Perception and Implementation of Continuous Quality Improvement in Pharmacy Practice in Manitoba

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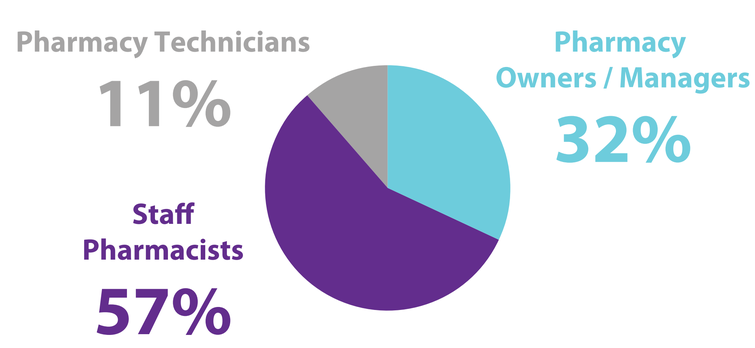
Objectives

- Safety Improvement in Quality, or Safety IQ, is a standardized continuous quality improvement (CQI) program in Manitoba designed to prevent medication incidents (MIs) from happening in community pharmacies.
- The objective of this study was to explore the current perceptions, benefits, barriers, and experience of CQI programs in Manitoba community pharmacies prior to the launch of the province-wide Safety IQ initiative.

Methods

- We administered a 28-item online questionnaire to all registered pharmacy professionals in Manitoba through support from the pharmacy regulatory authority, College of Pharmacists of Manitoba.
- Responses were collected through a 5-point Likert scale (from 1 = strongly disagree to 5 = strongly agree) and open-ended questions.
- We performed descriptive statistics and qualitative thematic analysis, accordingly, on the collected data.

Figure 1 Responses – Participants



* 5 Strongly Agree; 4 Agree; 3 Neither Agree Nor Disagree; 2 Disagree; 1 Strongly Disagree

Conclusions

- There is a lack of standardized, formal CQI process in place in Manitoba pharmacies. Implementation of CQI programs currently vary widely between pharmacies.
- Despite concerns such as increased resource requirements, pharmacy professionals appear to be open and supportive of a formal CQI program.
- Overall, this research provides support for the implementation of a standardized community pharmacy CQI program in Manitoba, such as Safety IQ, to advance patient and medication safety.

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Results

- We collected 125 responses (Figure 1). Response rate was 8.05% (out of 1,523 practicing pharmacists and 30 listed technicians in Manitoba).
- Examination of the perception of CQI (Table 1) found that pharmacy professionals generally agreed that a CQI program should:
  - Enable rapid communication of MIs across pharmacies
  - Engage all staff in MI reporting and learning
  - Identify common and severe MIs
- Analysis of perceived benefits of CQI (Table 2) revealed that pharmacy professionals agreed that a CQI program would:
  - Allow for discussion of errors in a supportive environment
  - Increase understanding of factors that contribute to errors
  - Enhance awareness of MIs when dispensing
  - Improve sharing of MI trends across pharmacies
  - Allow staff to learn from mistakes in the pharmacy
- Assessment of barriers to CQI program implementation (Table 3) found that pharmacy professionals:
  - Neither agreed nor disagreed that additional staff education and training, apprehensiveness with MI reporting, or cost would be barriers to implementation.
  - More strongly agreed that increase staffing requirements and time would act as program barriers.
- Of those who implemented a CQI program, common elements include documentation of MIs, internal reporting, discussion with staff, and workflow changes.
- Pharmacy owners and managers were the most commonly listed personnel responsible for CQI program coordination, illustrating the crucial role that management plays in supporting CQI.
- Pharmacy professionals were unsure of where to look for resources on CQI, indicating an educational need. The College of Pharmacists of Manitoba and the Institute for Safe Medication Practices Canada were perceived as the next most common sources for additional guidance on CQI.

Table 1 CQI Perception

	Mean*
Community pharmacy CQI programs should enable community pharmacies to widely and rapidly communicate medication incident (MI) details (e.g. contributing factors, outcomes) across multiple pharmacies, given the communicated information will be anonymized, even if they are business competitors.	3.93
Community pharmacy CQI programs should engage all staff, including those working at multiple pharmacies (e.g. relief pharmacists), in MI reporting and learning.	4.28
Community pharmacy CQI programs should identify common and severe MIs occurring and make changes to prevent similar scenarios in the future.	4.40

Table 2 CQI Program Benefits

	Mean*
A CQI program will allow my pharmacy to openly discuss errors in a supportive and blame-free environment.	4.08
A CQI program will increase my understanding of how workflow and dispensing processes can contribute to or help to mitigate (or reduce) errors.	4.16
A CQI program will improve my awareness and caution against MIs when dispensing medications.	4.23
A CQI program will allow me to explore MI trends occurring across pharmacies and assess the likelihood of a similar error occurring in my pharmacy.	4.24
A CQI program will allow to learn from the mistakes that have occurred within the pharmacy.	4.27

Table 3 CQI Program Barriers

	Mean*
Additional staff education and training (e.g. familiarization of online medication incident reporting systems) is a barrier to the implementation of a CQI program at my pharmacy.	3.20
Apprehensiveness with MI reporting (e.g. perceptions of negative business implications) is a barrier to the implementation of a CQI program at my pharmacy.	3.45
Cost (e.g. subscription to an online medication incident reporting system) is a barrier to the implementation of a CQI program at my pharmacy.	3.45
Increased staffing requirements/involvement (e.g. MI reporting and discussion in addition to regular responsibilities) is a barrier to the implementation of a CQI program at my pharmacy.	3.60
Time (e.g. time to report MIs or having a staff meeting to discuss MIs) is a barrier to the implementation of a CQI program at my pharmacy.	3.92