

What's The Word? Defining Community Pharmacy Interventions



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INTRODUCTION

The role of the community pharmacist within the healthcare system is vital. As healthcare moves towards value-based payments it is important that pharmacist contributions are fully realized. One barrier to proving this value is the lack of a standardized system to track and capture the types and quantity of interventions made by pharmacy students and community pharmacists.

Documentation is a key parameter of the Pharmacists Patient Care Process; however, methods of documentation differ significantly across community practice sites. Standard definitions for medication therapy problems exist. However, no standardized definitions for interventions made to resolve MTPs were discovered in the literature.

The purpose of this study is to evaluate the vocabulary students and pharmacists are using to denote the intervention they are performing in the community pharmacy setting. If students can utilize a standardized definition sheet to categorize their interventions, one tracker tool can be used to facilitate experiential education.

OBJECTIVE

Primary:

Determine whether student pharmacists & licensed pharmacists are consistently able to categorize interventions

Secondary:

Evaluate trends in themes for situations that are not easily categorized

METHODS

Study Design: This was a prospective pilot survey.

Study Population: Participants were recruited via email from affiliated university student and preceptor listservs and local pharmacy organizations; students were limited to those who had learned about drug related problems/medication related problems. A chance to win a \$50 gift card was offered as an incentive to participate.

Survey Development: The study team developed 8 case scenarios representing common situations to the community pharmacy setting. Participants were provided with intervention categories and definitions (Figure 1) and were instructed to choose the "best" intervention category for the scenario described.

Ethics: The study was deemed exempt by the Institutional Review Boards of Thomas Jefferson and Binghamton Universities.

DEMOGRAPHICS

Respondents included pharmacists (40%) and students (60%). 114 participants started the survey; 75 completed the entire survey. Student surveys were excluded if they did not have knowledge of medication related problems (17) for a total of 58 surveys included in the final analysis.

Figure 2: Practice Environment

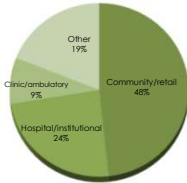
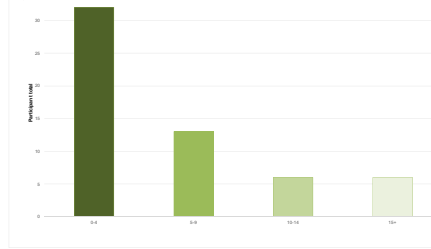


Figure 3: Years of Service



INTERVENTION	DEFINITION
New therapy initiated	<ul style="list-style-type: none"> Addition of drug for untreated/undertreated indication Addition of medical device for administration of drug (i.e. pen needles, syringe, spacer) Administration of vaccine
Therapy discontinued	Drugs with no indication removed from medication regimen Prescriptions for duplicate drugs discontinued
Dose altered	<ul style="list-style-type: none"> Medication dose increased/decreased due to: <ul style="list-style-type: none"> Drug interaction Disease progression Laboratory values Adverse drug reaction
Administration route changed	Administration route optimized for patient
Duration altered	Duration of treatment changed to clinically recognized dosing parameters
Drug Monitoring	Request for therapeutic drug monitoring (INR, blood pressure, weight, laboratory values)
Drug changed	<ul style="list-style-type: none"> Medication changed due to: <ul style="list-style-type: none"> Insurance/formulary Cost Generic equivalent available Guideline recommendation Intolerance/adherence issue
Administration technique altered	<ul style="list-style-type: none"> Device education performed Patient changed or altered administration of a drug or device Adherence counseling resulting in administration technique change
Patient contacted healthcare provider	Request for patient follow-up with provider regarding drug, side effect, monitoring or other factor related to drug regimen
Intervention declined	The pharmacist took an action recommending any of the other interventions and the patient or prescriber declined

Figure 1. Definitions provided within survey to help standardize which words are associated with the intervention

RESULTS

TABLE 1: SURVEY RESPONSES

CASE THEMES	TOP 2 ANSWERS (%)	TOTAL NUMBER OF DIFFERENT RESPONSES	
		PHARMACISTS	STUDENTS
Self-monitoring of blood glucose, dose titration, glucose monitor training	New therapy initiated (75.9) Drug monitoring (12.1)	3	4
Transitions of care review, inhaler training- spacer	Administration technique altered (84.5) Administration route changed (5.2) Dose altered (5.2)	3	4
GLP1 training and self-monitoring counseling	Drug monitoring (43.1) New therapy initiated (39.7)	4	7
Backorder alternative	Patient contacted healthcare provider (77.6) Intervention declined (19)	2	4
Duplicate therapy change	Therapy discontinued (50) Drug changed (39.7) Dose altered (89.7)	4	5
Lower dose of benzodiazepine	Drug changed (3.4) Administration technique altered (3.4) Patient contacted healthcare provider (3.4)	2	4
Vial to pen for insulin	Administration technique altered (65.5) Drug changed (29.3)	2	4
SGLT2 recommendation and addition	New therapy initiated (91.4) Drug changed (5.2)	2	3

Bold font indicates agreement with answers coded by researchers

DISCUSSION

- Linguistics is a complicated study of language, including semantics and syntax. English, by nature, is a complicated language linguistically. Therefore, we inquired if English was the first language of the study participants, which was the case in all except for three contributors.
- PQA's Medication Therapy Problem list was utilized to develop the problems. No standard list, within primary literature or professional pharmacy organizations, was found for interventions. Therefore, interventions were determined and defined by the researchers from a variety of sources.
- All scenarios yielded at least two different responses.
- Most scenarios (7/8) produced results consistent with the researcher coding. One scenario produced results inconsistent with those coded during survey development.
- Practicing pharmacists showed less variation in intervention chosen than their student counterparts.
- Students are taught to identify and categorize medication related problems (MRPs) or drug related problems (DRPs) in the doctor of pharmacy curriculum; however, results from this study support the need to spend additional time addressing appropriate classification of interventions. This can affect reimbursement and perceived values of "worth."

Limitations:

- No focus group to determine the "expected" answer - just based on researcher experience.
- Small sample size - pilot study.

CONCLUSIONS

The ability of pharmacists and students to apply a common set of definitions to their interventions is important because interventions can be tied to different potential outcomes, which may affect reimbursement rates. The results of this study show that there are inconsistencies in categorization of interventions by pharmacists, even when provided with a common definition list. Inconsistencies are even higher among students. If pharmacists are unable to commonly categorize their actions in order to document their interventions in a standardized manner, this could mean that further training in this area of documentation is needed in pharmacy school or beyond.

The implications of this research will be utilized in the development of a community pharmacy intervention tracking tool for use by pharmacy students on rotation. The goal of this tool is to help students practice documentation and demonstrate pharmacy student worth through interventions completed.

DISCLOSURE

Elizabeth Laughlin is the recipient of the Second Annual School of Pharmacy and Pharmaceutical Sciences Summer Research Internship for Women at Binghamton University. Sarah Lynch and Danielle Mayer have nothing to disclose.

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