Patient attitudes regarding the role of the pharmacist and interest in expanded pharmacist services

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ABSTRACT

Background: Pharmacists are consistently ranked among the most trusted professionals, and research shows high levels of satisfaction with pharmacist services. Studies have also shown that the public is generally unaware of the full range of roles and responsibilities of a pharmacist. The purpose of this study was to explore the public's knowledge and attitudes regarding the role of the community pharmacist and to determine their likelihood of using expanded pharmacist services.

Methods: Adults across Newfoundland and Labrador were surveyed by telephone. Survey questions addressed how frequently participants visited the pharmacy, understanding of duties undertaken by pharmacists, perceptions and attitudes regarding pharmacists as health care professionals, likelihood of using

expanded pharmacist services and participant demographics. Comparisons were made between responses from urban and rural participants and frequent versus nonfrequent pharmacy users, to determine if there were any differences.

Results: The majority of participants were generally aware of what pharmacists do when filling prescriptions; those who visited the pharmacy more frequently appeared to be more informed. Participants indicated they would take advantage of the expanded services suggested, with greatest interest in receiving advice for minor ailment management and prescription refills from pharmacists. Results support the prevailing view that pharmacists are trusted health professionals who should have access to patients' health information to provide best care.

Conclusion: The public is aware of aspects of the pharmacist's role, but opportunities exist to better educate the public on the knowledge, skills and unique professional abilities of pharmacists to support uptake of expanded pharmacist services. *Can Pharm J (Ott)* 2014;147:239-247.

Background

Pharmacists are consistently ranked among the most trusted professionals,¹⁻³ and research indicates a high level of satisfaction with services provided by community pharmacists.⁴⁻⁸ Conversely, studies have also indicated that the public is generally unaware of the full range of roles and responsibilities of pharmacists.^{4-6,8,9} This could explain why satisfaction levels are so high despite evidence that the traditional

model of pharmacy, which centres on the filling and dispensing of medications, does not meet patients' needs—patients may be unaware of services they could be, but are not, receiving.⁷

The pharmacist's scope of practice has expanded significantly in recent years, shifting away from more traditional functions such as medication dispensing and moving towards the offering of services targeted to improving health outcomes, such as minor ailment prescribing,

As pharmacists seek to expand scope of practice and expect remuneration for these services, we must understand the public's views on these issues. Patient demand for access to services can be a catalyst for change; where demand does not exist, we must assess whether this is because there is no perceived need or whether there is a lack of understanding of the pharmacist's ability to meet these needs.

Alors que les pharmaciens cherchent à étendre leur champ d'exercice et qu'ils s'attendent à être rémunérés pour ces services, il importe de comprendre les points de vue de la population sur ces questions. Les demandes de services de la part des patients peuvent être un catalyseur de changement. Cependant, si la demande n'existe pas, nous devons chercher à déterminer si cela est dû à l'absence de besoin perçu ou au fait que la population ne sait pas dans quelle mesure le pharmacien pourrait répondre à ce besoin.

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KNOWLEDGE INTO PRACTICE

- The public is generally aware of what pharmacists do when filling prescriptions; however, there is confusion regarding the identity of pharmacists and pharmacy technicians in the dispensary.
- The public feels comfortable with pharmacists having access to their medical information and believes this is necessary to provide high-quality care.
- Interest in expanded pharmacy services was high for more basic services such as receiving advice on managing minor health problems and for pharmacists being able to renew prescriptions. The lowest interest was in vaccination or health screening and monitoring services, although more than 50% of respondents indicated they would use these services if they were available.
- The public is aware of aspects of the pharmacist's role, but opportunities exist to better educate them on the knowledge, skills and unique professional abilities of pharmacists to support uptake of expanded pharmacist services.

medication reviews, immunizations and strategies to promote medication adherence.¹⁰ In 2008, we conducted a study to explore attitudes of family physicians and community pharmacists regarding the role of the community pharmacist.¹¹ Our findings were consistent with other studies^{12,13} that suggest discordance between these 2 groups in their understanding of the pharmacist's role. However, the patient perspective was not explored in that study.

The purpose of this study was to explore the public's knowledge and attitudes regarding the role of the community pharmacist and to determine the likelihood of the public to make use of expanded pharmacy services.

Methods

A cross-sectional telephone survey of adults residing in Newfoundland and Labrador (NL) was conducted. A literature search identified studies assessing pharmacist-patient relationships and patient knowledge and satisfaction with pharmacy services.^{4-7,9,14-18} The survey questionnaire for this study was derived from a hybrid of relevant questions originating from published studies and questions of interest from the research team. The survey was piloted on a test group and modified based on feedback to improve clarity of questions and length of the survey. Responses from the pilot test group were excluded from data analysis.

