Learning Through Boundary Crossing: Professional Identity Formation of Pharmacists Transitioning to General Practice in the Netherlands

Ankie C.M. Hazen, PhD, Esther de Groot, PhD, Antoinette A. de Bont, PhD, Simone de Vocht, MSc, Johan J. de Gier, PhD, Marcel L. Bouvy, PhD, Niek J. de Wit, MD, PhD, and Dorien L.M. Zwart, MD, PhD

Abstract

Purpose
To unravel boundary crossing as it relates to professional identity formation in pharmacists transitioning from a community pharmacy to working as nondispensing clinical pharmacists in general practice, with the aim of optimizing their education.

Method
This was a multiple-case study, including two-stage interviews, peer feedback, and individual reflection, that collected data in 2014–2016 from eight clinical pharmacists working in general practice in the Netherlands. These pharmacists acted—without a workplace role model—as pharmaceutical care providers in general practices during a 15-month training program. In within-case and cross-case analysis, data were collected regarding pharmacists' role development in practice and perceptions of learning processes, and examined through the lens of professional identity formation and boundary crossing.

Results
Analysis of data collected during and after the training program demonstrated that the clinical pharmacists who applied the learning mechanisms of reflection and transformation developed a patient-care-oriented professional identity. Some clinical pharmacists, who learned mainly through the mechanism of identification, did not integrate the new patient-care-oriented role into their professional identity. They felt that their workplace provided limited opportunities for reflection and transformation. Learning with peers on formal training days was seen as highly valuable for professional identity formation; it counterbalanced the lack of a role model in the workplace.

Conclusions
Professional identity formation in the transition from community pharmacist to clinical pharmacist in general practice benefited from reflective, on-the-job training. This permitted transformative, boundary-crossing learning with peers and supported professional identity formation oriented to providing practice-based pharmaceutical care.

Professional identity development is essential in the education of health professionals.[1] A strong professional identity empowers individuals to act confidently[2] and is associated with career commitment and workplace satisfaction.[2,3] The development of a professional identity should be an educational goal for the health professions, a view that is reflected by the recommendation to amend Miller's learning pyramid, which entails progression from "knowing," "showing," to "doing," with "being" as the highest level of aspiration.[1,4,5] However, higher education programs often lack a clearly articulated understanding of the intended professional identity formation to inform educational approaches.[1]

Professional identity formation entails the development of an individual with internalized values and norms of the profession, resulting in "thinking, acting, and feeling like a physician."[4(p1447)] It relates to what the professional finds important and is enthusiastic or gets upset about.[4,5] Formation of identities is a process in which three aspects are relevant. First, the personal identities that are developed through life are the foundation on which a professional identity is constructed. Second, friends, family, gender, culture, and context affect individuals' identity formation. Third, identities are formative and susceptible to influences that steer development into integrated and consistently applied professional identities.[4] Thus, identities are not fixed or static, but transformational and co-constructed in interaction.[6,7]

Role modeling has been identified as a key facilitator for professional identity formation.[3,8–11] Professional identity formation of professionals who are trained in settings without role models hampers opportunities for identity matching. Such was the case in this study, where clinical pharmacists were pioneers in providing general-practice-based pharmaceutical care. The clinical pharmacists had to develop new roles with a job description that was well defined on paper, but without the presence of a role model in their daily practice. During the study period, these clinical pharmacists were no longer involved in dispensing of medication—the traditional role of pharmacists—but instead provided patient care in general practice by taking integral responsibility for the patient's pharmacotherapy. In this new role, pharmacists can contribute favorably to clinical outcomes in primary care.[12–14] Both assumption of new tasks and omission of previous core tasks are to be considered a reprofessionalization of the pharmacy profession,[15–17] which will evidently involve (re)shaping of the

Please see the end of this article for information about the authors.

