Development and evaluation of a workplace-based preceptor training course for pharmacy practitioners

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ABSTRACT

Background: There has been limited research about preceptor training programs that include coaching, experiential practice or development of preceptor coaching capacity. We describe the development and evaluation of a workplace preceptor training course for pharmacists and pharmacy technicians within a large regional health authority.

Methods: The instructional format was self-study readings and interactive seminars followed by structured practical experience plus feedback from a preceptor coach. During the structured practical experience, each participant served as a preceptor for a student or new staff member. Course evaluations and qualitative interviews were used to evaluate utility and perceived value among participants. Interview transcripts were analyzed using qualitative description and themes were aggregated; illustrative quotes are presented.

Results: Since 2006, a total of 40 pharmacists and technicians have participated in the course and interviews were conducted with 14 of these participants. Aspects of the course that interview participants found to be particularly useful included receiving feedback from a coach, implementing a lesson plan and identifying and using different learning and teaching styles. Some participants described changes in attitudes or behaviours toward new employees or students, the use of new learning styles and changes in focus and approach to being a preceptor.

Discussion: This unique course could be applied in other workplaces where pharmacy staff members help to deliver experiential education programs. The delivery format was appropriate for a mixed group of pharmacist and technician participants.

Conclusion: A preceptor training course of readings, seminars and structured practical experience with feedback from a coach resulted in satisfaction with learning experiences and evidence of attitudinal and behavioural change up to 3 years after the course. *Can Pharm J* 2012;145:231-236.

Introduction

Preceptorship is the process by which an experienced practitioner provides coaching, facilitation, direct instruction and role modelling within a collegial relationship with a novice practitioner, while continuing to perform some or all of the tasks associated with the position.¹ It is the basis of most experiential instruction for pharmacists, pharmacy technicians and students in educational and workplace settings. Changes in pharmacy education have increased the demand for experiential education sites and preceptors

with sufficient skill to deliver experiential learning experiences.² Canadian pharmacy professional associations and workplaces are promoting excellence in preceptor skills as a means to improve retention of staff, enhance national capacity for training new professionals and encourage lifelong learning in pharmacy.²

To be proficient preceptors, individuals must effectively integrate direct instruction, coaching, facilitation and role-modelling skills with the personal attributes that underlie being a strong preceptor and must also demonstrate skill in

We pursued this research because we believed that improving preceptorship skills could reduce preceptor stress, minimize time required to address preceptor-learner conflict or performance issues arising from sub-optimal initial training, and enable staff members to pursue excellence in their interactions with students and new staff.

Nous nous sommes lancés dans cette recherche parce que nous croyions que le fait d'améliorer les capacités des précepteurs pourrait réduire leur stress, minimiser le temps nécessaire pour régler les conflits précepteur-apprenant ou les problèmes de rendement liés à une formation initiale sous-optimale, et permettre aux membres du personnel de viser l'excellence dans leurs interactions avec les étudiants et le nouveau personnel.

- We designed a workplace preceptor training course to help pharmacists and pharmacy technicians develop and apply skills and knowledge related to being a preceptor, trainer or clinical teacher.
- Participants valued getting feedback from a preceptor coach, making and implementing a lesson plan and identifying and using different learning and teaching styles.
- Implementing this rotation elsewhere will require access to preceptor teaching and learning tools and the operating resources, scheduling flexibility and political will to make participants available and to develop the expertise of the course coordinator and the preceptor coaches.

planning, coordination, collaboration and evaluation.^{1,3} Text and video preceptor training resources are available and several programs have been described in the literature. However, few of these programs include preceptor coaching or a structured practical experience (SPE) of significant duration,^{4,5} and even fewer have been evaluated using measures other than satisfaction.^{4,5} Finally, no programs have been described in which the course itself forms the basis for training preceptor coaches.

The purpose of this project was to develop and evaluate a voluntary workplace-based preceptor training course for pharmacists and pharmacy technicians within a large urban regional health authority. We describe development of the course and evaluation of its utility and perceived value among participants.

