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Title	Patient, family physician and community pharmacist perspectives on expanded pharmacy scope of practice: a qualitative study
Authors	Maoliosa Donald MSc, Kathryn King-Shier PhD, Ross T. Tsuyuki BSc PharmD MSc, Yazid N. Al Hamarneh, BSc PhD, Charlotte A. Jones MD PhD, Braden Manns MD MSc, Marcello Tonelli MD PhD, Wendy Tink MD, Nairne Scott-Douglass MD PhD, Brenda R. Hemmelgarn MD PhD
Reviewer 1	Dr. Christine Leong BSc PharmD
Institution	College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Man.
General comments (author response in bold)	1. A. Introduction: 2nd paragraph: recommend elaboration on the types of facilitators and barriers to implementing pharmacist's expanded role in routine patient care reported previously in literature. B. Suggest including information on the proportion of Alberta/Canada pharmacists who engage in expanded scope of practice and the types of expanded roles in place for a variety of practice settings (e.g., primary care/ambulatory, other chronic disease states…). **As requested we have edited the second paragraph in the background section to include the barriers and facilitators which were reported in the literature. We have also included a few examples of the services which pharmacists have been providing across the country. Data on the number of pharmacists who engage in expanded scope of practice is not published, although we estimate that about 1000 pharmacists (about 30% of total) in Alberta have their additional prescribing authorization (as a measure of expanded scope).** **The current pharmacy legislation has provided pharmacists with an opportunity to overcome the 'classic' barriers (time constraints, limited remuneration models and low public expectations) to implementing the expanded scope of practice (3). Indeed, pharmacists across the majority of the Canadian provinces have been providing medication management, common ambulatory conditions and Immunization services as well as changing drug dosage, formulation and renew/extend prescription for continuity of care since the launch of this legislation.** **We have also added a section in the results section about patients' satisfaction with the services that they have received in order to capture the patient angle.** **Patient satisfaction** **Patients reported appreciation for care from a team, highlighting the pharmacist's pivotal role. They indicated that pharmacists allowed them to take more responsibility in their care as well as spent time explaining their treatment plan and answering questions. Patients appreciated the compassion that pharmacists demonstrated.** 2. Methods: Data collection: were the 4 participants in the pilot community pharmacists only? **Yes, the 4 participants in the pilot were community pharmacists. This has been clarified in the methods section.** **The interview guide for each participant group was developed based on a review of the literature (2, 10) and in consultation with the research team (Supplementary Material), and was piloted with 4 community pharmacists.** 3. Methods: Data analysis: Please include the software program used for content analysis (e.g., Atlas.ti?) if applicable. **Computer-assisted qualitative data analysis software was not used for the analysis. Rather, as is common in conventional qualitative content analysis, the three interviewers independently and manually categorized themes based on a conceptual framework of care for optimizing scopes of practice. The details of the analysis have been outlined in the analysis section in our original submission.** **Conventional qualitative content analysis (10) was used to describe perceptions regarding CPs' care of patients with CV risk factors. The three interviewers (MD; JP and PL) independently categorized these perceptions based on a conceptual framework of care for optimizing scopes of practice. The framework identifies factors at 3 health system levels: macro (legal and regulatory, education and training, economic and political); meso (institutional, technological and community); and micro (team composition and professional cultures) (11). Transcripts were read to acquire an overall sense of the phenomenon of interest. Words and phrases that captured key concepts were highlighted to create codes, which identified evolving themes and subthemes. Data analysis and collection were done iteratively so that interview questions could be altered to enhance clarity of the emerging**

