RESEARCH ARTICLES

Continuous Professional Development: A Qualitative Study of Pharmacists' Attitudes, Behaviors, and Preferences in Ontario, Canada

Zubin Austin, PhD,[a] Anthony Marini, PhD,[b] Nora Macleod Glover, BSP,[c] and Della Croteau, MCEd[c]

[a]Leslie Dan Faculty of Pharmacy, University of Toronto, Canada
[b]University of Calgary, Canada
[c]Ontario College of Pharmacists, Canada

Objectives. The purpose of this study was to examine pharmacists' attitudes, behaviors, and preferences towards continuous professional development in Ontario, Canada.

Methods. A series of 11 focus group sessions were undertaken with groups of 4 to 5 different pharmacists participating in the Ontario College of Pharmacists' Quality Assurance and Peer Review Process Learning Portfolio session. During these sessions, extensive field notes were compiled and verified with participants. Following all sessions, field notes were transcribed and analyzed thematically using a qualitative data analysis method.

Results. Four key themes were identified: (1) definitions and conceptions of continuous professional development (CPD) and continuing education (CE); (2) evolution from a CE to a CPD paradigm; (3) workplace learning as a vehicle for CPD; and (4) the role of peers in enabling CPD.

Conclusions. In this study, pharmacists had an opportunity to discuss attitudes, personal behaviors, and preferences regarding CPD and CE. Participants expressed ambivalence towards CPD and were concerned about their lack of skills in self-identification of learning needs and vehicles by which this could be addressed. Participants agreed that workplace learning is a pivotal yet underemphasized component of CPD, and that peer-support is vital in adopting a CPD paradigm.

Keywords: continuous professional development, pharmacy practice, pharmacy education, lifelong learning

INTRODUCTION

Maintenance of competency is a significant issue for pharmacists, pharmacy educators, regulators, and managers. The International Pharmacy Federation (FIP) has stated: "Maintaining competence throughout a career during which new and challenging professional responsibilities will be encountered is a fundamental ethical requirement for all health professionals. Patients have a right to be confident that professionals providing health care remain competent throughout their working lives."[1]

Within the pharmacy context, maintenance of competency requirements and expectations varies between jurisdictions. In some areas, collection of continuing education credits is required. In others, documentation of learning activities is required. Recently in some jurisdictions, demonstration of competence through performance-based assessment was made mandatory.[2-4] This continuum of expectations is reflected in the broad variety of terms and definitions used to describe the process of maintaining competency. Terms often used inter-changeably include lifelong learning, continuing education, and continuous professional development. While similar, each term connotes a different perspective on maintenance of competency.

Lifelong learning has been described as "…all learning activity undertaken throughout life with the aim of improving knowledge, skills, and competencies within a personal, civic, social, and or employment-related perspective."[5] Such a broad definition may be appealing for those who view professional work and personal development as intertwined, but may be too nebulous for those who believe maintenance of competency in a professional context requires structure and formalized processes.

The term "continuing education" is widely used in the health professions, and has been defined as "…organized learning experiences and activities in which [health care professionals] engage after they have completed entry-level academic education and training. These experiences are designed to promote the continuous development of the skills, attitudes, and knowledge needed to maintain proficiency, provide quality service or products, respond to patient needs, and keep abreast of change."[6] This emphasis on organized experiences and activities

Corresponding Author: Zubin Austin, PhD. Address: Leslie Dan Faculty of Pharmacy, University of Toronto, Canada.
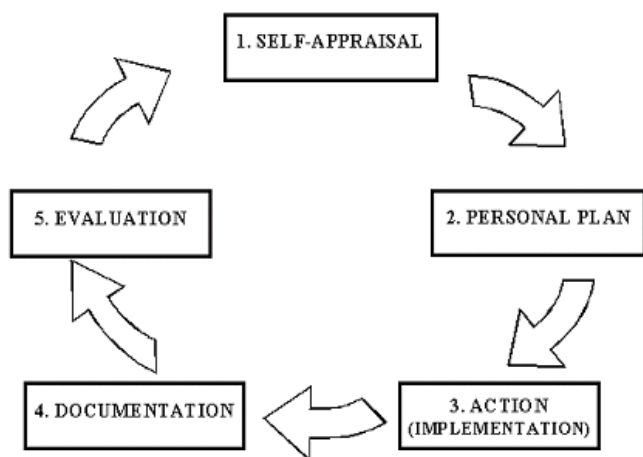
Figure 1. Five-Stage Continuous Professional Development Cycle. Adapted from FIP, 2002.[1]