Methods

Setting

This project was conducted at the Winnipeg Regional Health Authority (WRHA), a publicly funded organization that provides acute, long-term and community health services for about 800,000 people. Pharmacy personnel within the WRHA Regional Pharmacy Program consist of 150 full-time equivalent (FTE) unionized pharmacists and the same number of FTE technicians, who provide pharmacy services in 8 hospitals with a total of about 2000 beds.

Course design

Development of the preceptor training course began with a literature review, which was followed by instructional analysis; analysis of organizational, learner and instructor characteristics, resources and constraints; and development of statements of instructional goals and learning objectives. Course design was guided by Lave and Wenger's situated learning theory⁶ and the cognitive apprenticeship

instructional strategy outlined by Collins et al.⁷ These constructivist instructional theories ground learning in real-life situations in the real-life work setting.^{6,7} Learners are part of the experience, "constructing" their knowledge and behaviours with support from expert role models (coaches) within the relevant social environment and they are encouraged to explore, reflect upon and share their understanding as it develops.^{6,7} Learning objectives and performance criteria for the SPE component of the preceptor training course are listed in Appendix 1.

By the end of the course, participants were expected to have developed preceptor skills and knowledge and to have applied these skills and knowledge by serving as preceptor to a learner. Application of skills and knowledge encompassed how to be a preceptor, trainer or clinical teacher, with a focus on modelling and coaching, communication, giving effective feedback and dealing with difficult issues in learning situations.

Educational environment

The course was voluntary for pharmacist and technician staff in the WRHA Regional Pharmacy Program. Enrolment was not limited in number and a session of the course was scheduled as soon as at least 2 participants were available. Participation was invited through workplace e-mail and those who were already scheduled to serve as a preceptor and had permission from the relevant manager were given priority.

Being a preceptor to new employees or students is part of all job descriptions within the WRHA Regional Pharmacy Program. Pharmacists and technicians serve as the primary preceptors to pharmacy students, technician students, pharmacy residents and new employees. Each learner is typically paired with the same primary preceptor throughout his or her SPE (students) or training period (new employees). Supervision is gradually reduced as appropriate to the stage of education and the individual's progression through the SPE or training period.

The course was delivered to unionized personnel during paid work time. All activities had to allow for flexible scheduling, in recognition of the collective agreement, pharmacy operational needs, coaches' availability and commitments related to the SPE or training period. The course required a minimum of 5 hours paid time to attend seminars. The learner's manager approved extra paid time, as feasible, for reading and lesson planning. Preceptor coaches were allowed 2 hours paid time per participant.

Continuing professional development credit (10 contact hours) was secured for participation in the

course. Participation did not alter the assignment of students or trainees within the WRHA Regional Pharmacy Program. Participants were reassured that successful completion of the course would not result in disproportionate assignment of students or trainees to them.

Instructional components and structure

The instructional format consisted of self-study readings and seminars followed by an SPE (“learning by doing”). The course coordinator (D.M.M.W.) facilitated 2 interactive seminars (each 2 hours in duration with 2–7 participants) to enhance knowledge (e.g., how to create a lesson plan), elicit participants’ experiences and then discuss the application of principles to real-life preceptorship situations.⁸ These small-group seminars allowed for social interaction, which is important for knowledge construction. Each participant was then required to develop a lesson plan for a learner based on materials relevant to the particular learner–participant pair. Finally, course participants completed an SPE during which the participant used his or her lesson plan in a preceptorship situation with a learner. The duration of the course participant’s SPE corresponded with the duration of the student’s SPE or the new employee’s training period (usually 3–8 weeks).