Correspondence should be addressed to Ankie C.M. Hazen, Universiteitsweg 100 3584 CG Utrecht, Huispost nr. STR 6.131 PO Box 85500 3508 GA Utrecht, the Netherlands; telephone: 0031624697683; e-mail: A.c.m.hazen-2@umcutrecht.nl.

Acad Med. 2018;93:1531–1538.
First published online February 20, 2018
doi: 10.1097/ACM.0000000000002180
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Supplemental digital content for this article is available at http://links.lww.com/ACADMED/A530.

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professional identity of those pharmacists thus engaged.[18]

In this study, we evaluated the learning process of 10 traditionally trained pharmacists in the Netherlands who participated in a 15-month training program, which alternated between formal training in the classroom and workplace learning. The design of our training program provided opportunities for learning across boundaries. Boundary crossing is one of the theoretical lenses suitable to study interprofessional learning[19] and finds its origin in the work of Akkerman et al[20] about interprofessional teams. The transition from community pharmacy to general practice involves learning through boundary crossing so that professionals learn how to make experiences meaningful.[21] Boundaries can be perceived as barriers, leading to a discontinuity in (inter)action, but also as opportunities for learning and drivers for change and development in the ongoing process of professional identity formation.[22] The framework of boundary crossing helps to focus on what learning can occur at boundaries between professionals with different cultures and epistemologies. Learning through boundary crossing occurs also when the professional works together with other professionals who differ in norms, views, beliefs, and manners.[23] Moreover, as the effects of boundary crossing are likely to be experienced most consciously by novice learners, this framework is highly suitable to study professional identity formation in newly emerging professionals.[24]

Hence, we unraveled professional identity formation by adopting the four learning mechanisms from the conceptual framework of boundary crossing[22]: Identification is the awareness of the differences between the current practice of general practitioners (GPs) and those of prescribing community pharmacists and can lead to defining the new practice of the nonprescribing clinical pharmacist in primary care. The learning potential of reflection resides in the possibility to learn through the eyes of others and can lead to an expanded set of perspectives or adjusted behavior. Transformation is a fundamental change in the way of thinking or acting and can result in a new and integrated practice. Coordination is aimed at aligning with the GP and can result in the development of procedures and routines, such as adjusted communication between the clinical pharmacist and the GP.

Our study was conducted in a specific group of boundary-crossing learners with the aim to add to our understanding of professional identity formation and to inform those who are involved in the design of (workplace-based) curricula. In addition, changes in the Dutch health care system have led to many new roles, such as physician assistant and nurse practitioner,[25] who also need to work in settings without existing role models. Better understanding of how to integrate new roles into existing professional identities in such settings may enhance the performance of new professionals.[26]

Method

Study design

Because our research was exploratory and observational, we took a multiple-case study approach,[27] which allowed us to assess each clinical pharmacist in great detail. Our study followed an adapted grounded theory approach; we applied many research strategies that are customary to that framework. We were not able to analyze in an iterative fashion because this study was the final study in a larger project, aiming at providing evidence on the safety and effectiveness of nondispensing clinical pharmacists in general practice. All data were collected during the training program and analyzed afterward.

At first, the purpose of this study was to unravel and understand the learning of a pioneering group of pharmacists to optimize training. In the exploratory phase of our study, we read and reread the initial data sources (see data collection), allowing for findings to emerge from the data. We noticed that our participants experienced a change in their professional way of acting and feeling; hence, the idea of applying the lens of professional identity formation came to the fore. We were guided by the literature on professional identity formation, the literature on pharmacists' roles and professional identity, and work about the importance of the patient-centered approach of pharmaceutical care as sensitizing concepts.[2,4,7,16,28,29] As we expected the dominance of the themes on professional identity formation to be fundamental to our further study, we decided to conduct an extra round of interviews with a focus on professional identity formation. With this step of data triangulation we gained more in-depth information about the concept of professional identity formation and strengthened the credibility and transferability of the findings of this study.

