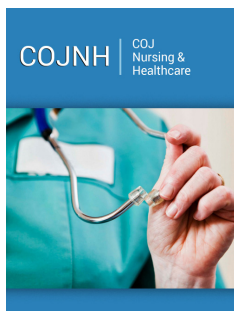



Bridging the Gap: Using Healthcare Survey Data to Highlight Communication Gaps Between Primary Care and Ambulatory Care Settings

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Abstract

In order to ensure safe and optimized patient medication management, transitions of care must be a vital component of the healthcare process. However, medication safety extends beyond just times of transition, but similarly relies on effective and accurate communication regarding accurate medication lists. Many health systems do not communicate effectively, missing changes to medication lists that do not require a new prescription sent to the community pharmacist. Universally, successful care plan development and communication for a patient is creation of an effective interdisciplinary healthcare team. However, there is one interdisciplinary relationship that many times is not fostered, communication to the community pharmacists. The focus of this commentary is to address a gap in the literature and develop a more functional relationship between ambulatory care and community pharmacists.

Keywords: Communication; Community pharmacy; Ambulatory care; Patient safety

Abbreviations: MD: Doctor of Medicine; DO: Doctor of Osteopathic Medicine; NSAID: Nonsteroidal Anti-inflammatory Drug; ACEi: Angiotensin Converting Enzyme Inhibitor

Introduction

The roles and responsibilities of pharmacists have evolved significantly over the last decade or so [1]. The ambulatory care and community spheres, in particular, have witnessed several innovations, including chronic disease state management, broader immunization protocols, medication advisory services, comprehensive collaborative practice agreements, point-of-care testing, and increased recommendations by community pharmacists for minor ailments and conditions [2]. While these services add value to patient care, one critical component is missing: collaborative communication between ambulatory care and community pharmacists [3]. Recent studies have shown that lapses in communication negatively impact patient safety, quality of care, and overall health outcomes [4-6]. Conversely, clear and consistent communication between different pharmacy settings can improve detection of medication errors and even reduce hospital readmission rates [3-7].

Though nearly all healthcare professionals recognize the importance of effective communication across practice settings, significant barriers remain [8-10]. One common barrier relates to coordination outside of one's own institution or practice setting; after all, it may require substantial time and effort to communicate across unconnected healthcare institutions or healthcare systems [11-14]. Moreover, communication regarding chronic disease state management and corresponding medication changes may be difficult within

the ambulatory care space, especially when vital information is communicated solely to patients and caregivers and not to community pharmacists dispensing medications to those same patients [15-23]. Recent work suggests that other members of the healthcare team; including prescribers, nurses, and office managers, are in favor of greater collaboration and communication with pharmacists [20]. In one survey, over 90% of physicians wanted help ensuring that patients with multiple chronic conditions adhered to their care plans, though in yet another survey 27% of physicians attributed poor communication as one of the primary reasons why their patients mistrusted the healthcare system as a whole [24,25]. Clearly, considerable improvements in communication can and should be attempted by all parties.

This commentary article attempts to “bridge” these so-called gaps in communication by highlighting recent survey data obtained from physicians and medical assistants/nurses. We contend that, at present, communication within primary care is highly variable which, in turn, prevents consistent and clear communication between clinical or ambulatory care pharmacists and their retail or community counterparts. It is hoped that this survey data may call attention to and help to facilitate improvements in those relationships.

Discussion

As noted above, clear and consistent communication across healthcare systems is vital for safe and effective patient care [26]. To better understand how different members of the

healthcare team convey prescription information to community pharmacists, surveys were distributed to physicians (MD/DO) and medical assistants/nurses in a small, rural family medicine clinic in Florida. These surveys were approved by the University of Florida Institutional Review Board for a related research project. The project sought to determine how changes in prescription information were communicated from physicians and medical assistants/nurses to local community pharmacists. Surveys were administered electronically via RED Cap, a secure, IRB-approved web-based platform designed for data collection, storage, and analysis [12,13]. Only those who successfully completed the survey were included in the study. If desired, respondents were allowed to skip questions, though a two-week deadline was enforced for survey completion. Digital reminders were sent to participants approximately seven days after the introductory email.

Survey data was divided into two cohorts. The response rate for the physician cohort was 83% (5/6 completed), while the medical assistant/nurse cohort exhibited a 67% rate (4/6 completed). An example of the Prescriber Survey can be found in Table 1. When asked about their customary communication method regarding prescription changes or discontinuations with community pharmacists, two physicians indicated that either they or a delegate personally called the pharmacy. Moreover, another two physicians always asked a delegate to spearhead communication, while a single prescriber admitted to never considering the importance of conveying such information to local community pharmacists.

Table 1: Prescriber survey example with results.

Survey Question	Participants Response (n=5)		
Do you personally communicate prescription changes or discontinuations to community pharmacists, or delegate the task to others?	Always communicate personally	0	
	Mixed model of personal and delegate	2	
	Always delegate	2	
	Never considered need for this level of communication	1	
How do community pharmacist receive notification regarding a discontinued medication?	Fax from myself or my representative	0	
	Telephone call from myself or my representative	3	
	Note on the E-prescription	3	
	Patient informs pharmacy	2	
	Pharmacist at community setting should understand based on duplication of therapy	2	
Other - describe “probably they aren’t getting properly notified”	1		
How do community pharmacist receive notification regarding a modification in a medication dose or frequency that did not require a new prescription? (i.e. instructions for dose change “take two tablets” or frequency alterations)?	Fax from myself or my representative	0	
	Telephone call from myself or my representative	1	
	Note on the E-prescription	2	
	Patient informs pharmacy	2	
	Pharmacist at community setting should understand based on duplication of therapy	1	
	Other - describe “hopefully informing pharmacy but likely not”	1	
Do you prioritize need for communication to community pharmacist for any of the below classifications? (include personal or delegated communication)	Yes	Always for all medications	1
	Yes	High risk medications (insulin, anticoagulation, etc.)	2
	Yes	Controlled substances	0
	Yes	Other - describe	0
	No		2