During their SPEs, participants in the preceptor training program received feedback from a preceptor coach on several occasions. Experienced preceptor coaches (5 pharmacists and 1 technician, assigned to course participants according to their availability) provided guidance to course participants as needed by telephone, e-mail or face-to-face discussions. Four of the preceptor coaches were prior graduates of the preceptor training course who volunteered to receive additional experiential training to become preceptor coaches for future course participants. Each preceptor coach directly observed the course participant interacting with his or her learner on 2 or more occasions. At least one session involved observation of the course participant giving feedback to the learner. Feedback was provided to the course participant immediately after each period of observation and after each telephone, e-mail or face-to-face contact with the preceptor coach. Course participants were asked to self-assess their performance in relation to the learning objectives and associated performance descriptors embodied in the “coaching conversation” or observation period (Appendix 1) and the preceptor coach then provided feedback linking observations to learning objectives and seminar content and inviting discussion about

MISE EN PRATIQUE DES CONNAISSANCES

- Nous avons conçu un cours de formation de précepteur en milieu de travail afin d’aider les pharmaciens et les techniciens en pharmacie à développer et à appliquer leurs compétences et leurs connaissances relatives au rôle de précepteur, de formateur ou d’enseignant clinique.
- Les participants ont bénéficié des commentaires du précepteur formateur, et ont pu concevoir et mettre en œuvre un plan de leçon, ainsi que définir et utiliser différents styles d’apprentissage et d’enseignement.
- La mise en œuvre d’une telle rotation des rôles dans un autre contexte nécessitera un accès à des outils d’enseignement et d’apprentissage destinés aux précepteurs, ainsi que des ressources fonctionnelles, des horaires flexibles et la volonté politique d’assurer la disponibilité des participants et de développer l’expertise du coordonnateur de cours et des précepteurs formateurs.

areas for refinement or further learning.

Each learner was informed by the participant at the start of the learning experience that the participant was enrolled in a course, that a preceptor coach would attend some learner-participant interactions, that all observations would be held in the strictest confidence and that the coach could have no influence on the learner’s mark (if applicable). Learners were also advised that they could ask to be switched to another preceptor if this was of concern. Because observation of interactions involving feedback occurred late in the preceptor-learner relationship, by which point the coach had already attended 1 or 2 prior meetings, the learner was familiar with the coach and was well aware that the coach was not present for the purpose of assessing the learner.

Course evaluation

The study population included all participants in the WRHA Regional Pharmacy Program’s preceptor training course since its inception. At the end of the course, participants and coaches completed written evaluation forms consisting of questions with open comment fields related to perceived level of achievement in applying course knowledge and skills, areas of opportunity to further enhance preceptor skills, strengths and weaknesses of course structure, suggestions to improve the course and comments about support and instruction provided by the preceptor coach and seminar facilitator. These written comments (blinded as to names of participant, coach and learner; practice site; and patient care team) were collated by one investigator (D.M.M.W.) to determine the usability of resources, perceived value and opportunities for course improvement

TABLE 1 Characteristics of participants in preceptorship course, 2006–2011

Health care discipline	No. of course participants	No. of health care facilities represented	No. of pharmacy service teams represented
Pharmacist	28*	6	12
Partnered with student	17†		
Partnered with resident	9†		
Partnered with new employee	2		
Pharmacy technician	12	2	2
Partnered with student	8‡		
Partnered with new employee	4		

* Includes 7 pharmacy resident–student pairs (accounting for 14 people). † Representing 2 academic programs. ‡ Representing 1 academic program.

at the end of the course.

To gather further information about the usability and perceived value of the preceptor training course to the participants, a qualitative study was conducted between April and June 2011, 3 months to 3 years after participants had completed the course. All course participants were invited via workplace e-mail to take part in a face-to-face interview, which was conducted by a single investigator (C.B.R.) who had no supervisory relationships with the participants. Interviews consisted of open-ended questions about the most and least useful aspects of the course, lasting impact, recommendations for future courses and unintended consequences. Sessions were audio-recorded, then transcribed verbatim.

Data from the evaluation forms and interview transcripts were analyzed by qualitative description to identify themes.^{9–11} Interview participants provided written informed consent. The University of Manitoba Health Research Ethics Board approved the interview analysis. The end-of-course evaluation questionnaires were exempt from ethics review.

Results

Since 2006, a total of 40 pharmacists and pharmacy technicians have participated in the preceptor training course (in 11 cohorts) and completed standardized written evaluations (Table 1). Interviews were conducted with 14 of the course participants (referred to hereafter as “interview participants”). Eleven (79%) of the interview participants were women; 8 (57%) were pharmacists and 6 (43%) were technicians,

with experience as a preceptor (before the course) ranging from 1 to 25 years (median 12 years).