We obtained ethical approval from the Ethical Review Board of the Netherlands Association for Medical Education, and all participants provided their written consent.

Setting and participants

The study took place during a new clinical pharmacy training program designed as a mix of workplace learning and formal classroom sessions.[30] The dual training program was developed to prepare pharmacists for their new role in general practice, which requires the acquisition of specific competencies and skills in addition to knowledge. These competencies were based on the CanMeds framework and focused on clinical reasoning, interprofessional collaboration, and patient communication. Also, the program supported the clinical pharmacists in the process of role development and integration in the general practice. Ten clinical pharmacists (trainees) participated in the 15-month program. Because one pharmacist withdrew from the program and one trainee was also the principal researcher of this study, we included data from only eight participants. These participants, two male and six female, aged 24 to 39 years, had previously worked in community pharmacy for 1 to 12 years. During the training program, they all worked in one general practice, in close collaboration with the GPs of that practice, and took integral responsibility for medication therapy management. They were the first fully integrated primary care clinical pharmacists in the Netherlands.

Data collection

The research team collected data throughout the training program. Following the organizing principles of the multiple-case study, we collected four data sources for each participant: a transcript of a semistructured interview, conducted within the first three

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months of the program (March–May 2014); reports of weekly peer feedback sessions (PFS report); individual reports reflecting on participants' competency development in months 4, 10, and 15 of the program; and a transcript of a semistructured interview conducted one year after the program ended (February–May 2016).

Both face-to-face interviews used a semistructured format to allow for open exploration of predefined themes.[31] (See Supplemental Digital Appendices 1 and 2 for the interview guides, available at http://links.lww.com/ACADMED/A530.) The interviews lasted 45 to 60 minutes. The first round of interviews was conducted by a physician or a sixth-year medical student (L.B., T.L.). We asked participants to reflect on their role development in practice and perceptions of their learning processes (e.g., during the formal training days).

The first round of interviews was evaluative, aimed at improving the design of the training program. In the second round, we were looking for in-depth knowledge about professional identity formation, and therefore the psychologist–supervisor of the training group (S.V.), who had been involved in both supervising the weekly peer sessions and consultation training, conducted the interviews. An experienced interviewer, the psychologist had a well-established relationship with the participants and created a safe environment that permitted thorough exploration.

We used video-stimulated recall to facilitate our reflection on the topics.[32] For each participant, four to eight video recordings of patient case discussions with their GP were available. Two researchers (S.V., E.d.G.) independently selected discussion fragments from these video recordings throughout the training period. The selected fragments contained boundary-crossing conversations about, for example, conflicting perspectives on patient treatment, task reallocation, and changing responsibilities. The final selection of fragments was made in consensus with a third researcher (A.H.). On average, three video fragments per participant were played during each participant's second interview, which were audiotaped and transcribed verbatim.

Data analysis

Investigators from different disciplines (pharmaceutical, educational, and medical sciences) analyzed the data (A.H., E.d.G., D.Z.). We coded the data within the analytical framework of professional identity and boundary crossing,[8,21–23,33] allowing both inductive and deductive approaches, and tailored descriptions to the context. Boundary crossing can take place at the institutional, interpersonal, or intrapersonal level. In all these situations, four predefined learning mechanisms can occur as a consequence of experiencing or crossing the boundary.[22] Hence, we used a deductive approach to identify the participant's learning by using codes for the four learning mechanisms: "identification," "coordination," "reflection," and "transformation" (see Table 1). We explored how boundary-crossing experiences explained the participants' professional identity formation.