In your professional opinion, would there be a clinical and safety benefit to develop a communication process for consistent approach to relay this information from primary care office to community pharmacies.	Yes	MDs should lead the communication process	1
	Yes	RNs should lead the communication process	0
	Yes	MAs should lead the communication process	1
	Yes	PharmDs should lead the communication process	2
	No		0

When asked how often prescription changes are communicated to community pharmacists, two medical assistants/nurses reported the frequency at more than twice daily, while two others admitted to once every three months or even never. When the same cohort was asked how vital information was conveyed to community

pharmacists, 75% of medical assistants reported that details were embedded within “notes” attached to electronic prescriptions, which could be overlooked by pharmacy staff. More comprehensive results from the Medical Assistant Survey can be found in Table 2.

Table 2: Medical Assistant/Nurse Survey Results.

Survey Question	Participants Response (n=4)		
Do providers delegate to you as a task to communicate prescription changes (i.e. instructions for dose change ‘take two tablets’ or frequency alterations) or discontinuations, to community pharmacists?	Multiple times a day (> 2 times)		2
	Once daily		0
	Multiple times a week (> 2 times)		0
	Once weekly		0
	Infrequently (approx. < 3 times per month)		1
	Almost never (approx. < 6 times per year)		0
	Never		1
How do community pharmacist receive notification regarding a discontinued medication?	Fax from prescriber or myself		0
	Telephone call from prescriber or myself		1
	Note on the E-prescription		3
	Patient informs pharmacy		0
	Pharmacist at community setting should understand based on duplication of therapy		0
	Other – describe		0
How do community pharmacist receive notification regarding a modification in a medication dose or frequency that did not require a new prescription? (i.e. instructions for dose change “take two tablets” or frequency alterations)?	Fax from prescriber or myself		1
	Telephone call from prescriber or myself		1
	Note on the E-prescription		1
	Patient informs pharmacy		0
	Pharmacist at community setting should understand based on duplication of therapy		0
	Other – describe “We just let the patient know until new script is needed”		1
Do you prioritize need for communication to community pharmacist for any of the below classifications? (include personal or delegated communication)	Yes	Always for all medications	2
	Yes	High risk medications (insulin, anticoagulation, etc.)	1
	Yes	Controlled substances	0
	Yes	Other - describe	0
	No		1
In your professional opinion, would there be a clinical and safety benefit to develop a communication process for consistent approach to relay this information from primary care office to community pharmacies.	Yes	MDs should lead the communication process	2
	Yes	RNs should lead the communication process	0
	Yes	MAs should lead the communication process	2
	Yes	PharmDs should lead the communication process	0
	No		0

Conclusion

Recent literature has demonstrated improvements in patient care with increased communication between inpatient and outpatient spheres [3,14]. Despite its obvious benefits, there is little scholarship concerning processes to improve communication between ambulatory care and community pharmacists [16]. The

forementioned physician and medical assistant/nurse surveys support the need for more systematic communication methods between the two settings. As an example, each of the five physician respondents provided mixed or variable responses across all four sections of the survey. Additionally, preferred modes of communication varied significantly across the physician cohort,

which further underscores the general lack of standardized communication between prescribers and community pharmacists. One prescriber even candidly admitted that “the pharmacies probably aren’t getting properly notified.” Likewise, two prescribers assumed that community pharmacists would intuitively understand when or why medication discontinuations were needed. Such assumptions are pernicious since approximately 25% of medication errors leading to patient harm occur in community pharmacies, where high prescription volume and inadequate pharmacist coverage are the strongest contributors [27,28]. Though studies suggest that nurses and pharmacists catch anywhere from 30-70% of medication-ordering errors, that still leaves a huge percentage of total errors unaddressed [29]. Surprisingly, only two physician respondents recognized the inherent risk of medications like insulin or anticoagulants and placed greater emphasis on clear communication with local pharmacies [30]. Since approximately 71% of drug-related hospitalizations in the United States are linked to drug classes like antiplatelets or anticoagulants, NSAIDs, diuretics, cardiovascular agents (e.g. β -blockers or ACE inhibitors), opioids, and antidiabetics, this implies that many prescribers—including the ones surveyed here—may underestimate the dangers of seemingly “ordinary” prescription medications [31].

Results from the medical assistant/nurse cohort mirrored the variability seen in the physician cohort. Interestingly, none of the medical assistant/nurse respondents assumed that community pharmacists would intuitively understand when or why medication discontinuations were needed, while only one respondent placed greater emphasis on clear communication of high-risk medications with local pharmacies. Though these survey results are undeniably limited-reflective of a single rural family medicine clinic—they are nonetheless telling and potentially reflective of larger systemic issues. Further work is certainly needed; in the future, the authors hope to administer similar surveys at their respective practice settings and compare results with those listed above.

Ultimately, this commentary article was intended to call attention to a general lack of communication in primary care settings and the belief that interventions are sorely needed. Studies have repeatedly shown that communication gaps in healthcare can compound themselves into medication errors, therapeutic discrepancies, or adverse drug reactions farther downstream at local pharmacies [32]. We contend that development of and adherence to a consistent communication process between ambulatory care and community settings would pay immediate dividends, including increased accuracy of active medication lists, reduced medication errors, fewer drug interactions and adverse events, and improved patient care outcomes [33].

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