(rather than all experiences and activities as described for lifelong learning) is further emphasized through the definition for continuing education proposed by the Accreditation Council for Pharmaceutical Education: "Continuing education for the profession of pharmacy is a structured process of education designed or intended to support continuous development of pharmacists to maintain and enhance their professional competence."[7]

The Institute for Personnel and Development in the United Kingdom has put forth a definition for Continuing Professional Development (CPD) as "…systematic, ongoing, self-directed learning. It is an approach or process which should be a normal part of how one plan(s) and manage(s) one's whole working life." The CPD model aims to provide a more complete description of the process of maintaining competency within the health professions. Within the profession of pharmacy, the concept of CPD has been embraced and modified by numerous organizations. For example, the International Pharmacists' Federation has defined CPD as "…the responsibility of individual pharmacists for systematic maintenance, development, and broadening of knowledge, skills, and attitudes to ensure continuing competence as a professional throughout their careers."[1] Hanson has described CPD as "…post graduate professional education, involving a cycle by which individual practitioners assess their learning needs, create a personal learning plan, implement the plan, and evaluate the effectiveness of the education intervention as it applies to their pharmacy practice."[8]

Four specific features of CPD are distinctive:

- It is based on the practitioner's self-identified learning needs, not those identified or imposed externally;
- CPD is self-directed, requiring the learner to demonstrate motivation and responsibility for his/her learning;
- CPD is linked to needs within the practice itself (ie, issues that arise out of the unique features of the individual's professional practice);
- Outcomes (in terms of maintenance of competence, professional development, and the meeting of individual or organizational goals) frame the entire process.

Less well defined within the CPD model is the notion of workplace learning, which in the past has not always been viewed as legitimate continuing education. Real life learning occurring in the workplace and outside the lecture can and does contribute meaningfully to maintenance of competency. Recent literature has pointed to the value of workplace learning in enabling professional development in medical education and training.[9]

In general, CPD incorporates principles of reflection (or self-assessment), planning, implementation, evaluation, and documentation (see Figure 1). Taken together, these steps are integral to the maintenance of competency, especially within a professional context. As part of the documentation process, the use of a learning portfolio has been adopted by some jurisdictions, including the United Kingdom, New Zealand, and Ontario.

Used as a professional journal, the portfolio forms an evolving transcript of the practitioner's day-to-day experiences in practice.[10] Documentation of all learning – formal, structured continuing education, and learning in the workplace, as well as every-day clinical problem-solving – provides a basis for ongoing reflection and professional development.[11]

The evolution to a CPD model and use of the learning portfolio for reflection and documentation of CPD is relatively new for pharmacists in many jurisdictions. The impact of these changes on individual practitioners' professional development has not been adequately researched or described. Consequently, this qualitative study was undertaken to provide an understanding of the real-world implementation of a CPD model in pharmacy practice.

The purpose of this study was to examine pharmacists' attitudes, behaviors, and preferences regarding their own continuous professional development and that of the profession of pharmacy as a whole. The setting for this study is Ontario, Canada's largest province (home to approximately 11 million people), where approximately 8,000 practicing pharmacists provide patient care.

METHODS

This study was conducted as part of the Ontario College of Pharmacists' Quality Assurance Practice

Table 1. Demographic Profile of Participants (n=42)

Demographic	n (%)
Sex of Participants	
Male	17 (41)
Female	25 (60)
Place of Graduation/Training as Pharmacist	
Canada/USA	29 (69)
Outside Canada/USA	13 (31)
Primary Site of Practice	
Community Pharmacy	32 (76)
Hospital Pharmacy	8 (19)
Other	2 (5)
Years Since Graduation as Pharmacist:	
<15 years	21 (50)
15-25 years	10 (24)
>25 years	11 (26)

Review program. As part of this program, approximately 200 pharmacists from across Ontario are randomly selected on an annual basis to participate in a series of assessments, as part of their requirement to demonstrate continuing competency.[4] Assessment components include a case-based written test of clinical knowledge, and an objective structured clinical examination (OSCE). The Quality Assurance Practice Review is held 4 times annually; approximately 50 pharmacists from diverse regions of the province attend each session.

