of their role. It resulted in participants perceiving that they had become a trainee professional, as opposed to a student, and their motivation to learn upon return to their studies increased. We note that students were not randomly selected; they were volunteers. Therefore, a motivation to volunteer may have been related to their views on professionalism both before and after their preregistration training placement. For example, only one student commented that they had displayed unprofessional behavior as a result of professional socialization. This finding may have been more prevalent in a larger group of students.

This university is unique in that it offers pre-registration training placements separated in both time and sector for home students. The impact of these placements had not previously been explored in either published or unpublished studies. Other studies have, however, explored the process of professional socialization in pharmacists undertaking a one-year pre-registration training placement, using different methods.^{21,22,32} The grounded theory developed in this study might represent a process that occurs for pharmacy trainees regardless of the setting or length of time of the placement, and further consideration of this would be beneficial.

In this study, "developing a professional identity" refers to the development of a future identity in a professional context: that of a student aspiring to be a pharmacist. Participants in this study were describing the kind of pharmacist they *wanted* to be in future, rather than the student pharmacist they *were* at the time of the interview. "Developing a professional identity" is therefore, an aspirational concept: a goal, and without longitudinal studies, it is not possible to know what kind of pharmacist the participants in this study will actually turn out to be. There is however, recent literature demonstrating that, in general, students who are connected with a view of their future selves are likely to be more motivated, have increased self-control and achieve better academic performance.³³ This aligns with the concept that, on return to

university participants' self-perception changed to that of trainee pharmacist rather than a pharmacy student.

Since the concept for this study was developed, there has been a surge in interest in professional identity, partly as a result of a Carnegie study in the United States that identified addressing professional identity formation explicitly in the medical curriculum as one of its four main areas for reform in order to minimize the likelihood of students rejecting the professional role.³⁴ There have been many studies in the area, with role modelling and reflection emerging as important aspects of developing a professional identity.³⁵⁻³⁷ Niemi also used terms such as evaluation, selection, and organization of self-perceptions to describe this process in medical students in Finland.³⁸ The similarities between the terms used in these studies and those that emerged in this paper (reflection, selection, professional socialization, and perception of role) are clear. If these skills can be actively and consistently developed in pharmacy students, both within the explicit and hidden curricula, it is likely to help them to develop an enhanced professional identity earlier in their career.

Adequate preparation and debriefing processes before and after any exposure to the pharmacy environment are vital to reduce the shock students experience when they are placed in their future professional setting for the first time and to enable students to respond positively when exposed to negative role models.³⁹ The selection of innovative teaching methods in these areas is important to enable students to understand these areas on an emotional level as well as on an intellectual level. Given the importance of reflection in development of professional identity, as found in this study and others, enhancing the teaching of reflective practice among pharmacy students is likely to increase their ability to take positive learning outcomes from exposure to poor placements and role models so they become committed developing or participating reflectors.^{38,40} Universities should also consider how they teach students to explicitly consider the attributes they hope to emulate, or not, in the role models they encounter both on placement and within the university environment. Most universities employ lecturer-practitioners (staff members who are both academics and practicing pharmacists) to serve as important role models for students. Other academics and mentors within schools of pharmacy should consider the way that they themselves are perceived as role models and be aware of the impact they may have on students' behaviors and attitudes. This may require additional training of both groups of staff members. Finally, since accepting increasing responsibility is important in the process of professional socialization, universities should consider ways to encourage

students to take increasing levels of responsibility both during the taught program and while on placement.^{21,41} This currently happens informally, but it is inconsistent. Some students will likely have fewer opportunities to take on additional responsibilities than others, which may then exacerbate poor professional socialization.

CONCLUSION

This study suggests that the change in students' behaviors, attitudes, and motivation to learn can be harnessed through early exposure to work-based placements and thus ensure they get the most benefit from their pharmacy studies. In this study, one factor identified was that students' receptiveness to more independent learning increased after a work-based placement. The findings of this study strongly support the use of an early preregistration training placement to develop pharmacy students' sense of professional identity. The study findings also suggest that if students can develop skills in reflection and selection of positive attributes they can learn valuable lessons, even from preregistration training placements that may not be ideal. Finally, the findings suggest benefits from having a curriculum focused on developing pharmacy students' and trainee pharmacists' ability to confidently navigate the process of developing a professional identity that may be more beneficial in the long term. As suggested, this involves the development of skills in reflection and selection of attributes as well as interventions to begin early professional socialization and an understanding of the role.

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Appendix 1. Representative Statements for Each of the Four Stages of a Pharmacy Student Developing a Professional Identity and Becoming a Trainee Professional

Stage	No.	Representative Statement
Reflection	1	Reflection comes in. Like how would you improve it, because we all make mistakes. We('re) all human at the end of the day so learning from your mistakes is quite important (participant 6, female, community).
	2	Since I got back to university as well [...] looking back on it. I mean to be honest I think, I picked up more things that were wrong or that I would change about it since I came back (participant 11, female, community).
Selection of attributes	3	I'd see the differences and which ones I prefer and I'd think oh right so I'll do it that way of yours [person A] but I'd do that way of yours [person B] (participant 14, female, community).
	4	It's like he's slacking from his duties [...] your basics are going to work on time, [...] having a good appearance. So that's your basics. If you can't do the basics right, how can you be trusted as a professional? (participant 1, female, hospital).
	5	I think largely it's something that you either know or you don't. You're either the sort of person who will do these things or you're the sort of person who won't do these things (participant 8, male, hospital).
Professional socialization	6	I saw her doing a really good job and there being good outcomes [...] I don't know, it's nice to have an example of it so you know what you're working towards (participant 7, female, hospital).
	7	They were doing MURs (medicines use reviews) [...] like if there was nobody else in the shop they were like so how's your meds? Alright? Yes. OK, right that's fine, it's a MUR (participant 5, female, community).
	8	In the out-patient department at the hospital [...] when patients are getting really frustrated, you make sure you're smiling, you're not showing that oh you're panicking, you can see a queue so you've got to really stay composed and like professional (participant 1, female, hospital).
	9	I would like to be the kind of person that takes responsibility for things rather than just passing it on to someone else (participant 11, female, community).
Perception of role	10	They're sort of our role models aren't they so we just sort of do follow what they do whether it's right or wrong (participant 2, female, hospital).
	11	I think now we realize what we need to know and what's expected of us (participant 2, female, hospital).
	12	I think it is more significant [...] for example, in the clinical skills module we're taught about the side effects of drugs and about specific drugs [...] it's information you always need to know (participant 4, female, community).
Now a trainee professional	13	I feel like you take it a lot more like professionally. Like it feels a lot more like a job and you're working towards a career rather than you're just coming to uni (participant 11, female, community).
	14	I think you do see a bit more maturity [...] a bit more of a seriousness about them (participant 9, male, community).
	15	I've got to the point where if I'm interested in something or I'm a bit confused about something I'll make an effort to look it up (participant 5, female, community).