Similar themes emerged from the evaluation forms and interviews (Table 2). All interview participants felt that the course had been useful. Aspects that participants found particularly useful included feedback from a coach, making and implementing a lesson plan and identifying and using different learning and teaching styles. Some participants also described changes in their attitudes toward or behaviours related to new employees or students, including going out of their way to approach new employees and learners, using unfamiliar learning styles and consistently using a lesson plan for learners. Challenges with the course included finding time for course activities, coordinating meetings with the preceptor coach and the timing of the preceptor training course in relation to actually performing in the preceptor role. We received similar comments from pharmacist and technician participants.

Discussion

We sought to create and deliver a practical course to enhance development and application of preceptor knowledge and skills within a hospital pharmacy workplace. The course was successful in achieving this goal, as all participants completed and reported satisfaction with the course.

This course could be applied in other workplaces where pharmacy staff members participate in experiential education programs for pharmacy learners. The concept of training numerous individuals through the preceptor training course and then encouraging individuals to become preceptor coaches for future course participants could increase educational capacity within the practice setting. It could also encourage deeper application of and reflection on preceptor skills. This innovative course would be suitable for structured training in small or large pharmacy departments that host students from pharmacy practice residency programs or undergraduate pharmacy or technician programs. Given that participants who provide training for new employees also found the course useful, it would also be beneficial for pharmacy settings that do not host students.

The delivery format was appropriate for accomplishing course goals in a workplace with a mixed group of pharmacist and technician participants, regardless of prior preceptorship experience. Participants did not feel that having a mix of pharmacists and technicians or a mix of years of experience in the facilitated seminars detracted

TABLE 2 Themes and illustrative quotes from evaluation forms and interviews

Theme	Quotations
It was useful to discover different learning and teaching styles.	<ul style="list-style-type: none"> • “I had a very dependent learner and I was able to create a safe [learning] environment, where the learner could feel confident about mastering the skills required.”
Lesson planning was useful in providing a successful preceptor experience.	<ul style="list-style-type: none"> • “The [preceptor training course] really made me put together a plan for what I was going to do with a student/resident/whatever and ... think about how that rotation would run without flying by the seat of my pants.”
Putting myself in a new person’s or student’s shoes was valuable in terms of how I interacted with a vulnerable learner in my workplace.	<ul style="list-style-type: none"> • “We were able to ... do a round table and give examples of all that we did as individuals [before] coming to this site, like starting at [XX hospital]... Putting yourself in the student’s shoes and going back to your first day of work or school... Anything to calm the student and make them feel welcome does have a big part in teaching.” • “I haven’t really had a chance to do a preceptorship, but it [the preceptor training course] helped me change and see how it is for new people, new employees, new students... I’ll really go out of my way now to introduce myself to a new employee and maybe take that extra step to talk to them a little bit more.”
Availability of and positive interactions with a skilled coach were helpful in gaining skills and having more successful interactions with learners.	<ul style="list-style-type: none"> • “[The preceptor] coach helped me deal with potential problems, and encouraged me and gave me great advice on how to deal with difficult situations, such as a learner who refuses to follow procedures.” • “I think it [structured practical experience with a preceptor coach] is good — a little bit nerve-wracking to be observed, but probably very useful, because if someone can give you feedback, I think you can learn from that. It’s the kind of thing that you’re not ever receiving, really, in that manner.”
I experienced an attitudinal and practice change toward new employees or other learners.	<ul style="list-style-type: none"> • “The best thing I learned was that there’s more than one [way] — people learn differently so you have to adapt your training to their personality or the way they think, what they’re comfortable with. I don’t know if I really noticed before, but [after] I was more sensitive to the person I was training and how they learned, to see what their needs were. It was also important that I just told them ‘you need to tell me what you need from me to become part of the team.’” • [A key concept was] “how to better train as a trainer. I find it easier training, having done this course, because I never thought of questioning someone, or even if I had before, I didn’t do it as I do now — [for example] ‘what do you think would happen if you tried it this way?’”
I experienced challenges related to time and scheduling.	<ul style="list-style-type: none"> • “It would have been nice to have more one-on-one time, as it was really hard for me to leave my job to meet with my student... More time would have been a little more beneficial.”