A component of the Quality Assurance Practice Review program includes a learning portfolio sharing session. Unlike the written test of clinical knowledge or the OSCE components, this sharing session is framed as an opportunity for participants to engage in discussion with other pharmacists regarding practice issues and continuing professional development. Each sharing session is led by a facilitator (a pharmacist-educator) who uses a semi-structured guide to assist participants in discussing issues related to learning, professional practice, and their ongoing development as pharmacists. Prior to attending the sharing session, each participant submits their personal learning portfolio for review and comment by staff members of the Ontario College of Pharmacists (OCP). This written review provides individualized feedback regarding identification of learning objectives, processes, and resources utilized.

To better support pharmacists in developing and maintaining their own learning portfolios, OPC has developed a series of publications, seminars, and a computer-based template that may be used by pharmacists in maintaining their own portfolio. While no specific portfolio format is mandated by OCP, they recommend that pharmacists maintain a record of their learning activities

that allows them to self-assess learning needs, identify suitable resources, develop and implement a personal learning plan, evaluate its outcome, and document learning and its impact on their practice in accordance with the general principles of CPD. OCP has developed a series of prompts and codes that may be used by pharmacists to maintain a systematic record of learning, whether occurring in the workplace, or through other channels.[12] Appendix 1 provides a template for a typical learning portfolio entry, as suggested by OCP. This study was undertaken during a Quality Assurance Practice Review in September 2003. Eleven scheduled learning portfolio sharing sessions were used as focus groups. The facilitator received consent from participants to maintain field notes and quotations; participants were informed that no attributions or names would be linked to field notes or quotations. Each focus group consisted of 3-5 pharmacists, and was approximately 90 minutes in length. Participants in these sessions were randomly selected (as part of the Quality Assurance Practice Review process), and were encouraged to freely share their experiences and opinions regarding continuous professional development issues in pharmacy. The semi-structured facilitated discussion focused on 3 key areas: participants' attitudes towards CPD (as distinguished from and compared with CE), their actual behaviors (comparing activities undertaken within a CPD paradigm vs a CE paradigm), and their preferences (including discussion of effectiveness and efficiency of a CPD approach compared with a traditional CE approach to maintenance of competency). During these sessions, extensive field notes were compiled, and direct quotes from participants noted. At the conclusion of each session, the facilitator clarified and confirmed quotations and field notes with participants. The same facilitator was used for all 11 sessions.

Field notes and quotations were entered into a computerized database program (Knowledge Forum 3). Entries were categorized according to topic and frequency of response. From this categorization, a coding scheme was developed and iteratively refined to allow for systematic analysis of data according to themes and subthemes. Confirmation of major themes was undertaken through a systematic process of re-analysis of notes. Further confirmation of themes was undertaken by providing all participants with an opportunity to review data results and an initial draft of this paper.

RESULTS

A demographic profile of study participants is presented in Table 1. Forty-two pharmacists participated in this study.

Four major themes were identified and confirmed through data analysis:

- Definitions and conceptions of CPD and CE;
- Pharmacists' evolution from a CE to CPD paradigm, or implementation of CPD;
- Workplace learning as a primary vehicle for CPD;
- Peer-support as a major enabler of CPD.

Definitions and Conceptions of CPD and CE

Though less than half of participants in all focus groups were initially familiar with the term "continuous professional development" and its implications vis-à-vis continuing education, most immediately grasped the conceptual and practical differences between these models when presented to them by the facilitator. The majority of participants expressed an initial preference for the more traditional continuing education model, one that provided specific structure and outcomes for learning. While Ontario has never had a compulsory continuing education model for pharmacists, many participants expressed a preference for such a method of enforcing and documenting ongoing learning. As one pharmacist noted,"At least with compulsory CE we knew how many hours we were supposed to attend. I know 20 hours a year doesn't seem a lot, but, well, at least we knew what was expected of us. Now, it's too uncertain."

Participants expressed their concern that the CPD approach was too easily manipulated, and that pharmacists could easily fake their activities. This notion that CPD may be less structured, and therefore less rigorous, was echoed by those who felt that expert-driven continuing education was more meaningful as a vehicle for learning than workplace-based problem-solving or self-directed learning.

