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Original Research

Challenges of standardized continuous quality improvement programs in community pharmacies: The case of SafetyNET-Rx

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Abstract

Background: Research on continuous quality improvement (CQI) in community pharmacies lags in comparison to service, manufacturing, and various health care sectors. As a result, very little is known about the challenges community pharmacies face when implementing CQI programs in general, let alone the challenges of implementing a standardized and technologically sophisticated one.
Objective: This research identifies the initial challenges of implementing a standardized CQI program in community pharmacies and how such challenges were addressed by pharmacy staff.
Methods: Through qualitative interviews, a multisite study of the SafetyNET-Rx CQI program involving community pharmacies in Nova Scotia, Canada, was performed to identify such challenges. Interviews were conducted with the CQI facilitator (ie, staff pharmacist or technician) in 55 community pharmacies that adopted the SafetyNET-Rx program. Of these 55 pharmacies, 25 were part of large national corporate chains, 22 were part of banner chains, and 8 were independent pharmacies. A total of 10 different corporate chains and banners were represented among the 55 pharmacies. Thematic content analysis using well-established coding procedures was used to explore the interview data and elicit the key challenges faced.
Results: Six major challenges were identified, specifically finding time to report, having all pharmacy staff involved in quality-related event (QRE) reporting, reporting apprehensiveness, changing staff relationships, meeting to discuss QREs, and accepting the online technology. Challenges were addressed in a number of ways including developing a manual-online hybrid reporting system, managers paying staff to meet after hours, and pharmacy managers showing visible commitment to QRE reporting and learning.
Conclusions: This research identifies key challenges to implementing CQI programs in community pharmacies and also provides a starting point for future research relating to how the challenges of QRE reporting and learning in community pharmacies change over time.

Keywords: Community pharmacy; Continuous quality improvement; Medication error reporting

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Introduction

With a number of recent high-profile cases[1,2] within the health care setting involving quality-related events (QREs), it is imperative that pharmacy stakeholders develop in-store and collective strategies to identify and address the root causes of QREs and communicate lessons learned to prevent similar tragedies from occurring in community pharmacies. Within a community pharmacy context, QREs can be defined as medication errors that ultimately reach the patient, such as incorrect drug, dosage, quantity, as well as near misses, where the error is caught by pharmacy staff before dispensing.[3] There has been very limited research exploring QRE rates in community pharmacies. Ashcroft et al,[4] examining UK community pharmacies, identified QRE rates at approximately 26 errors for every 10,000 prescriptions dispensed. Perhaps more concerning than the rate of errors is the lack of formal and well-structured quality improvement programs designed to allow community pharmacy staff to collectively learn from QREs and prevent similar errors from recurring.

A formal continuous quality improvement (CQI) program is an effective way for pharmacy staff to better report QREs and identify and address the key organizational and technological factors contributing to such errors. CQI is a management philosophy focused on continually identifying and addressing the root cause of errors, empowering employees to report problems without fear of negative consequences, developing open and seamless information flows, and focusing on improving overall levels of quality throughout the organization.[5]

Advancements in web-based and collaborative technologies have enabled the development of standardized CQI programs for QRE reporting and learning in community pharmacies. Through a common CQI program (to the jurisdiction) and using web-based systems, common databases, and online reporting and analytic tools, QRE occurrence and outcomes from one pharmacy can be disseminated to other pharmacies throughout the jurisdiction (eg, province, state, or country). Standardized CQI programs provide the tools, support, and autonomy needed for quick and easy QRE reporting and the assessment of such errors for root causes. These programs also allow pharmacies to learn from one another (despite being potential competitors), take advantage of network effects (ie, the more adopters, the better the quality of the data), and proactively address sources of QREs before they occur. Standardized CQI programs, when fully embraced by community pharmacies, also provide much needed aggregate data on QRE reporting to allow regulatory authorities, pharmacy associations, and patient safety advocates to develop and implement strategies aimed at reducing QREs and enhancing public safety.

However, despite the fact that pharmacies in many North American jurisdictions are now required to have a CQI program in place[6] and the significant potential of such programs for improving patient safety, research exploring CQI challenges in community pharmacies considerably lags in comparison to service, manufacturing, and various health care (eg, hospital) sectors. Subsequently, little is known with respect to the challenges that community pharmacies face with implementing CQI programs, let alone a standardized one. As a starting point to better understanding such challenges, this research identifies the initial implementation issues faced by community pharmacies as they adopt a standardized and technology-enhanced CQI program designed to improve QRE reporting and learning. The specific objectives of this study were to

1. Identify the initial challenges community pharmacies face when implementing a standardized and technologically enhanced CQI program
2. Assess how pharmacy managers and staff addressed these early challenges

Methods

This research explored the initial challenges of standardized CQI adoption through a qualitative interview research design[7] involving community pharmacies that adopted the SafetyNET-Rx CQI program (www.safetynetrx.ca). This method allowed for rich data to be derived while ensuring that the CQI process followed, technological sophistication of the support tools, and expectations about how QREs were to be addressed (eg, online reporting of errors, quarterly meetings to discuss QREs) remained the same.

Study setting

SafetyNET-Rx is a CQI program designed to improve QRE reporting and learning in community pharmacies. SafetyNET-Rx combines the key elements of CQI with the latest in integrative information systems to provide pharmacy staff with the support (eg, processes, training, and technology) needed to identify, report, and learn