Our interest in professional identity formation was not fueled by a deductive logic but, rather, by the dominance of this concept that emerged from the data. After (re)reading the data, we identified episodes in which the participants used value-laden terms that reflected how they felt about their experiences in general practice. We used codes to organize the data.[34] The codes reflected the integrated roles of the clinical pharmacists that qualified their new professional identity—namely, "anticipator," "broker," "clinician," "expert," and "professional" (see Table 2). Fragments were coded when the participants mentioned the

Table 1

Boundary-Crossing Learning Mechanisms: Definitions and Illustrative Quotes, From a Study of Eight Transitioning Clinical Pharmacists' Professional Identity Formation in the Netherlands[a]

Mechanism	Definition	Illustrative quote[b]
Identification	The participant defines and is aware of differences between their practice and the practice of the GP or community pharmacist, which leads to the demarcation of practices and legitimating coexistence.	"My point was that no one should be afraid that a clinical pharmacist would take on the GP's job, since a clinical pharmacist would not feel comfortable in that role." (CP1, I2)
Coordination	The participant describes how to overcome the boundary and align themself with the GP. For example, by talking about the connections and trying to improve the structure of interprofessional collaboration, setting procedures or routines to implement the new activities of the clinical pharmacist.	"I changed my communication with GPs. The lines are short, and I just walk in for a short consultation about a patient. Or I make an appointment in our shared agenda. This seems to work." (CP4, I2)
Reflection	The participant explicates a new, broader set of views by including the perspectives of the GPs and community pharmacists.	"GPs look at it differently. I was used to focusing on the medication side of things while they think mainly about the diagnosis, the patient's complaint. So my way of thinking really changed. I began thinking in terms of the complaint and tried to help patients like that. And since I had daily talks with the GPs, I heard their way of reasoning. That was how I learned clinical reasoning." (CP8, I2)
Transformation	The participant describes a fundamental change in their way of thinking or acting and develops a clear vision of the new practice, which then gets embedded in the general practice.	"The fact that I am a real part of the team, that I know how to talk with patients and how to coach them, that I've found a working mode for general practice." (CP8, I2)

Abbreviations: GP indicates general practitioner; CP, clinical pharmacist.
[a]Based on Akkerman and Bakker.[22]
[b]Parentheses indicate clinical pharmacist and data source (interview number or report).

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Table 2

Professional Identity: Definitions and Illustrative Quotes, From a Study of Eight Transitioning Clinical Pharmacists' Professional Identity Formation in the Netherlands

Professional identity	Definition	Illustrative quote[a]
Clinician	Patient-centeredness; providing clinical care to patients, or being concerned about the impact of medication on a patient's health.	"The most happy days in general practice are when I can really help a patient." (CP8, PFS report)
Expert	Being knowledgeable about clinical pharmacology and pharmacotherapy.	"I am showing off my expertise, sort of taking charge of my position—this is my domain, this is what I know about, so here my view counts for something." (CP5, I2)
Professional	Feeling responsible for patients' pharmacotherapy and capable of making decisions independently.	"[Becoming aware of the GP's domain and my own domain] went hand in hand with the increase in responsibility, or at least the increase in responsibility that I felt. As a pharmacist you are always responsible for the patient, even when only dispensing. But during the study we made recommendations for pharmacotherapy, we didn't just suggest it to the GP but carried it out too." (CP7, I2)
Anticipator	Being proactive, which involves signaling and anticipating medication safety problems that might otherwise go unnoticed or might lead to harm in the future.	"A lot of people have medication-related problems which they are not aware of. They often do not visit the GP. So I proactively see them. And that's what I experience now, that when I proactively visits them, I can help them." (CP8, I1)
Broker	Being an intermediary to improve patient care or care processes—for example, between GP and community pharmacist.	"Community pharmacists also acknowledge the added value of my work. Our tasks are extensions and complete each other. I try to build bridges and improve the collaboration between general practice and community pharmacy. An essential part of that is learning about and understanding each other's work." (CP3, competency report)

Abbreviations: PFS indicates peer feedback session; CP, clinical pharmacist; GP, general practitioner.
[a]Parentheses indicate clinical pharmacist number and data source (interview number or report).

importance of and commitment to being an anticipator, broker, clinician, expert, or professional, rather than performing a specific role.