While participants agreed with the concept of CPD, they questioned its practical application. Some expressed concerns that principles of CPD such as self-appraisal, identifying personal learning goals, and evaluation were nebulous concepts without clear processes in place to assist individuals in accurately self-assessing.

Those pharmacists who were initially familiar with CPD endorsed the model for their peers, and suggested it had made a meaningful difference in the way they viewed their own practice. In virtually all focus groups sessions, pharmacists familiar with and supportive of the CPD paradigm had worked in collaborative practice environments such as hospital pharmacy practice. For these pharmacists, the major advantage of CPD was the linking of workplace learning with continuous education. One pharmacist stated, "It's amazing how much I have to learn every day, when I work as a pharmacist.

With [the learning portfolio] it helps to show how much learning we all do, every day. It's kind of satisfying to look it over and see how much you accomplish."

Within many of the learning portfolio-sharing sessions, debates emerged regarding the true value of traditional continuing education and its outcome in changing an individual's practice. While participants appreciated the opportunity for social and professional networking inherent in some forms of traditional CE, most eventually conceded that the academic value of most CE programming was limited by the lack of a systematic process for following-up and implementing new learning in the workplace.

"Well it's nice to go to these [continuing education] events, but really, I don't know how useful they are. You go, you sit, you listen, but then, well I at least forget."

In general, participants liked the convenience and structure of most forms of continuing education (especially seminars/workshops, and home-study units with multiple-choice self-assessment). However, opportunities for application of new learning from continuing education, and thus reinforcement of new knowledge gained, were constrained, and that this adversely impacted on the overall value of continuing education as a model.

Evolution from CE to CPD

All participants acknowledged that their previous education and professional experience had supported the traditional CE paradigm. While they realized the importance of maintaining competency, this had been defined mainly in terms of completion of accredited CE events, with only limited follow-up and implementation in practice. Within the province of Ontario, the move to the learning portfolio had occurred approximately 6 years earlier. Participants were aware of this policy shift, but most expressed lack of confidence in their knowledge of how this should affect their day-to-day professional life.

As part of the education process and implementation of the learning portfolio, OCP had described situational triggers for learning, or everyday opportunities to engage in CPD. Participants identified undertaking new learning as a result of attempting to solve a clinical problem as the most frequent reason for updating knowledge and skills. Major stimuli or triggers for learning included: clarification of a prescription; responding to a drug information request from a physician, patient, or allied health worker; and following up on a medication-related issue.

A major frustration for participants (and a rate-limiting step to the evolution from CE to CPD) was the inability to share learning between colleagues within the same practice site. One participant provided a recent example

of a situation in which she had contacted a regional drug information center to question the dose on a prescription for demeclocycline to treat hyponatremia; upon clarifying the dose, she was informed that another pharmacist from her pharmacy had asked this exact question the day before. "The real problem here isn't about my learning or someone else's. It's that we don't, as a profession, have a good way of sharing what each of us have learned with each other. This, well, this wastes everyone's time and just makes us look bad as professionals."

Most participants expressed frustration at the pace and intensity of pharmacy practice (particularly in the community) and how this adversely affected their ability to integrate learning into their practice, and fully embrace CPD: "Every day it's go, go, go, so if you do have to look something up to solve a problem, well, then you just forget about it right away when you look up the next thing. There's just no time in [my pharmacy] to really sit and think about what you've learned."

Time and resource management issues in learning were the most frequently cited reasons why the traditional CE paradigm was easier to adopt than the CPD paradigm. Significant issues were raised regarding the lack of employer support for most pharmacists in maintaining personal learning databases. For example, in many community pharmacies, computers used for drug distribution purposes (eg, patient record keeping, label printing, etc) were not accessible by pharmacists for their own learning needs. Consequently, participants reported having to maintain personal systems for storing information and recording learning activities. Many participants offered personal anecdotes regarding their own learning information resource management techniques. Most pharmacists expressed preferences for manual systems (eg, filing of interesting articles, handwritten summary notes of findings, etc). Few pharmacists used technology (such as handheld computers, databases, etc), even though most owned a computer and had ready access to it in their homes. A significant learning challenge reported by most pharmacists was managing the volume of reading, updates, and communications in pharmacy in a way that would allow them ready access of this information later. Consequently, for most pharmacists (particularly those in community practice), regional drug information centers were the primary source of information in real-world problem-solving.

