Responsibility and confidence: Identifying barriers to advanced pharmacy practice

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ABSTRACT

Background: Despite the changing role of the pharmacist in patient-centred practice, pharmacists anecdotally reported little confidence in their clinical decision-making skills and do not feel responsible for their patients. Observational findings have suggested these trends within the profession, but there is a paucity of evidence to explain why. We conducted an exploratory study with an objective to identify reasons for the lack of responsibility and/or confidence in various pharmacy practice settings.

Methods: Pharmacist interviews were conducted via written response, face-to-face or telephone. Seven questions were asked on the topic of responsibility and confidence as it applies to pharmacy practice and how pharmacists think these themes differ in medicine. Interview transcripts were analyzed and divided by common theme. Quotations to support these themes are presented.

Results: Twenty-nine pharmacists were asked to participate, and 18 responded (62% response rate). From these interviews, 6 themes were identified as barriers to confidence and responsibility: hierarchy of the medical system, role definitions, evolution of responsibility, ownership of decisions for confidence building, quality and consequences of mentorship and personality traits upon admission.

Discussion: We identified 6 potential barriers to the development of pharmacists' self-confidence and responsibility. These findings have practical applicability for educational research, future curriculum changes, experiential learning structure and pharmacy practice. Due to bias and the limitations of this form of exploratory research and small sample size, evidence should be interpreted cautiously.

Conclusion: Pharmacists feel neither responsible nor confident for their clinical decisions due to social, educational, experiential and personal reasons. *Can Pharm J* 2013;146:155-161.

As a relatively new hospital pharmacist, I have observed that the dynamic between medicine and pharmacy is very different. As pharmacists transition toward more clinical roles, we must look within our profession to make the necessary changes, both social and academic, to advance our practice.

En tant que pharmacien hospitalier travaillant depuis peu dans le domaine, j'ai noté que la dynamique entre la médecine et la pharmacie est très différente. À mesure que les pharmaciens s'apprêtent à jouer un rôle plus clinique, nous devons examiner notre profession et procéder aux changements qui s'imposent, tant sur le plan social que didactique, pour faire avancer notre pratique.

Introduction

Despite concepts of *responsibility* and *confidence* being purported as the foundation of pharmacy education and practice,^{1,2} pharmacists are reluctant to take on responsibility for their decisions and do not feel confident in their clinical decision-making capabilities.³⁻⁶ In 2010, Rosenthal and colleagues⁷ explored anecdotal evidence in pharmacy culture. They suggested that pharmacists feel inadequately prepared for practice, lack professional confidence, fear new

responsibilities, are paralyzed in the face of ambiguous decisions, are obsessed with the need for approval from colleagues and generally avoid risks. In response to this controversial article, several pharmacists wrote letters to express their viewpoints and personal experiences, not to dispute, but to *confirm* these findings.⁸

The Triangle Model of Responsibility defines people's perceptions of responsibility for an event.⁹ As applied to pharmacists, this triangle consists of 3 points: 1) standards of conduct, 2)

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- Pharmacists are reluctant to take on responsibility and lack confidence in clinical decision making. Little evidence exists to explain these findings.
- This qualitative study involving 18 pharmacists identified 6 barriers to developing confidence and/or responsibility.
- By identifying and studying these barriers, changes to pharmacy education and pharmacy practice can be made.

identity and 3) an event. Standards of conduct include rules, regulations, codes of conduct and social norms. Identity encompasses roles of the pharmacist and qualities that are applicable to that role (i.e., patient-centred care). Events are units of action and their consequences that require evaluation. If one of these points breaks down or is ill defined, then professional responsibility cannot be attained. Planas and colleagues¹⁰ examined the validity of pharmacists' perceived responsibility based on drug therapy outcomes and confirmed that the Triangle Model of Responsibility represented these perceptions.

Psychosocial theory defines confidence as a combination of 4 factors: practice experience, personal effort, amount of relevant information available and the act of decision making.¹¹ Evidence supports the notion that high levels of the first 3 variables (experience, personal effort and information) dictate success and therefore *confidence* in future decision making.¹²

As a comparison, the concepts of responsibility and confidence in decision making are well documented within the practice of medicine.¹³⁻²⁰ We hypothesized that this insufficient confidence/responsibility phenomenon within pharmacy is multifaceted.