Two researchers (A.H., E.d.G.), each with a different professional background, independently coded two transcripts of the second round of interviews. An analytical framework was developed in iterative meetings with these two researchers. Codes were further compared and defined by the input of a third researcher (D.Z.). Given the likely influence of the training program on professional identity formation of the participants, we also coded the data for perceptions of both workplace and training program.

One researcher (A.H.) applied the analytical framework to the entire data set using a qualitative data analysis software program (NVivo 11.0, QSR International, Victoria, Australia). To analyze the relation between professional identity formation and boundary crossing, we performed within-case and cross-case synthesis.[35] To do so, we organized the data for each participant and for each theme in a framework matrix. After comparing within and across the cases, we grouped the participants with similar patterns and characteristics. In this grouping process, we subsumed particular quotes into the general conceptual idea that some participants had clearer role internalization than others. We used counting[36] to make generalizations by taking into account how often specific learning situations occurred and how consistently the participants mentioned the importance of certain new roles. To unravel patterns, we specifically looked at the density of the coding related to both professional identity formation and boundary crossing.

We maintained a detailed audit trail, including notes from team meetings, any adjustments to coding definitions, and serial versions of the coded data. An external evaluator (S.M.) assessed the quality of the research by auditing the visibility, comprehensibility, and acceptability of the data and decisions made during the process.[37]

Results

We collected a total of 45 data sources across both interviews, PFS reports, and competency reports. From these data sources, we coded 1,117 data points: phrases or sentences referring to professional identity (418 data points), boundary-crossing learning mechanisms (355 data points), perceptions of the workplace (226 data points), and perceptions of the training days (118 data points). Tables 1 and 2 provide an overview of the definitions used, with sample quotations. Below, we describe the themes and provide further representative extracts. To each quote, we added an indicator for each clinical pharmacist (CP1–CP8) and followed this by denoting the data source (Interview 1 [I1], Interview 2 [I2], competency report, or PFS report).

Boundary-crossing learning to integrate roles into professional identity

We found that five participants (out of eight) who were able to learn through reflection and transformation developed and reshaped their professional identity. Becoming aware of the GP's perspective enabled the clinical pharmacists to develop their clinical reasoning and take on a patient-centered approach (clinician), to efficiently apply knowledge about pharmacotherapy and pharmacology (expert), and to take responsibility for the pharmacotherapy

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of the individual patient (professional). They seemed to have integrated their new clinical role in such way that it became a structural part of their thinking and reasoning. We found that these participants strongly emphasized being patient centered. As one participant said:

> Patient consultations are so gratifying. Like [one I had] yesterday [with] a woman who felt misunderstood by her family, friends, and caregivers. She wanted to cut down her opiate use. I could help her by asking questions and giving advice. That made her so happy. It was great to see. (CP8, I1)

Two of these five clinical pharmacists who were able to learn through reflection and transformation also developed the professional identity of a broker, expressed by their drive to improve patient care through bridging the differences between the general practice and community pharmacy. One pharmacist developed the professional identity of an anticipator because being proactive was considered "an essential part of my professional identity as a clinical pharmacist" (CP5, I2).

The learning potential of shifting from the community pharmacy context to the general practice context is clearly voiced by one of the clinical pharmacists:

> We never learned or saw what a drug actually does to a patient because the GP always did that part. (CP3, I2)

For one participant, working in general practice transformed her as a professional: "I'm really not like you [community pharmacists] anymore" (CP3, I1). For example, relating how she had discussed a patient's case with a community pharmacist, she explained:

> She [the community pharmacist] totally ignored the patient's demand for care. I mean, you're the one dealing with the patient, so how can you give that advice? (CP3, PFS report)

This illustrates her profound change into becoming a patient-care-oriented professional.