Implementation of CDP was further frustrated by a lack of systematic educational opportunities for pharmacists to learn, practice, and receive feedback on critical skills such as self-assessment, identification of learning needs and resources, and evaluation of one's own learn-ing. Lack of confidence in their own abilities, coupled with a lack of available role models or mentors to assist in acquisition of these new skills, dampened enthusiasm for the CPD model and encouraged perpetuation of the traditional CE paradigm. A frequently occurring reason for not embracing CPD more fully was framed as "how do I know I'm doing it right?"

Workplace Learning as a Primary Vehicle for CPD

As described previously, most participants expressed a preference for learning activities that are structured and convenient, and as reported in their learning portfolios, participants behaved accordingly. For many participants, workplace learning appeared too nebulous and therefore nonrigorous. Instead, participants favored structured learning activities including attendance at expert-led workshops or lectures, and completion of home-study lessons with a multiple-choice assessment component to confirm that learning outcomes were achieved. Few participants had experience with computer-assisted learning programs; those who had suggested that computer-based learning was convenient and could provide illustrations (eg, mechanisms of drug action or human physiology) that paper-based home-study programs could not.

A consistent problem for many participants was the ability to apply such structured continuing education learning to their real-world practice: "It always seems so easy when you're in a session, but then time and just the day-to-day work of being a pharmacist makes it very difficult to really do anything with what you've learned."

Many participants (even those who were strongly supportive of the continuing education model) candidly commented on the disconnection between CE and practice. When asked to clarify, most commented that the significant learning associated with structured CE such as seminars and workshops was the opportunity to actually interact with their peers, not the content or expert delivery. Many participants also commented that their reasons for preferring CE such as home-study units related mainly to convenience and the feeling of accomplishment upon completion, rather than to any sense of having acquired new knowledge or skills they could actually apply in the workplace. The few participants who had engaged in computer-based learning commented that it was most effective when it included a communication component and the opportunity to engage in e-conversation with peers; CE programs that emphasized connectivity with peers over simple content were strongly preferred.

For many participants, one of the most significant workplace-based learning activities was teaching students. As one participant commented, "You never learn

anything as well as when you know you're going to have to teach it to someone else!"

Participants commented on both the intellectual and the personal rewards of teaching, in particular teaching of undergraduate pharmacy students. An area of particular benefit was the social interaction and the need to distill complex concepts down to basic principles, from which re-examination of somewhat automated processes could then occur. Some participants also commented on the way in which teaching promoted self-reflection and required examination of certain long-held assumptions. In this way, teaching of students required pharmacists to actively engage in self-reflection, identification of learning needs and resources, implementation, monitoring and follow up, in other words, the CDP cycle.

The Role of Peers as Major Enablers of CPD

A significant theme among virtually all participants related to the nature of pharmacy practice, particularly in the community setting. As one pharmacist commented, "It's been 20 years since I graduated from school. When I was in school, I got a chance to learn how to counsel patients…by watching my preceptors and learning from them. But now, I work in a pharmacy by myself, with no overlap between pharmacists. It's been 20 years since I've ever seen anyone else do my job. How do I know if I'm still doing everything the way I'm supposed to?"

Another commented, "When I graduated, pharmacists weren't even allowed to speak to patients about the drugs, or even tell them the name of the drug. Now, well of course, that's all changed. We read about it, they told us about it. But nobody really showed us how to do it. We just had to learn even though no one was there to teach us."

Comments such as these were particularly resonant with the community pharmacists. Several spoke about how, when visiting different communities, they would go into pharmacies pretending to be a nonpharmacist client looking for information just so they could observe how other pharmacists did their jobs. Others described how they would deliberately go to different pharmacies to get personal prescriptions filled for the purpose of receiving counseling from a different pharmacist. Even those in hospital pharmacy practice where, traditionally, peer interaction is more commonly encountered described their isolation in terms of development and maintenance of clinical skills.

The connection between practice isolation and CPD emerged in a variety of discussions related to attitudes, behaviors and preferences. Issues related to motivation to learn, retention of knowledge, application of knowledge, and quality control in education would, in most participants' opinion, be significantly improved through greater peer-based interaction. Those most vulnerable to practice isolation (ie, those working in remote rural community pharmacies) spoke about the geographical and logistical difficulties they experienced in accessing peer support for their development. Even in larger urban centers, time pressures may preclude pharmacists sharing clinical knowledge with one another; thus, an important learning reinforcement strategy is unavailable.

