CLINICAL REVIEW

PEER-REVIEWED

Ontario family physician readiness to collaborate with community pharmacists on drug therapy management: Lessons for pharmacists

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My interest in this research stemmed from a desire to understand Ontario family physicians' experiences and attitudes towards collaborating with community pharmacists on drug therapy management.

Mon intérêt pour cette recherche découle de l'envie de comprendre les expériences des médecins de famille de l'Ontario et leur point de vue sur une collaboration avec les pharmaciens communautaires en matière de gestion de traitements médicamenteux.

Abstract

Background/Objective: Collaboration between community pharmacists and physicians with respect to drug therapy management occurs relatively infrequently. There has been little research on physicians' views about such collaboration. The primary objective of this study was to assess Ontario family physicians' attitudes and readiness to collaborate with community pharmacists on drug therapy management.

Methods: A 3-page survey instrument inquiring about 3 collaborative behaviours was distributed by fax or mail to a random sample of 848 family physicians and general practitioners across Ontario. Nonrespondents received 2 reminders.

Results: The survey response rate was 36%. Most physicians reported conversing with a community pharmacist about a patient's drug therapy management 5 or fewer times per week, and very few said they used pharmacists as their primary source of medication information. Eighty-four percent reported that they regularly took community pharmacists' phone calls, while 78% reported that they sometimes sought pharmacists' recommendations regarding patient drug therapy. Only 28% reported that they sometimes referred their patients to community pharmacists for medication reviews, with 44% being unaware that such a service existed. Most comments were favourable, typically providing positive examples of collaboration with pharmacists. The most important identified advantage of collaborating with community pharmacists was more accurate medication lists. The main disadvantage identified was that pharmacists are constrained by not having access to key patient information (e.g., diagnosis, lab results, consultant reports). Additional barriers to collaboration reported by physicians included rotating pharmacists and perceived pharmacist interference with physicians' drug therapy plans.

Conclusion: Overall, Ontario family physicians were engaged in limited collaboration with community pharmacists. By making an effort to increase the frequency of their direct professional interactions with physicians, pharmacists can enhance physician awareness of their willingness to provide patient-oriented services, thus facilitating collaboration. *Can Pharm J* 2009;142:184-189.

Introduction

Community pharmacists, both in Canada and elsewhere, have expressed a desire to collaborate with physicians to optimize patient drug therapy.[1-5] Both the Romanow report[6] and the more recent Canadian Pharmacists Association's Blueprint for Pharmacy[7] have supported an expanded role for the pharmacist in drug therapy management.

Nevertheless, pharmacist–physician collaboration appears to occur relatively infrequently in the community setting.[1] Although pharmacists commonly cite physician resistance as a barrier to establishing collaborative relationships,[4,5,8] little research has been done to understand physicians' perspectives.[9-11] The primary objective of this study was to assess Ontario family physicians' attitudes and readiness to collaborate with community pharmacists on drug therapy management. This paper focuses on study findings pertaining to communication between family physicians and community pharmacists, the extent of collaboration between the two, and physicians' perceptions of the advantages, disadvantages and barriers to collaboration. The goal of this paper is to assist community pharmacists in developing collaborative working relationships with physicians by providing them with information on the physician perspective.

Key points

- Most research concerning pharmacist–physician collaboration is focused on pharmacists' views, while little is known about how physicians feel about such collaboration.
- We assessed Ontario family physicians' perceptions of the advantages and disadvantages of collaborating with community pharmacists and physicians' readiness to collaborate with pharmacists on 3 specific behaviours chosen to represent a continuum of collaboration.
- By providing community pharmacists with information on the physician perspective, this research can assist pharmacists in developing collaborative working relationships with physicians.

Methods

The study was approved by the University of Toronto Research Ethics Board.