Role playing

The other three participants learned mainly through identification—merely defining the differences between their personal context and the context of the GP or community pharmacist—and did not demonstrate learning through reflection or transformation. Our data suggest that these three did not develop a professional identity as a clinician, but mainly acted the part. For example, one pharmacist described patient encounters in clinical practice as follows:

> Patient consultations take a long time, they're exhausting and don't lead to concrete action. (CP1, PFS report)

This pharmacist added:

> Patient care is not what drives me. I feel that it compromises the quality of my work. I'm less enthusiastic, less connected to the group [peers].… However, last week was fine. I could do a lot of minor medication interventions. That felt good. (CP4, PFS report)

The focus seemed to be on *doing* (i.e., changing medication in individual patients) rather than on *being* (i.e., behavior arising from a sincere natural interest in the individual patient).

Role playing vs. professional identity: Perception of the workplace

The three participants who experienced limited learning potential across the boundaries in terms of reflection and transformation and mainly acted their roles perceived their workplace as unsupportive and had problems demarcating their professional domains and the level of responsibility and independency. One participant explained:

> The GP is also actively engaged in pharmacotherapy. He likes to be in control. I find that difficult. (CP2, PFS report)

This pharmacist felt that the GP did not want to share the responsibility for the patients' pharmacotherapy and held the opinion that the pharmacist was "overstepping her authority" (CP4, PFS report). Consequently, the pharmacist tried to align better with the GP by discussing this issue and making arrangements to constructively improve collaboration. Given that the clinical pharmacist focused on coordination during her work in the general practice, this seemed to limit the learning potential of crossing the boundary in terms of reflection and transformation.

The five clinical pharmacists with clear (re)shaping of their professional identity experienced their workplace as supportive, and potential interference from the domains of either profession did not lead to significant conflict. They felt that the GPs they worked with were open to critical reflection and dialogue. Therefore, they did not use coordination to solve conflicts but, rather, to structurally improve the interprofessional collaboration, applying patient-centered communication:

> An important point was to formulate pharmacotherapeutic advice for the GP. I've noticed that the consultations with the GP often provide a good structure for this. Sometimes, the GP appreciates additional patient information. I try to give this after I have given the advice, and then I repeat the recommendation. (CP3, competency report)

They also coordinated to create procedures and routines that clarify tasks and responsibilities:

> So I started a project to monitor and—if possible—stop the chronic use of gastroprotective medication. I deliberately screened the first eligible patients together with the GP to figure out my tasks and responsibilities in this project. First of all, I selected the patient, and then we discussed who would do the patient consultations. And [then I asked the GP] if I do it, shall I reduce the dosage or will you do it? And shall I do the follow-up, or will you? (CP5, I2)

Role playing vs. professional identity: Perception of the formal training

All participants regarded formal training—a combination of peer feedback sessions and training in consultations and clinical reasoning within their group of peers—as relevant to their professional identity formation, particularly in relation to their identity as a professional clinician. One clinical pharmacist stated,

> If I hadn't had the training and you'd put me in this general practice here as a community pharmacist, I wouldn't have been any good at establishing the relationship you need with patients to contribute to their pharmacotherapy. (CP5, I2)

Concerning the identity of a professional, another clinical pharmacist explained:

> The biggest development was [learning] to cope with feeling responsible for the patient. [I think] Reflection in the peer feedback sessions was a prerequisite to learning. It's important to focus on

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> certain processes that you go through, and the feedback sessions forced you to put them into words. (CP7, I2)

Because the clinical pharmacists were pioneers in the provision of pharmaceutical care in Dutch general practices, they had no role model to follow as their example. One participant said:

> What I find hard is that you have come up with it all on your own, you really have to be your own driving force.… I find that hard to do alone. (CP7, PFS report)

They felt that the formal training days compensated for the lack of a role model. One participant stated:

> The training was a great help to get me through the day. It gave me the handhold I needed to do things. And if I hadn't had that, then I would have felt that I had to do it all by myself. Besides, you wouldn't have heard things from your colleagues [other clinical pharmacists], and yes, I'd have found that really hard. I don't know what would have happened then. (CP6, I1)

The cross-case analysis led us to conclude that the impact of the peer learning during formal training days on professional identity formation is of great value, particularly for participants who encountered a less supportive workplace. When the opportunity to learn across boundaries in the workplace is perceived to be limited, peer learning seems essential for learning about professional identity.