Those pharmacists whose practices were predominantly hospital-based commented on their need to interact more frequently with their community-pharmacy colleagues. For these individuals, there was a sense that hospital-based practice, while rewarding, often results in semi- or full specialization. As one participant pointed out, "In the hospital, well, you end up being an inch wide and a mile deep when it comes to pharmacy – you know a lot about very few things. Community pharmacists on the other hand, well they're a mile wide, but an inch deep. Maybe together, we could be a mile wide and a mile deep?"

For some pharmacists, a central issue in the CPD model is self-appraisal and identification of personal learning needs. The paradox inherent in self-appraisal, "knowing what you don't know," may be facilitated through peer interaction. Several participants commented on the value of the learning portfolio sharing session itself in alerting them to previously undetected learning gaps. After participating in the learning portfolio session, one pharmacist commented, "This was very interesting. I didn't realize that other pharmacists were having problems communicating with the other pharmacists they worked with. I thought that was just a problem in my store. And I really liked the suggestion from [the hospital pharmacist] about setting up a communication binder with alphabetical tabs for the whole pharmacy, not just for me as one individual pharmacist."

DISCUSSION

This research has provided important insights into the real-world nature of ongoing learning and development in the profession of pharmacy. One important finding of this study is the potential disconnect between pharmacy educators and regulators, and pharmacists. While the former 2 groups believe in and support the value of a CPD model, the latter group may not be as engaged in the process. This study demonstrated that most pharmacists, while recognizing the advantages of the CPD model, may still prefer the comfortable, recognizable elements of compulsory continuing education. However, when these preferences were analyzed and subjected to debate (particularly from peers), the

strength of these opinions were, in fact, quite low. A challenge for educators and regulators then is to ensure that pharmacists understand the differences between CPD and CE, are provided with tools necessary to make CPD manageable and achievable, and to ensure that incentives for CPD are in place to encourage pharmacists to undertake the cognitive shift necessary to support it.

Participants in this study openly discussed their discomfort in and lack of confidence regarding self-appraisal, the crucial first-step of CPD. Clearly, self-appraisal may not be a natural propensity or skill for some individuals, despite years of professional experience. Tools to assist pharmacists in acquiring self-appraisal skills and to encourage emergence of a reflective professional practice need to be developed and disseminated. To facilitate self-assessment of and documentation of learning, other tools need to be developed. While a learning portfolio may be an important first-step for some pharmacists, it may not be sufficient for many. Modeling, mentoring, and feedback are needed to provide pharmacists with the skills and confidence necessary to engage in CPD, including maintaining and benefiting from the learning portfolio.

The challenge of shifting from a CE paradigm to a CPD paradigm appears to be quite significant. For most pharmacists, the structure and process for CE is reminiscent of the education they received, and succeeded in, as pharmacy students: attending lectures, reading articles, and completing multiple-choice tests. Consequently, where time and resource pressures exist, these old patterns of learning are frequently relied upon as a natural way of learning. CPD requires a different approach to learning, one that (until relatively recently) was never explicitly modeled or taught in most pharmacy schools. Consequently, pharmacists may not have any practical experience in such an approach, and may lack the skills to implement it. Clearly, additional education and resources are required to provide pharmacists with both the skills and the incentive to change paradigms.

In many ways, the unifying theme of this research has been the under-researched role of peers in continuous profession development. Throughout all learning portfolio sharing sessions, and in a variety of different contexts, the notion of the isolation inherent in pharmacy practice (particularly in community pharmacy) and the lack of peer modeling and benchmarking opportunities emerged as a significant problem for pharmacists. As described by many of them, pharmacy is a lonely profession. In part, the competitive nature of the business of pharmacy undermines attempts to collaborate. In addition, the structure of pharmacy (particularly community pharmacy) is such that pharmacists tend to work alone or with technical (rather than professional-peer) support.

From a human development perspective, this may have broad implications for continuing professional development. Austin has coined the term "learnworthy" to describe the process by which individuals adjudicate how and what will be learned.