Study design and participants

We surveyed a systematic random sample of 848 actively practising community-based family physicians and general practitioners in Ontario. The sample was drawn from the 2006 electronic version of the Canadian Medical Directory.[12]

Survey instrument

The 3-page questionnaire assessed physicians' communication with pharmacists, the perceived pros and cons of collaboration and their readiness to engage in 3 collaborative drug therapy management behaviours. Questions about respondents' demographics and an open-ended question inviting additional comments regarding collaboration with pharmacists were also included. Statements about possible pros ($n = 5$) and cons ($n = 4$) of collaborating were accompanied by a 5-point Likert scale to measure degree of perceived importance. Instead of asking physicians whether they collaborated with pharmacists in general, we assessed their readiness to collaborate on 3 specific behaviours chosen to represent a continuum of collaboration: taking pharmacists' phone calls (low-level), seeking pharmacists' recommendations regarding patient drug therapy (mid-level) and referring patients to pharmacists for medication reviews (high-level). For each behaviour, physicians were asked to select from among 4 statements, each representing one of the following stages of readiness to collaborate: precontemplation (not thinking about collaborating), contemplation (thinking about collaborating) and preparation or action (currently collaborating).[13] Behavioural statements for the action stage included a qualifier regarding the frequency of the behaviour. For the mid- and high-level behaviours, this was "sometimes," but for the low-level behaviour, it was "regularly." The purpose of these qualifiers was to achieve the balanced response distributions that were necessary for regression analyses. The questionnaire was pilot tested with a convenience sample of 7 community-based family physicians in Toronto.

Survey procedures

The survey was administered in the fall of 2006. It was sent to participants by fax (70%) or by mail (30%) if a fax number was not available in the Canadian Medical Directory or on the Ontario College of Physicians and Surgeons' website. An introductory letter was followed by the questionnaire and cover letter 1 week later. Nonrespondents received 2 reminders, including a replacement questionnaire with the second reminder. All participants were instructed to return the survey by fax, regardless of the method by which they had received it.

Data analysis

Descriptive statistics for each questionnaire item were calculated using the Statistical Program for Social Sciences (SPSS) version 11.0. Responses to the open-ended question were analyzed independently by 2 researchers.[14] Main themes were compared and differences were reconciled by discussion.

Results

The survey response rate was 36%. Demographically, respondents were similar to the 2007/2008 Ontario population of family physicians/general practitioners,[15] except for a greater proportion being certified by the College of Family Physicians of Canada and having hospital appointment and academic affiliation (Table 1).

Interactions with community pharmacists

Direct communication (telephone or face-to-face) with a pharmacist about a patient's drug therapy

This research was previously presented at the 2007 Canadian Pharmacists Association Conference, Ottawa, Ontario.

TABLE 1 Respondent characteristics compared to the Ontario population of family physicians/general practitioners

Variable	Survey respondents (n = 280)	Ontario population of family physicians/general practitioners* (n = 10,855)
Gender		
Male	65.5%	63.8%
Female	34.5%	36.2%
CCFP certification	66.7%	60.8%
Type of practice†		
Solo	29.3%	30.3%
Group	64.6%	67.2%
Only family physicians/GPs	45.7%	46.3%
Same site	33.9%	
Multiple sites	11.8%	
With other health professionals	18.9%	20.9%
Other	3.9%	2.4%
Practice location		
Urban	83.2%	85.7%
Rural	16.8%	14.3%
Hospital appointment/privileges	81.4%	26.9%
Academic affiliation	29.1%	17.6%
Mean number of years in practice (SD)	20.8 (11.2)	20.7

CCFP = Certificant of the College of Family Physicians of Canada.
* Sources: 2007 National Physician Survey, 2008 Canadian Medical Association masterfile and 2008 College of Family Physicians of Canada membership database.
† Figures may not add up to 100% due to nonresponse.

management was reported to occur 5 or fewer times per week by the majority (70%) of respondents. When all modes of communication were considered, dispensing-related issues (e.g., prescription clarification or drug plan issues), rather than drug therapy management issues (e.g., drug interactions, drug information questions, medication compliance and others), predominated. Only 4% of physicians indicated that they relied on pharmacists as their main source of medication information; the majority (55%) indicated that they relied on the *Compendium of Pharmaceuticals and Specialties.*

Extent of collaboration

Eighty-four percent of physicians reported regularly taking community pharmacists' phone calls, and 78% reported sometimes seeking community pharmacists' recommendations regarding patient drug therapy. Only 28% of physicians reported sometimes referring patients to pharmacists for medication reviews, with 44% unaware that pharmacists could conduct such reviews.