To ensure representation from residents throughout the province, a random selection of NL residential telephone numbers, sorted into urban and rural regions, was obtained from InfoCanada, a Canadian supplier of business and consumer data. Approximately 60% urban and 40% rural numbers (as determined by the first 3 digits of the postal code associated with the telephone number) were contacted to reflect the population distribution throughout the province per census data. To maintain inclusiveness, no specific age, income, or homeowner status was sought. To accurately reflect the opinions of the population of NL (approximately 500,000 residents), a sample of 384 completed surveys would be required to provide a confidence level of 95% with a margin of error of $\pm 5\%$. We assumed a response distribution of 50%.

Residents of NL were eligible to participate in the study if they were aged 19 years or older and had filled a prescription or sought advice from a pharmacist in the preceding 12 months. Individuals were excluded if a pharmacist lived in their household. No incentives were offered for participation in the study. The study received approval from the Interdisciplinary Committee on Ethics in Human Research at Memorial University.

Surveys were administered via telephone interview conducted by undergraduate students at Memorial University. Interviewers underwent training in interview protocol, the telephone script and real-time computerized data entry. All interviewers used a standardized telephone script to ask survey questions and entered data directly into a Microsoft Access database using a standard collection form. Informed consent and reasons for refusing participation were recorded. Calls were completed over a 4-week period from July to August 2010.

The survey consisted of 5 sections. Section 1 determined the frequency with which participants visited community pharmacies or sought the pharmacist's advice. Responses were categorized into predetermined frequencies (e.g., more than once a month, monthly, every 2-3 months, etc.) established for each question. Section 2 consisted of statements regarding the pharmacist's role when filling a prescription and asked participants if they agreed, disagreed or didn't know if the various duties described were undertaken by the pharmacist. Section 3 consisted of statements regarding perceptions and attitudes

about pharmacists as health care professionals. Participants indicated if they agreed, disagreed or were neutral regarding each statement. Section 4 asked participants to indicate whether they would take advantage of a list of expanded pharmacist services, by answering yes, no or maybe to each option. Section 5 collected information on participant demographics.

Frequencies, means and standard deviations were used to describe the characteristics of the sample. We wished to determine whether responses differed between participants living in urban or rural areas and between those who were deemed to be frequent pharmacy users or those who were not, as determined by the frequency with which they visited the pharmacy to get prescriptions filled. For the purposes of data analysis, the frequency of pharmacy visits for prescription fills was coded into 2 categories: frequent (visited a pharmacy at least once every 3 months) or infrequent (greater than 3 months between visits). Chi-squared tests were used to compare responses between participants in urban versus rural areas and between those who made frequent versus infrequent pharmacy visits to get prescriptions filled. Data were analyzed using SPSS, version 19.0 (SPSS, Inc., an IBM Company, Chicago, IL).

Results

A total of 1282 calls were answered, yielding 380 surveys completed by eligible and consenting participants living throughout NL, for a response rate of 29.6% (Figure 1, Table 1). Respondents were primarily female (75%), and the mean age

MISE EN PRATIQUE DES CONNAISSANCES

- Le public connaît généralement le rôle du pharmacien dans l'exécution des ordonnances, mais il ne semble pas très bien faire la distinction entre le pharmacien et le technicien en pharmacie dans l'officine.
- Le public est à l'aise avec le fait que les pharmaciens ont accès aux renseignements médicaux et il estime même que cela est nécessaire pour assurer la prestation de soins de haute qualité.
- Le public s'est montré très intéressé par un élargissement des services de base, tels que les conseils sur la prise en charge de problèmes de santé mineurs ou la possibilité pour les pharmaciens de renouveler des ordonnances. Il a toutefois manifesté un intérêt moindre pour la vaccination et pour les services de dépistage et de surveillance, bien que plus de 50 % des répondants aient indiqué qu'ils utiliseraient ces services s'ils étaient offerts.
- Le public connaît certains aspects du rôle du pharmacien, mais il y aurait lieu de mieux le renseigner sur les connaissances, les compétences et les aptitudes professionnelles uniques du pharmacien, afin de favoriser l'utilisation des services élargis offerts par le pharmacien.

was 51.5 years. The distribution of respondents was 65% urban and 35% rural. Most (77%) were frequent users of pharmacist services, and 75% reported they always get their prescriptions filled at the same pharmacy. Respondents from urban areas were more likely to frequent the same pharmacy (87% vs 67% rural, $p = 0.02$), as were regular users of pharmacist services (82% vs 52% for infrequent users, $p < 0.001$).

When asked about the pharmacist's role, most respondents had a good understanding of the steps involved in checking medication

FIGURE 1 Survey sample

*Ineligible if pharmacist in household ($n = 12$) or did not get prescription filled/seek pharmacist advice ($n = 3$).