The primary objective of this exploratory qualitative research was to identify the barriers that pharmacists believe bias against the development of confidence and responsibility in clinical practice. Currently, there is a paucity of evidence to suggest why these trends occur; therefore, the nature of this research was exploratory.

Methods

This qualitative research project was conducted at the University of Toronto, Faculty of Pharmacy, in October 2012. For logistics reasons, convenience sampling methods were used.

Twenty-nine practising pharmacists in Toronto, Ontario, and Winnipeg, Manitoba, were asked to participate via e-mail. The initial contact e-mail outlined the objectives of the research and provided the option of a written response or a semi-structured live interview (face-to-face, Skype or phone call). Selection of participants included pharmacists known to the researchers. The goal was to represent a variety of patient care practice settings, despite a small sample size, and to choose academic mentors with several years of practice experience who are active in the pharmacy community.

After confirmation of participation, a 7-item questionnaire (Table 1) was used as a framework for interview or was distributed via e-mail for written response. Questions were based on the central themes of responsibility and confidence within pharmacy and, as a comparator, how these themes differ from physicians' practice. Ethics approval was obtained from the University of Toronto's Research Ethics Board.

Confidentiality of responders was maintained by assigning a letter to each participant. For live interviews, the interviews were recorded using a digital recorder or recording software through Skype. The recordings were subsequently transcribed. Once all interviews (written and verbal) were complete, responses to each survey question were compiled together for the purpose of identifying common themes.

Results

Eighteen pharmacists responded to interview questions (62% response rate); 3 (16.7%) in-person interviews, 3 (16.7%) over-the-phone/Skype interviews and 12 (66.7%) written responses. Eleven candidates did not respond to the initial recruitment e-mail. Three (16.7%) participants were BScPharms, 8 (44.4%) were BScPharms and PharmD students, 4 (22.2%) were BScPharms and PharmDs, 2 (11.1%) were BScPharms, PharmDs plus a fellowship and 1 (5.6%) was a BScPharm, PharmD and medical student. In terms of practice sites, 6 (33.3%) represented community practice in community pharmacies or family health teams, and the remaining 12 (66.7%) represented hospital pharmacy practice. Nine (50%) participants were affiliated with an educational institution.

Recurrent themes from the interviews were identified and divided into 6 main topics. Table 2 provides sample quotations from participants.

TABLE 1 Questions for pharmacist interview session

1. Describe the perceived differences between pharmacists and physicians as they pertain to clinical decision making. Why do these differences occur?
2. What does the word *responsibility* mean to you in the context of a pharmacist's responsibility?
3. At the end of your pharmacy education, did you feel you could take responsibility for your patients and make confident decisions? Why or why not?
4. As a practising pharmacist, what makes you confident to make clinical decisions?
5. Can confidence and/or responsibility be taught? If so, what courses or teaching strategies do you think would be helpful in the curriculum to facilitate this type of learning?
6. Do you think moving to an entry-level PharmD program will give pharmacists a greater sense of responsibility/confidence? Why or why not?
7. Do you have ideas or suggestions on how this issue should be investigated/studied further?

Quotations were selected based on representation of the themes discussed below.

Hierarchy of the medical system

Three participants directly acknowledged the hierarchical structure of the medical team as a barrier to gaining responsibility and confidence, and 2 others felt that "asking permission" for clinical decision making was necessary to make decisions. Pharmacists felt that they did not have a "place" in the hierarchy and therefore could not take responsibility for their patients. In addition, pharmacists did not feel responsible for their decisions due to the fact that pharmacists cannot prescribe.

Role definitions

Several participants voiced a concern that the public views the pharmacist as a "pill dispenser" rather than a clinical decision maker. Hospital pharmacists viewed their own role as

MISE EN PRATIQUE DES CONNAISSANCES

- Les pharmaciens hésitent à assumer des responsabilités et manquent de confiance dans le processus décisionnel clinique. Peu de données existent pour expliquer ces conclusions.
- Cette étude qualitative, regroupant 18 pharmaciens, a permis de cerner 6 obstacles au développement de la confiance et à la prise de responsabilités.
- En définissant et en étudiant ces obstacles, il est possible de modifier le programme d'études et la pratique des pharmaciens.