Discussion

Analyzing the experience of participants in a training program for general-practice-based clinical pharmacists in the Netherlands, we identified boundary-crossing learning mechanisms necessary for professional identity formation. We found that pharmacists who were able to learn through reflection and transformation—both in the workplace and in their peer group—developed a multi-dimensional professional identity that included such aspects as being a clinician, an expert, a professional, a broker, and an anticipator. Pharmacists who learned mainly through identification and coordination, attempting to overcome frictions, developed less of a transformation in their professional identity and performed the role of a clinician.

All participating pharmacists had to adopt the new clinical role and learn how to incorporate it in their identity. Through learning at the boundary, in interaction with GPs, they developed into patient-centered clinical care providers (clinician), anticipated on medication-related safety issues (anticipator), took responsibility for the patient's pharmacotherapy (professional), and built bridges between general practice and community pharmacy (broker). They were all knowledgeable about clinical pharmacology and pharmacotherapy (expert). Some clinical pharmacists were able to incorporate the new roles into their identity; others were not. Incorporating a new role into identity is challenging[38] as professionals are emotionally attached to a role, seeing it as "part of who they are."[39,40] Our data suggest that some participants became more emotionally attached to their new role and were better able to integrate it in their professional identity.

A possible explanation for the degree of role integration and professional identity formation is the direct work environment.[5] The workplace can be a constraining factor when it is perceived as competitive or lacking in trust, or when the new roles for the clinical pharmacists are not valued or accepted. A general practice that values and accepts the new roles for the clinical pharmacist probably enhances the process of role incorporation.[38] Our study shows that trainees experienced difficulties in role integration if they perceived their workplace as unsupportive and there were disagreements about the demarcations of their professional domain. The clinical pharmacists who did not manage to cope with these disagreements more or less role-played in their daily practice. However, those who were able to align with the GP to overcome the professional boundaries (learning mechanism coordination) began working from a new professional identity. An explanation for differences in role integration could be found in "the way in which individuals exercise their agency in the workplace."[41(p241)] A further study would be necessary to delve into this explanation.

A highly relevant aspect of the study concerns learning in settings without a role model. Because the wider literature on professional identity formation of physicians highlights the importance of socialization and role modeling, we expected that it could be challenging for clinical pharmacists to develop their professional identity in general practice without a role model present.[9–11,42] Innovative settings with no role models present limited opportunities for learning through socialization. Our findings suggest that the professional identity of the participating clinical pharmacists developed in part through socialization with GPs, most notably the aspect of being a clinician. However, to develop a new multidimensional identity, peer feedback and reflective discussions with peers are also important. The learning mechanisms of boundary crossing stress the horizontal dimension of learning occurring in groups of peers and might be specifically relevant to participants who experience their workplace as unsupportive.[43] In the current era of health care transformation and emerging new roles, an experiential training design that allows professionals to learn in dialogue with peers and other health care professionals may support the learning process, counterbalancing the absence of a role model.

We also looked into the concept of identity dissonance, wherein "integrating new professional identities is an easy process for people whose personal identities are consonant with their new professional role, but traumatic for those whose personal identities are dissonant with it."[2(p42)] Young and relatively unexperienced participants were perhaps more likely to swiftly acquire an integrated identity. Participants with extensive previous work experience and opportunities for socialization with role models in community pharmacy may have had a more established identity reflecting the traditional role of a community pharmacist. Those participants may have experienced more inner conflict to adapt to the new professional identity of clinical pharmaceutical care provider. In our study, the participants varied strongly in amount of work experience. In contrast to what might be expected from the concept of identity dissonance, the participants with more experience in community pharmacy did not have more problems in adopting their new role compared with those who had recently obtained their pharmacy degree. This indicates that identity dissonance is not a fruitful direction for future research. For

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future (narrative) research, the process model that Ibarra[44] developed on macro role transitions offers opportunities on new role identities of—in our case—clinical pharmacists. The foundation of this conceptual framework is role prototyping and identity matching by observing role models.[45] Therefore, we think that this model will be particularly useful when clinical pharmacists in primary care practice in the Netherlands are more customary.