TABLE 1 Respondent demographics (*n* = 380)*

Descriptor	Result
Sex, <i>n</i> (%)	
Female	285 (75)
Age, years	
Mean ± SD (range)	51.5 ± 15.0 (19-89)
Location, <i>n</i> (%)	
Urban	246 (65.3)
Rural	131 (34.7)
Category of pharmacy visited most often, <i>n</i> (%)	
Independent or locally owned	59 (15.6)
Banner	44 (11.6)
Chain	143 (37.8)
Supermarket or department store	132 (34.9)
Frequency of pharmacy visits to get prescriptions filled, [†] <i>n</i> (%)	
Frequent	292 (77.2)
Infrequent	86 (22.8)
Frequency of using the same pharmacy to get prescriptions filled, <i>n</i> (%)	
Always	284 (75.1)
Usually	80 (21.2)
Sometimes	14 (3.7)

* Not all respondents answered all questions.

[†] Frequency of pharmacy visits was categorized as “frequent” if the respondent visited a pharmacy at least once every 3 months or “infrequent” if the visits were more than 3 months apart.

appropriateness as part of the dispensing process (Figure 2). However, a minority of respondents agreed that the pharmacist tells them what to do when they miss a dose of their medication (43%), or how they will know if their medication is working for them (31.5%). Responses did not differ significantly between urban and rural, except that those in urban areas were more likely to agree that the pharmacist checks for drug interactions (78% vs 67%, *p* = 0.024). Frequent pharmacy users were more likely than infrequent users to agree that the pharmacist checks to ensure the dose is correct (82% vs 66%, *p* = 0.002), checks for drug interactions (78% vs 61%, *p* = 0.003), asks them if they know what the medication is for (77% vs 67%, *p* = 0.022) and provides information on what to do if they miss a dose of medication (50% vs 29%, *p* = 0.003).

Respondents indicated a high level of trust that the pharmacist would keep their health information confidential and feel comfortable

speaking with the pharmacist about their health (Figure 3). There was widespread recognition that the role of the pharmacist involves more than counting pills. Just over half of respondents (58%) agreed the pharmacist was the best person to help them manage side effects, although urban residents were more likely to agree with this statement than rural (62% vs 47%, *p* = 0.024). While the majority indicated they generally know which person behind the counter is the pharmacist, one-third indicated they were often unsure. Not surprisingly, frequent pharmacy users were more likely to know which person is the pharmacist (66% vs 51% for infrequent pharmacy users, *p* = 0.04).

There was overwhelming agreement that pharmacists are viewed as health care professionals and people want pharmacists and doctors to work collaboratively to provide the best care (Figure 4). Respondents were comfortable with pharmacists having access to their medical

FIGURE 2 What does the pharmacist do?

When I have a new prescription filled, the pharmacist:

FIGURE 3 How is the pharmacist perceived? **FIGURE 4** The pharmacist as a health care professional

FIGURE 5 Public interest in expanded services

information and believe those who have access to this information can provide better care.

Results indicate strong support for pharmacist-authorized refills of medications and offering advice for the treatment of minor ailments (Figure 5). The lowest level of interest was for receiving vaccinations or health screening/monitoring services (such as blood pressure monitoring) by a pharmacist, although over half of respondents did indicate they would use these services if they were offered. Those in urban areas were more receptive to pharmacist-offered vaccination services than rural (61% vs 52%, $p = 0.007$). Frequent pharmacy users were more likely than infrequent users to be interested in having a private 30-minute medication review with the pharmacist (72% vs 55%, $p = 0.001$), but no differences were found in the level of interest in other expanded pharmacist services.

Discussion

With the scope of pharmacy practice evolving at such a rapid pace, an evaluation of how pharmacists are perceived by the public and their willingness to take advantage of expanded pharmacy services is needed. We found that the public generally has a good understanding of what pharmacists do and view pharmacists to be trusted health care professionals. There is a desire to receive expanded pharmacy services, although some services are more highly sought after than others. Frequent users of pharmacy services tended to be more knowledgeable about and more interested in expanded services. This suggests that as people have more interactions with pharmacists, they have a better understanding of our role and are more likely to seek expanded

clinical services from their pharmacist. If we are to make substantive gains in this area and create an environment in which enhanced scope of practice becomes routine expected care, our profession needs to build upon the current momentum to create opportunities to educate and demonstrate to the public our unique capabilities.