> In a world of ever-increasing information channeled through a seemingly endless variety of sources, all competing for intellectual resources, human beings must create filters through which salient knowledge may pass and irrelevant knowledge may be blocked. The choice may be based on a series of oft-times competing priorities and incentives; nonetheless, a choice must be made….human beings must choose what it is they deem to be learnworthy.[13]

The way in which learnworthiness may be established is through a peer-referencing system in which individuals self-assess based on performance of their peers rather than externally imposed universal standards. In essence, peer self-referencing provides the vehicle by which individuals make conscious decisions around the need for learning and its value to their development and practice.

Harris has proposed that peer groups are central to children's and adolescents' development.[14] This research has suggested that peer groups may also be integral in assisting professionals (such as pharmacists) in deciding upon learnworthiness, and may play an important role in continuing professional development. Empirical evidence to support this notion is emerging. For example, in the Ontario College of Pharmacists' Quality Assurance program, individuals who graduated more than 25 years ago have an increased risk of being unable to meet patient care competencies. These individuals are also at increased risk of not being connected to the broader pharmacy community through participation in professional associations, working as preceptors or mentors for students, or being involved in other peer-based activities such as professional specialty networks.[4]

An intriguing issue thus emerges: what ought to be the "unit" of CPD? Traditionally, CPD has been framed as an individual activity; the unit of measurement is the pharmacist. Arguably, it is possible to conceive of CPD at the peer group level (eg, pharmacists working within one practice site, or within one geographical district, or with a specific specialty). The implications of this paradigm shift are significant from both a practical and educational perspective. Nonetheless, as this research has suggested, peer interaction appears to be an important and necessary component of continuing professional development, one that merits further research and discussion.

There are limitations to the generalizability of the findings from this study. First, the study design is based on a practice and regulatory framework that may be unique to Ontario. Elements such as the Learning Portfolio, and the Quality Assurance Practice Review, provide a context for understanding continuous professional development. In addition, the use of the learning portfolio sharing sessions as a convenient vehicle for gathering data from a random sample of pharmacists may limit the application of results to other settings or situations. Second, the concepts of continuous professional development and continuing education themselves are in a state of flux and evolution. As the pharmacists of Ontario become more familiar and comfortable with the learning portfolio, and as more of them have an opportunity to participate in learning portfolio sharing sessions, overall understanding of the principles of CPD will likely increase. Results from this qualitative study are not intended to suggest definitive answers to complex, evolving questions regarding pharmacists' professional development. Instead, this study was designed to evoke the real-world experiences of a group of pharmacists working through the transition from a CE paradigm to a CPD paradigm and to provide a foundation for ongoing research into professional development.

CONCLUSIONS

Regulators, educators, professionals and the public they serve all have a vital interest in ensuring that health care professionals maintain and demonstrate competency over their entire professional career. Models for maintenance of competency are evolving away from sole reliance upon structured, formal continuing education, towards a more holistic view of development that embraces workplace teaching and learning, real-world problem-solving, and a host of other practices not traditionally defined as professional development.

Despite the academic or intellectual appeal of such models, there continues to be some resistance on the part of practitioners to fully embrace CPD. The lack of structure and process, lack of skills in or propensities towards self-appraisal and evaluation, and time constraints all contribute to the less than fulsome acceptance of CPD

among some practitioners. An important finding of this study relates to the role of peers in CPD, and the ways in which greater peer modeling and benchmarking may assist pharmacists in adapting to the CPD paradigm.

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Appendix 1. Template for Learning Portfolio Entry

Individual Learning Activity

Date: (m/y) _____ / _____   Total Hours: _____

State your item of learning in the form of a specific question of statement:
_____
_____

STIMULUS: Circle **ONLY ONE** code

1   2   3   4   5   6   7   8 (specify):_____

LEARNING RESOURCES: Circle **as many as appropriate**

1   2   3   4   5   6   7   8 (specify):_____

OUTCOME: Circle **ONLY ONE** code

1   2   3

Notes:
_____
_____

Stimulus Code:

1.   Discussion with Peers
2.   During management of current patient/problem
3.   Group CE Activity
4.   Reading (scanning) literature
5.   Research
6.   Self-assessment program
7.   Teaching, serving as preceptor
8.   Other

Learning Resource Code:
1.   Home Study Program
2.   Group CE Activity
3.   Colleagues (discussion)
4.   Computer learning
5.   Planned literature search
6.   Reading articles, journals
7.   Self-assessment program
8.   Other

Outcome Code:
1.   I plan to change my practice
2.   I plan to pursue additional information
3.   No change needed to my practice. Findings reaffirm my knowledge.