This study has limitations. During the interviews, we asked participants about their perspectives and behavior in specific situations and their related professional identity formation. The concept of professional identity might be prone to different interpretations between the participants. Nevertheless, in the safe interview environment the participants were able to ask questions in return to clarify the concept if needed. The principal researcher (A.H.) participated in the training program and had previous work experience in community pharmacy. To prevent us from projecting our own experiences on the interpretation of the data, we had regular meetings with the study team and openly discussed and challenged our researchers' perspectives and assumptions. Furthermore, the perspective of the principal researcher contributed to practice-relevant interpretations of the findings. Another limitation is the duration of the training and, hence, the period of data collection. Identities are not fixed or static, nor are they a single construct.[4,6] They are subject to a constant process of transformation.[46] If we would have been able to follow the "role-playing" clinical pharmacists for a longer period, they may have formed their identity in due course. In other words, the (re)shaping of their professional identity may occur at a different pace. Finally, our study is strongly bound to the Dutch context, where clinical pharmacists working in general practice is a new profession.

In conclusion, this study unravels the learning mechanisms involved in the professional identity formation of health care professionals working in settings without a role model. These clinical pharmacists, who made the transition from community pharmacy to general practice, need to develop a professional identity as a patient-centered, clinical pharmaceutical care provider. A training program that provides opportunities for reflective and transformative learning—both in the workplace and among peers—contributes to professional identity formation.

Acknowledgments: The authors are extremely thankful to all eight participating clinical pharmacists who shared their time and experiences with the research team throughout and during the follow-up of the training program. The authors also thank Ms. L. Boelman and Ms. T. Lagraauw for conducting the first round of interviews, Ms. S. Mol for the audit, and Ms. Helmich for providing valuable feedback on earlier versions of this manuscript.

Funding/Support: The POINT project is funded by The Netherlands Organization for Health Research and Development (ZonMW). Implementation of nondispensing clinical pharmacists was supported by the Dutch health insurance company Agis/Achmea. Funding organizations were not involved in the development or evaluation of the educational program or in the development of this manuscript.

Other disclosures: None reported.

Ethical approval: Ethical approval has been granted by the Ethical Review Board of the Netherlands Association for Medical Education (NVMO-ERB), March 15, 2016, reference number 662.

A.C.M. Hazen is clinical pharmacist and researcher, Department of General Practice, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht University, Utrecht, the Netherlands.

E. de Groot is assistant professor in the learning sciences, Department of General Practice, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht University, Utrecht, the Netherlands.

A.A. de Bont is professor of sociology of innovation in health care, Institute of Health Policy and Management, Erasmus University Rotterdam, Rotterdam, the Netherlands.

S. de Vocht is psychologist–supervisor, Department of General Practice, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht University, Utrecht, the Netherlands.

J.J. de Gier is professor of pharmaceutical care, Department of Pharmacotherapy, Epidemiology and Economics, University of Groningen, Groningen, the Netherlands.

M.L. Bouvy is professor of pharmaceutical care, Department of Pharmaceutical Sciences, Utrecht University, Utrecht, the Netherlands.

N.J. de Wit is professor of general practice, Department of General Practice, Julius Centre for Health Sciences and Primary Care, University Medical Centre Utrecht, Utrecht University, Utrecht, the Netherlands.

D.L.M. Zwart is associate professor, Department of General Practice, Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, Utrecht University, Utrecht, the Netherlands.

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