In their narrative responses (Figure 1), several physicians described the extent of their working relationships with local pharmacists. The number of favourable comments regarding collaboration slightly outnumbered the unfavourable ones. Some examples follow.

• I use 1 or 2 local pharmacists regularly as a resource….

• I speak with our pharmacists daily + have no problem seeking their expertise/opinion.

• I find them [pharmacists] an invaluable resource and consult with them frequently.

Physicians also reported positive experiences with particular pharmacists, commenting on their personal qualities or the process of working with them.

• I find our local pharmacists extremely approachable and helpful re. drug therapy management.

• In our area, pharmacists contact us immediately if incompatibility of drugs prescribed needs to be brought to our attention.

Perceived advantages of collaboration

Physicians rated the collective advantages of collaborating on drug therapy management more important than the collective disadvantages (Table 2). Physicians perceived more accurate patient medication lists as the main advantage. An advantage of collaboration not listed on the questionnaire but mentioned in a few open-ended responses was financial savings for the health care system (e.g., detecting double doctoring/excess prescription use, reducing need for specialist referral).

Perceived disadvantages and barriers to collaboration

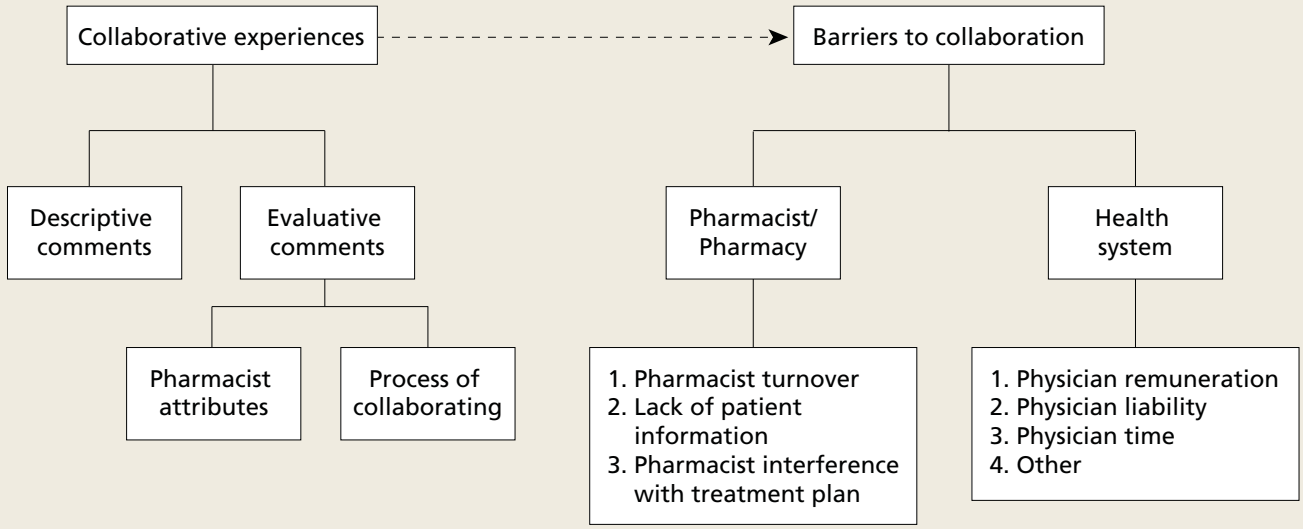
Physicians rated pharmacists' lack of access to patient information, including lab results and diagnosis, as the most important disadvantage of collaborating on drug therapy management (Table 2). This was also the most frequently mentioned disadvantage in the open-ended responses. Some physicians stated that pharmacists' lack of patient information could lead to inappropriate and/or unsafe drug therapy recommendations.