"information gatherer and disseminator" versus responsible clinician. Participants felt the role of the pharmacist has not been clearly defined to the public or other health care professionals. Therefore, the educational background of the pharmacist goes unappreciated and unrecognized. Overall, role definition of clinical confidence and responsibility were characterized as underdeveloped.

Evolution of responsibility

By nearly unanimous response, pharmacists did not feel they were prepared for taking responsibility for their patients and were not confident in clinical decision making after their entry-to-practice education. Pharmacists who continued their education through a hospital residency, Doctor of Pharmacy degree program or through practical experience expressed an increased feeling of responsibility and confidence. Exposure to new and challenging situations that forced pharmacists into clinical decision-making activities built confidence and responsibility. Most pharmacists felt that the medical model of graduated responsibility through clerkship and residency with increased amounts of hands-on experience would better prepare pharmacy students for clinical practice.

Ownership and confidence building

Pharmacists commented that to build confidence, ownership of decision making and accountability for those decisions must take place. Until pharmacist prescribing is initiated, sense of ownership and responsibility will not thrive. In addition, several pharmacists suggested that faculty should be teaching and assessing accountability in pharmacy education. Participants thought that accountability for decisions would promote responsibility and

TABLE 2 Themes and supporting quotations from pharmacist interviews

Theme	Quotations	No. of participants who commented on theme
Hierarchy of the medical system	"We haven't necessarily capitalized on training opportunities to have (pharmacists) take responsibility for a final decision. Some of it is the hierarchy of the medical field and health care . . . the pyramid of hierarchy has always sort of been there; we are the people who support the physician's care. We'll give you lots of information but at the end of the day, <i>you</i> are the provider."—Participant C "I don't think pharmacists at this point in time are really ever allowed to make 'clinical decisions.' Pharmacists can't write orders and can't really initiate much on their own without asking 'permission' from the physician or the medical resident."—Participant H	5
Role definitions	"Pharmacists have traditionally been looked upon by the public as the business person behind the counter of their local pharmacy. Pharmacy is a business where the bottom line is a major focus and hence we have become a service provider rather than a clinical professional. I also believe that the physician is looked at by the public as the person with all the power and knowledge because an appointment is made with your physician, you have a private meeting with your physician and they can then diagnose and 'solve' the problem."—Participant E "[The pharmacist's] decision-making process is much more of an information-gathering, sharing of the information and, if forced to make a decision and a recommendation, will pick an option. But it is not natural or within their comfort zone, at least initially as clinicians, to say this is what <i>I think</i> we should do."—Participant K	16
Evolution of responsibility	"During each transition, the medical students gain more patient responsibility but they also become mentors to other students. The medical students are forced into leadership roles during their rotations. In contrast, pharmacy students are students until they become interns (for a brief period of time) and then practitioners. I believe pharmacy students are not incrementally given the responsibility during their training to become confident practitioners."—Participant G "I think the sense of responsibility came over time. I always felt responsible for medication leaving the pharmacy (afraid of dispensing errors occurring!), but really began to feel direct responsibility for patient outcomes in PharmD school."—Participant M "I believe providing students with a degree of personal responsibility in clinical settings would allow them to start making decisions and build their confidence in this regard. . . . I also believe these skills can be enhanced by switching to a model more in line with what is used in education for medical students; having pharmacy students assigned to a more senior student and/or pharmacy resident/preceptor provides a stepwise progression where the individual gains more responsibility over time."—Participant O	18

TABLE 2 (continued)