	themes. Final themes were determined through a series of discussions with the research team members; consensus on final themes was achieved. 4. Interpretation: Has there been any previous studies that described the perspective of patients/pharmacists/family physicians regarding this topic in other jurisdictions for comparison? **To the best of our knowledge, no prior studies have included the perspective of all three groups (patients, pharmacists and family physicians). The relevant literature reflecting the perspectives of the pharmacists and family physicians has been included in our original submission.** 5. Interpretation: Limitation – pharmacists represented majority of opinions and opinions may be skewed by providers and patients who either participated in RxEACH or willing to offer opinion on topic, which may be quite different to those who did not engage in this study. All of the 12 FP's had greater than 10 years of practice experience, any thoughts on how the "newer" FP's might be more receptive to interprofessional collaborative practice / expanded scopes of the pharmacists - not sure in Alberta, but some university/health professional programs are increasing the interprofessional component in the program especially in recent years and may have very different perspectives on this topic than those who have practiced >10 years – just a thought for comment for relevancy in the coming years. Suggest including a list of potential next steps to address the perspectives outlined in this paper. **We analyzed the responses of each group individually so that each group will have an equal voice regardless of the number of participants. We agree that the results of this study are most generalizable to those who are similar to the respondents, which in this case includes family physicians who have been in practice for at least 10 years. We are not able to comment on perceptions of family physicians who have been practicing for less than 10 years, and have noted this as a limitation. We have addressed this in the interpretation section under limitations.** **As is common in all studies of this nature, the results obtained here are representative of those who responded and completed the interviews. The family physicians who participated had all been in practice at least 10 years. The extent to which this incorporates the perceptions of family physicians who have just completed their training and are starting their practice cannot be determined.** **A detailed discussion of potential next steps is beyond the scope of the current paper, although we have included a statement in the concluding paragraph outlining the key stakeholders who must be engaged. We have also cited a recent publication which addresses these issues in detail.** **This will require collaboration and input from professional associations, regulatory bodies, practicing pharmacists, family physicians and the patients (2).** 6. Figure 1/Table 1. Less than half of CPs identified from RxEACH participated in interview – do we have an idea of how this sample compares to the general population of community pharmacists in Alberta (in terms of some of the characteristics listed in Table 1). **Table 1 indicates that our sample is representative of the pharmacists in Alberta in all characteristics presented in the table. (Guirguis LM, Makowsky MJ, Hughes CA, How have pharmacists in different practice settings integrated prescribing privileges into practice in Alberta? A qualitative exploration. J Clin Pharm Ther 2014;39:390-8.)** 7. Table 1. Community Pharmacist Characteristics – do we have an idea of how "busy" the community pharmacy practice is by number of prescription dispensing per day (e.g., <100 vs 300 vs >500 etc). This info could be useful in understanding the perspective of pharmacists working in less or more busy environments and the feasibility of implementing a practice with expanded roles. **We did not collect information that would indicate how busy the community pharmacist practice was.** 8. Table 2. Do we have an idea of number of co-medications/co-morbidities or how complex patient is. **We have added the types and frequency of comorbidities for the patients to Table 2.**
Reviewer 2	Ms. Candace Necyk MSc BSc
Institution	Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton, Alta.
General comments (author response in	1. Why were pharmacists tasked with identifying patients who participated in the RxEACH study (as opposed to being sent a letter through the study itself, if

bold)	demographic information was available)? Could this be a potential for bias that should be discussed since it is unknown how pharmacists decided who to contact to participate and who not to? **Our ethics approval permitted the pharmacists, who also recruited the patients to the randomized trial, to contact them for the purposes of this qualitative study. As researchers we did not have any contact with patients in the trial – the community pharmacists were the only members of the team who had contact with patients. Therefore, our ethics approval required that the pharmacists initiate the contact with the patients to determine their interest in participating in this qualitative study. Patients who were interested were subsequently contacted by the research team. We have clarified this in the methods section.** **A letter was sent to CPs inviting them to participate and to identify patients and FPs who were also involved in the study (to achieve a triad of patient, FP and CP perspectives). After being approached by the pharmacists, interested patients and FPs were sent a letter of invitation describing the study and interview process.** **The reviewer is correct that this may result in a potential bias if pharmacists only selected patients who were satisfied with the expanded scope of practice. We have included this in the limitation section.** **Patient participants were identified by the pharmacists, as requested by our ethics board. While pharmacists may have selected patients who were more satisfied with the expanded scope of practice, the wide range of patient responses suggests this is unlikely.** 2. Who were the other 5 patients that were not part of the RxEACH trial? (1 triad, 8 dyads=9 patients but n=14). How were they selected? **To clarify, all patients were part of the RxEACH trial, 5 of the 14 patients were not part of the triad or dyads (i.e. not part of the family physician or community pharmacist unit). We have clarified this in the results section.** **One triad of participants (patient, FP and CP),8 dyads (patient and CP) and the remaining CPs and patients were individuals who were not part of a FP or CP unit from the RxEACH trial were interviewed.** Physicians/patients: 3. I'm curious if the snowball sampling strategy to identify other FPs was part of the original plan or decided on after so few physicians were recruited through pharmacists? Why was only one physician from the RxEACH study identified by the pharmacists? Was there bias involved as to who was not identified as a potential participant? **The reviewer is correct that we incorporated the snowball sampling strategy due to the difficulty in recruiting FPs through pharmacists. As the reviewer indicates, we speculate that this could be related to the barriers identified in the study regarding communication and lack of role clarity. We have incorporated this into the study limitations.** **While attempts were made to include FPs who were involved in the care of patients who participated in the RxEACH trial (7), contact and consent were obtained from only one physician who fulfilled this criterion. The remainder of the FPs were identified through a purposive, snowball sampling technique. However, all interviewed FPs were practicing in a setting that included patients at high risk of CVD, and thus their perspectives would be relevant and representative of FPs, albeit those who have not had the benefit of seeing firsthand the experience of patients managed through the RxEACH trial.** 4. How were physicians and patients approached once identified? Also by a letter as the pharmacists were? This should be clarified. **After being approached by the pharmacist, interested individuals were sent a letter of invitation. This was clarified in the methods section.** **A letter was sent to CPs inviting them to participate and to identify patients and FPs who were also involved in the study (to achieve a triad of patient, FP and CP perspectives). After being approached by the pharmacists, interested patients and FPs were sent a letter of invitation describing the study and interview process.** 5. Who was involved in pilot testing? Were all 3 groups represented? **Community pharmacists were involved in the pilot testing. This has been clarified within the methods section. The interview guide was developed by the research team, which included family physicians, pharmacists, and researchers.** **The interview guide for each participant group was developed based on a review of the literature (2, 10) and in consultation with the research team (Supplementary Material), and was piloted with 4 community pharmacists.** 6. Who were the key informants used to identify the FPs? Were they the pharmacists