While there was generally a good understanding of the cognitive process involved in filling prescriptions, fewer than half of respondents indicated that pharmacists tell them how to manage missed doses and monitor drug therapy for efficacy. These are basic education points that can substantially affect adherence and result in suboptimal outcomes for patients if lacking. These data suggest that pharmacists might not be educating patients on these issues as often as they could be. There was also confusion regarding the identity and role differences between pharmacists and pharmacy technicians. This was consistent with findings from a Canadian survey of consumers in 2003,¹⁸ where 34% of respondents indicated they had difficulty knowing which person behind the counter was the pharmacist. Results differed, though, in the percentage of consumers who felt that pharmacists and pharmacy technicians were equally qualified to provide advice about their medications (52% in the 2003 study vs 17% in the present study, Figure 3). This suggests progress has been made in educating the public about the roles of the pharmacist, but efforts are still needed to clarify which individual in the dispensary setting is the pharmacist.

The high level of trust in pharmacists is a consistent finding across many studies, including a 2010 survey conducted by the Alberta College

of Pharmacists, which found a high degree of confidence with the pharmacist having access to their personal information and comfort in talking with the pharmacist about their health.¹⁹ When asked about interest in expanded pharmacy services, like NL residents, Albertans placed high priority on pharmacists being able to refill prescriptions and 89% indicated they would seek the pharmacist's advice on nonprescription medicines, similar to 90% in this study who expressed interest in getting advice from the pharmacist on how to treat minor health problems. In both studies, the lowest level of interest was in receiving immunizations from a pharmacist, at 43% in the Alberta study and 57% in the current study. However, a more recent Ipsos Reid poll indicated that support for trained pharmacists to administer doctor-prescribed vaccines and other drugs has risen, with 88% of Canadians supporting or strongly supporting this service,²⁰ suggesting that the public is getting more comfortable with this expanding pharmacist scope. In 2010, when these data were collected, pharmacists were not administering immunizations. It may be that participants at the time viewed this service as falling more in the domain of physicians or community health nurses, rather than as a potential service that pharmacists could provide. Approximately 60% of respondents indicated an interest in receiving a private medication review and an additional 20% indicated they might be interested. It is noteworthy that we did not ask how many medications the respondent was taking, and several individuals who responded negatively to this question indicated they did not believe they would benefit from a medication review because they were taking only 2 or 3 medications regularly. It may be that those who would benefit most from this service might be more interested than our results suggest.

While this study did not aim to examine attitudes about pharmacist prescribing, 80% of respondents agreed that pharmacists should be able to provide medication refills when the physician is not available. One study from Saskatchewan examined this issue in more depth²¹ and found that, depending on the scenario and type of medication, support for pharmacists renewing prescriptions ranged from 67.8% in the case of someone taking medication for a serious, long-term condition, to 78.9% in an emergency situation, such as someone running out of a

chronic medication or forgetting it at home. There was less support for pharmacists initiating new prescriptions for a newly diagnosed medical condition or altering prescriptions initially prescribed by a physician.²¹ Whether support for pharmacists renewing medications is driven by a comfort level with the pharmacist's specialized knowledge and expertise, or perhaps by a desire for convenience on behalf of the consumer, is unknown.

This study has several limitations. First, the data were captured in 2010 and represent the views of NL residents. Whether the results can be applied to other jurisdictions is uncertain, although our results are consistent with similar studies conducted elsewhere in Canada over the same time period and more recently. Second, as with any survey methodology, there is the possibility of response bias, particularly as we had 4 different interviewers administering the surveys. We attempted to minimize this by using a standardized telephone script, computerized data collection forms and trained callers. However, we did not perform interrater reliability statistics on our data to measure this bias. Finally, the survey tool used was not validated, although it was piloted to determine the time necessary to complete the survey and to assess whether respondents understood the intent of the questions. Feedback from the pilot group was used to revise the study to improve the clarity of questions and shorten the length to a reasonable time for completion.

While it is encouraging that the public appears to recognize that pharmacists do more than count pills, current remuneration models based on dispensing a prescription product do little to promote the specialized knowledge and skills of pharmacists, nor do they provide incentive for pharmacists to engage in expanded services. If we are truly committed to practice change, we must develop and advocate for new remuneration models that acknowledge and reimburse us for our unique abilities and contributions to patient care. Furthermore, many of pharmacists' contributions to improved patient outcomes are more cognitive in nature and are not clearly visible to patients waiting on the other side of the counter, making it difficult for patients to appreciate them. Pharmacists must routinely take advantage of opportunities to

speak with patients about the many functions they perform on their behalf besides the actual preparation of the prescription product. Every patient interaction is an opportunity to educate the public on the knowledge, skills and unique professional abilities of pharmacists and to foster support for expanded pharmacist services that will help ensure our patients achieve optimal health outcomes.

Conclusion

There is a good level of general understanding of the pharmacist's role, but opportunities exist to better educate the public on the knowledge, skills and unique professional abilities of pharmacists to support the uptake of expanded pharmacist services. As familiarity with expanded services increases, it is expected that the demand for these services will also grow. ■

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