Theme	Quotations	No. of participants who commented on theme
Ownership of decisions and confidence building	"It all comes down to writing the orders! If you write the order and you see the result of that activity, you become confident! If you're a pharmacy student or pharmacist, and you <i>reactively</i> examine that order and monitor it, you never truly feel that it's yours. Ownership (and thus confidence) is in the hands of 'he who writes the orders!'"—Participant L "The pharmacy profession is more passive in the sense that we traditionally <i>follow</i> the prescription, rather than <i>create</i> it. Therefore, it is easy to fall into the mind-set that even if we do make suggestions, we are not the ones ultimately responsible for the final clinical decision. This could make us more noncommittal or feel less responsibility/accountability."—Participant I	12
Quality and consequences of mentorship	"I think even the clinical rotations reinforce this meek, scared behaviour of pharmacists. The students see their preceptors behaving this way with the team and learn that this is the way that they are supposed to behave as a pharmacist."—Participant H "There's a way to be <i>respectful but assertive</i> instead of <i>respectful and submissive</i>, and I think [respectful and submissive] is the way that pharmacists are taught. Especially, for instance, getting my wording corrected about recommendations so as to not offend the physicians or encroach or threaten them, thinking back now, that is <i>wrong</i>, that is the wrong way to teach pharmacists to do their job."—Participant Q	11
Personality traits upon admission	Physicians, particularly in an acute-care setting, are required to be very efficient problem solvers. They are trained in a culture that values speed, focused decision making, and authority. . . . Additionally, the 'type' of personality that seems to enter medicine, while stereotypical, tends toward the more aggressive, self-reliant individual."—Participant N "I found many students [referring to both medical and pharmacy students] come from basic science, but many pharmacy students stay engrained with medicinal chemistry or biochemistry rather than taking the clinical side."—Participant B	5

clinical reasoning skills. Overall, pharmacists felt that knowledge, experience and continuous education contributed most to building confidence.

Quality and consequences of mentorship

The quality of mentorship received in the undergraduate pharmacy program was identified as a direct predictor of confidence and responsibility upon graduation. Pharmacists exposed to well-rounded mentors advocating for patient-centred care expressed increased confidence in their own decision-making

abilities and willingness to approach greater responsibility. On the contrary, pharmacists who observed meek, hesitant, apologetic mentors learned self-doubt and indecisiveness.

Personality traits upon admission

Some participants stated that pharmacy and medical students are *not* similar at baseline. Some felt that pharmacy students are more likely to identify with absolute sciences rather than to take the "clinical side" of practice. Other participants acknowledged that pharmacists are reluctant to make decisions in clinical grey areas,

whereas physicians are comfortable in these settings. It was hypothesized that this innate discomfort with ambiguity may be tempered by earlier introduction of clinical decision making in the pharmacy curriculum.

Discussion

Our goal was to identify common themes pharmacists perceive as barriers to developing responsibility and confidence. Our interviews led us to identify 6 common themes.

There is very limited evidence to support or dispute these data, and further research is required. However, these data suggest that lack of an adequate role definition of the pharmacist may be contributing to the breakdown of the Triangle Model of Responsibility. Without a widely accepted professional “identity,” the pharmacist cannot build the responsibility necessary for advanced clinical practice, and therefore, confidence in clinical decision making falters. These findings are consistent with previous research by Rosenthal and colleagues.⁷

These data could be used to initiate several future research projects. The practical application of overcoming barriers through educational strategies and curriculum development/modification is substantial. Many participants offered suggestions as to how these barriers could be “fixed” by concentrating efforts at the undergraduate level. In addition, many participants also expressed the opinion that efforts should be focused on the quality of experiential experiences in terms of preceptor development, assessment and training. A 2013 statement from the Canadian Council for Accreditation of Pharmacy Programs has compiled updated accreditation standards and guidelines that incorporate changes required

for the entry-to-practice Doctorate of Pharmacy curriculum.²¹ These recommendations include improved admissions standards and experiential rotation requirements. Finally, perhaps an observational cohort study of pharmacy and medicine students throughout their educational process would reveal the mechanics of the development of responsibility and confidence.

Although exploratory in nature, this study has several limitations. The researchers are clinical pharmacists/faculty members; therefore, preconceived notions/opinions may introduce bias in data collection and analysis. Pharmacists who were interviewed are not representative of frontline pharmacists, as the majority of pharmacists are community practice based, and therefore these findings could potentially be understated. Interviewees may also have been influenced by researcher behavioural cues. Those who provided written responses had a greater time to reflect upon questions. Due to anonymity and confidentiality issues of sensitive information, grooming of responses may have occurred. This study consisted of a relatively small sample size (although saturation of themes did occur).

Conclusion

In conclusion, our research has highlighted a concerning aspect of pharmacy practice. Significant barriers to the advancement of the role of the pharmacist exist within the culture of pharmacy with respect to professional responsibility and clinical confidence. Through exploratory educational research, we provided a foundation to hypothesize strategies to overcome these barriers in hopes of establishing the role of clinical practice to fulfill the Blueprint’s Vision for Pharmacy.¹ ■

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