already contacted to participate/identify participants or other informants?
Key informants included family physicians who were members of the research team, and then subsequently the FP participants identified other potential participants, as per the snowball sampling methodology. This has been clarified in the results section.

One FP was identified by a CP, while the other 12 FPs (who care for patients at high risk for CVD but were not involved in the RxEACH trial) were identified by key informants (members of the research team, and then subsequent FP participants).

Interpretation
7. While you used the RxEACH study as a basis for this qualitative study, you refer to patients with complex/chronic conditions throughout the paper and interview. In the interpretation section, you bring it back to discuss just enablers and barriers for providing care to patients at high risk for CVD. I think this needs to be consistent throughout. Were you only collecting data around care/practice for patients at high risk for CVD or for all patients with chronic diseases?
We apologize for the confusion. The reviewer is correct that the patient population referred to are those at high risk for CVD. We have clarified this in the background section.
As a secondary objective of the RxEACH trial we sought to identify perspectives of patients, family physicians (FPs) and community pharmacists (CPs) regarding pharmacists' identification and management of complex patients (namely adults at high risk for CVD) to identify strategies to facilitate implementation of the pharmacist's expanded role in routine patient care.

Limitations
8. Again, you point out here that the FPs interviewed practiced in settings with patients at high risk for CVD, where earlier in the paper (results section) you referred to these patients as complex patients when describing the physicians you recruited. Complex includes a wide array of conditions, not just CVD, so this needs to be clarified throughout. I understand that patients at risk for CVD are in fact complex, but the difference in wording is confusing as the reader is unsure whether participants are just speaking to CVD patient care or all complex care. For example, in the abstract, the methods section focuses only on care for patients at risk for CVD, but the interview questions all generally ask about chronic diseases in general, not CVD specifically, and the results section of the abstract again goes back to using complex patients as the language. In the sustainability related question, on the other hand, they are asked about innovative ways to manage cardiovascular risk in the community setting. We could argue that the sustainability related question, and related answers, can only be used in the context of CVD and not other chronic diseases since it was worded this way.
As noted in the comment above, patients included were those at high risk for cardiovascular disease. We have made the relevant changes throughout the text.

Minor edits
9. Page 25 line 34: should this be" learning", not "leaning"?
Corrected

10. Page 26 line 18: should this be "things", not "thins"?
Corrected

11. Page 28 line 22: The closer they (pharmacist) "ARE" the more regular the interaction..? Add the word "are" to this sentence as capitalized above?
Corrected

12. Page 28 Line 38 (left paragraph/quote): should this be "couldn't, not "could"? Also, "With only ONE person"…? Add the word "one"?
Corrected

13. Page 8 line 29: should there be a hyphen between 3 and participant? Later on page 10 the second paragraph starts the same but doesn't have the hyphen.
Corrected

14. Page 11 line 27: I would take out the word "both" in the second sentence of that paragraph. It sounds confusing when read.
Corrected

15. Page 11 line 51: "creating "a" registry", not "as"?
Corrected

16. Closing Question: for patients too or just CPs and FPs? States "in your practice".

	We have modified the last paragraph in the manuscript to incorporate patients, as suggested. **This will require collaboration and input from professional associations, regulatory bodies, practicing pharmacists, family physicians and patients (2).** 17. Page 9 line 4: would be helpful to list what services are provided to patients by both CPs and FPs in which they both receive compensation for (are there key services that are of concern? I.e. care plans? This was noted in the quotations) **We have provided an example in the results section, as noted by our participants, (i.e. comprehensive annual care plan for chronic disease management) where both CPs are FPs may potentially receive compensation. Some FPs and CPs felt that the current model of care did not support co-management, and that there was potential duplication of services and "potential waste of health care dollars". They thought both parties should not be compensated for the same service provided to a patient (i.e. comprehensive annual care plan for chronic disease management).**