• Pharmacists can be of great value, but if they are not privy to some specifics (labs, diagnosis, consult requests, etc.), they are not able to help safely.

• They [pharmacists] don't examine patients and don't follow bloodwork, etc. I have had several cases where pharmacists misdiagnosed patients and suggested erroneous treatments, thus putting the patient in jeopardy.

A few physicians reported having difficulty establishing working relationships with rotating

FIGURE 1 Themes from responses to open-ended question about pharmacist-physician collaboration



pharmacists, most commonly at chain retailers. As a result, several of them tended to turn to hospital pharmacists for assistance with drug therapy issues. Other physicians mentioned system-related barriers to collaboration, including physician remuneration for collaboration and time to collaborate. Here is an example of a comment about time constraints.

• I think that once we initiate pharmacy reviews, it is going to require meetings, complex reviews — we really don't *have time* — can barely find time for our clinic meetings. I think people terribly underestimate the pressures on family physicians now.

Physicians also expressed irritation and concern regarding their perception that some pharmacists induced nonadherence with medications by communicating information about medication side effects and risks to patients in a manner seen as alarmist.

• I've had pharmacists recommend a patient not take a medication based on the medication's perceived side effect profile or counselling a patient in such a way that the drug's potential side effects are so highlighted that the patient then refuses to take the medication (and I am not notified that the patient then refused the drug.)

• Pharmacists … always tell the patient of the negative aspect of taking the drug but never the benefits, so patients often will not take the drug.

Discussion

Several findings favourable to pharmacist–physician collaboration emerged from this survey of Ontario family physicians. Significant proportions of respondents reported regularly taking community pharmacists' phone calls and sometimes seeking community pharmacists' recommendations. Other favourable findings included the significant number of physicians volunteering comments about good working relationships with pharmacists, the fact that favourable comments about collaboration outnumbered unfavourable ones and the fact that, collectively, the advantages of collaborating on drug therapy management were rated more important than the disadvantages.

There were several indicators in this survey that collaborative working relationships between family physicians and community pharmacists are underdeveloped: most physicians had 5 or fewer conversations a week with a community pharmacist about a patient's drug therapy management, very few used pharmacists as their primary source of medication information and few participated in higher-level collaborative behaviour (referring patients to pharmacists for medication reviews).

The reported infrequency of physicians' conversations with pharmacists about drug therapy management in this study is consistent with a 1997 study in which the majority of Vancouver-area pharmacists interviewed reported a lack of direct communication with physicians.[17] Similar results were obtained in a 1995 survey of UK general practitioners in which 96% of respondents communicated with pharmacists 5 or fewer times per week.[18] The lack of direct communication presents a significant barrier to the development of collaborative relationships.[19,20]

The low proportion of physicians referring their patients to pharmacists for medication reviews (high-level collaboration) is at least partially explained by the fact that many were not even

TABLE 2 Physicians' perceptions of the advantages and disadvantages of collaborating with community pharmacists on drug therapy management

Advantages (pros)	Mean importance* (SD)
More accurate patient medication lists	4.1 (0.9)
Availability of a health professional to monitor the safety and effectiveness of patients' drug therapy	3.5 (1.2)
Availability of an impartial drug information source	3.3 (1.2)
Ability to delegate time-consuming tasks (e.g., medication reviews)	3.2 (3.0)
Availability of a health professional familiar with clinical guidelines for instituting drug therapy	3.0 (1.2)
Disadvantages (cons)	
Pharmacists lack full information about the patient (e.g., diagnosis, lab test results)	3.4 (3.5)
Interaction with the pharmacist takes time away from other patient care activities	2.7 (1.2)
Encroachment of the pharmacist on the physician's field of expertise	2.1 (2.0)
Increased liability	2.0 (2.0)