from learning. Several participants commented on the utility of hearing other perspectives or noted that the presence of both disciplines reinforced the universality of preceptor knowledge and skills. Even experienced preceptors valued the course and stated that they learned from others’ perspectives, from making a lesson plan and from being coached. The SPE portion of the course and feedback from the preceptor coach were integral to participants’ learning; therefore, the course as designed is unlikely to lend itself to self-study, in-class or online delivery.

Both the facilitated seminars and the SPE components of the course employed the cognitive apprenticeship strategy.^{6,7} Participants felt that facilitated interactive seminars were useful, but the most valued aspect of the course, even among practitioners who had been preceptors of many learners in the past, was receipt of feedback from a preceptor coach. Although some interview participants reported that it was “nerve-wracking” or unfamiliar to be observed, many found that it resulted in a comfortable, collegial exchange with a coach about improving skills. That the course format and structure were effective for achieving goals and engendering lasting change in participants was

made clear by interview participants’ reference to attitudinal and practice changes up to 3 years after completion of the course.

Being an effective preceptor is critical for successful training and retention of new pharmacy personnel. The WRHA Regional Pharmacy Program invested in the course because of a belief that suboptimal preceptorship was contributing to organizational inefficiencies (e.g., maldistribution of preceptor workload to and associated burnout of a small number of pharmacy staff; incremental time required to address preceptor-learner conflict or performance issues of personnel who received suboptimal initial training). We found that the course was scalable at reasonable cost and that one course coordinator could serve as preceptor coach until team-based coaching capacity grew.

To implement this course elsewhere will require operating resources (paid time), as well as scheduling flexibility and the organizational commitment to make participants available and to develop the expertise of both coordinator and coaches. Access to a repository of preceptor teaching and learning tools will also be required. Numerous tools are available through this course (as listed in Appendix 2), through

hospital pharmacy residency accreditation bodies, through university departments of continuing health professional education and through the SPE programs at pharmacy and pharmacy technician schools across Canada. Partnerships and communication between pharmacies and faculty or college SPE programs could allow pooling of resources and minimize set-up efforts. Technician training currently lacks formal inclusion of principles of practice-based education for health care professionals, student technicians and new employees.¹² However, as pharmacy technicians continue to move toward practising to full scope and assuming full responsibility to manage and provide drug distribution services,¹³ effective and efficient preceptor development will become increasingly important.

The preceptor training course and its evaluation were subject to some limitations. First, we did not try to evaluate the learners' perspectives about the preceptor training course or the skill of the participants with whom they worked. The learners were new employees, students or residents with minimal experience of preceptorship and because of potential power imbalances among learners, course participants and coaches, we felt it inappropriate to ask learners to compare one preceptor to another or provide feedback to the authors. Second, for some participants in the preceptor training course, up to 3 years had

elapsed between completion of the preceptor training course and the evaluation interview. This lapse of time might have influenced participants' memory of the seminars, the SPE component or the course overall. However, the course evaluation forms were also used as a data source for this study and those forms were completed immediately after the preceptor training course. Finally, we did not attempt to quantify the number of pharmacy staff members willing to serve as preceptors and whether this number changed as a result of the course, given that preceptor duties are part of the job descriptions of all pharmacy staff in the WRHA Regional Pharmacy Program.

Conclusion

Developing the preceptor skills of personnel in pharmacy workplaces is challenging, yet essential to meet requirements of current and future pharmacy practice. The creation of a formal course, using instructional design grounded in constructivist theory, allowed us to implement and refine tools and a curriculum for preceptor training of pharmacy residents, technicians and pharmacists within a hospital pharmacy workplace. SPE with feedback from a coach resulted in satisfaction with learning and evidence of attitudinal and behavioural change up to 3 years after the course. ■

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