* On a scale of 1 (not at all important) to 5 (extremely important)

aware that community pharmacists could conduct medication reviews. Information reported by Vancouver-area pharmacists in 1997 is consistent with this finding: 55% agreed with the following statement: "Physicians are unaware of the extended role(s) of pharmacists."[17] The recent introduction of Ontario's MedsCheck program,[21] whereby the provincial drug plan remunerates pharmacies for conducting medication reviews, is likely to have increased physicians' awareness. Nevertheless, pharmacists can further enhance physician awareness of expanded pharmacist roles by making an effort to increase the frequency of their direct professional interactions with physicians and to inform physicians in their areas about the patient-oriented services they are willing to provide. Professional pharmacy organizations can facilitate pharmacist–physician collaboration by working with medical associations to implement regular joint meetings between pharmacists and physicians at the local level (also known as quality circles). Such meetings are standard practice in the Dutch system, where community pharmacists and general practitioners meet regularly to exchange drug therapy information and develop local guidelines.[22] Both pharmacists and physicians gain continuing education points for participating. Some Dutch pharmacists commented that such meetings enhanced their communication with physicians and provided an opportunity for relationship development.[17]

Respondents in the current study saw pharmacists' lack of access to patient information as the main disadvantage to pharmacist–physician collaboration. Information obtained through interviews of Florida pharmacists is consistent with this finding: access to patients' medical information was perceived to be a critical aspect of pharmaceutical care.[23] The Canadian Pharmacists Association has also recognized the importance of access to patient information for the management of drug therapy. Its Blueprint for Pharmacy specifies the advancement and implementation of information and communication technology as 1 of the 5 key strategic directions for the future of pharmacy.[7] An experimental initiative to address this problem is the EMRxtra project in Ontario, a joint venture of Group Health Centre and the Ontario Pharmacists Association that is sponsored by Canada Health Infoway. The project electronically connects community pharmacies in the city of Sault Ste. Marie to the patient health records of a local health centre, with the purpose of reducing medication errors.[24]

Results from our survey must be interpreted in light of its low response rate (36%). Thus, the generalizability of its findings to the population of Ontario family physicians is not known, although the similarity between these 2006 survey respondents and the 2007/2008 Ontario population of family physicians on most demographic characteristics provides some reassurance that the results are applicable to all family physicians in the province.

Another point relevant to generalizability is that a significantly greater proportion of survey respondents compared to the 2007/2008 Ontario family physician population had hospital privileges and academic affiliation. Hence, they may have been more likely to collaborate with pharmacists given their likely exposure to pharmacist expertise in the hospital and/or potentially greater knowledge of the research literature regarding the benefits of interprofessional care.

Conclusion

This study has shown that Ontario family physicians are more likely to engage in low- to mid-level collaborative behaviours with community pharmacists, and that most physicians have drug therapy management conversations with pharmacists 5 or fewer times per week. Taken together, the results suggest that collaborative relationships

between family physicians and community pharmacists are underdeveloped. That being said, physicians weighed the pros of collaborating more than the cons and some physicians offered very favourable comments about their working relationships with pharmacists. In order to further relationship development, pharmacists need to increase the frequency of direct professional interactions with physicians that demonstrate their drug therapy expertise. Pharmacist professional associations could assist by working with their medical counterparts to develop infrastructure for interprofessional continuing education development programs. ■

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Points clés

• La plupart des recherches sur la collaboration pharmaciens-médecins s'intéressent surtout à l'avis des pharmaciens. Il existe peu d'information sur ce que les médecins pensent de cette collaboration.

• Nous avons évalué les avantages et les inconvénients perçus par les médecins de famille de l'Ontario relativement à la collaboration avec les pharmaciens communautaires, ainsi que l'enthousiasme des médecins à collaborer avec les pharmaciens sur 3 comportements choisis en vue de représenter la continuité de la collaboration.

• En donnant des renseignements sur le point de vue des médecins aux pharmaciens communautaires, cette recherche peut aider ces derniers à mettre en place des relations de travail communes avec les médecins.

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