How Well Do Pharmacy Clinicians Perform In A Patient Simulation-based Admission Medication Reconciliation Validation Program?

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Background

- Hospitals need effective strategies to implement medication reconciliation, train clinicians, and meet accreditation standards.

Objective

- To assess the performance of pharmacy clinicians participating in a standardized formal medication reconciliation training program and compare the results among participant groups.

Methods

Validation Program Description

Part I – Education Phase

- Participants completed a pre-reading package:
  - Safer Healthcare Now Medication Reconciliation Getting Started Kit
  - Published articles on BPMH Best Possible Medication History (BPMH) practices
  - Tools- BPMH interview guide, Top 10 Tips for Interviewing Patients

- Participants attended a group learning session:
  - Introduction to medication reconciliation
  - BPMH best practices (Figure 1) and tips for an accurate, comprehensive & efficient BPMH
  - Identification and coding of discrepancies
  - Interactive skit and audience feedback session

- Observation - trainees encouraged to observe several pharmacist-conducted BPMHs

Part II – Validation Phase

- Participants interviewed a standardized patient to gather an accurate BPMH (16 medications)
- Participants were asked to identify and accurately classify 10 discrepancies

Participants were scored and given feedback on:
  1. BPMH process accuracy and timing
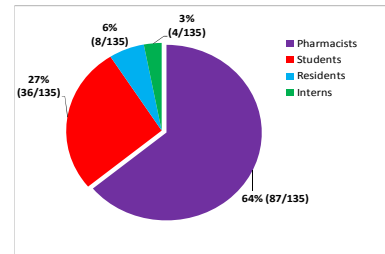 2. Accuracy in identifying admission discrepancies
  3. Ability to code discrepancies
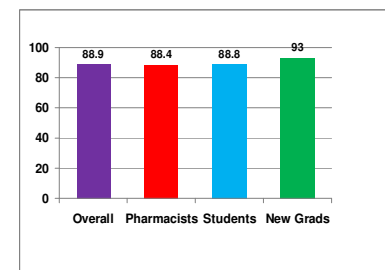
Methods

Figure 1: BPMH Interview Guide

Results

Summary results from 2006-11 at 3 hospital sites

Figure 2. Pharmacy Clinician Type (n=135)

- Pharmacists 64% (87/135)
- Students 27% (36/135)
- Residents 6% (8/135)
- Interns 3% (4/135)

Note: Residents and Interns grouped together into "new graduates" category.

Figure 3: Mean BPMH Score (n=135)

	Overall	Pharmacists	Students	New Grads
Score	88.9	88.4	88.8	93

Results

Figure 4: Mean BPMH Interview Time

	Overall	Pharmacists	Students	New Grads
minutes	17 [5, 60]	20 [5, 60]	15 [10, 30]	17 [12, 23]
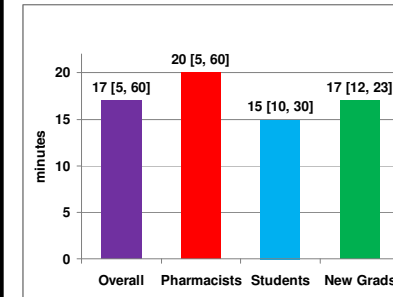
Table 1. BPMH Process Strengths

High Scoring Category	% of participants
Explained purpose of interview	99%
Use of prescription medications	97%
Asked for medication vials	97%
Use of OTC medications	96%
Use of vitamins/minerals	96%

Table 2. Common Omissions In BPMH Process

Missed Category	% of participants
Patient medical conditions	33%
Rx meds patient not taking	33%
Use of eye/ear drops	27%
Recognizes patient uses 2 pharmacies	26%
Use of patches	25%

Results

Additional Results:

- Overall discrepancy identification score was high 94.4% [range 50.0-100.0%]
- Overall coding accuracy score was high 99.5% [90.0-100.0%]
- Participants who used an Interview Guide had overall higher scores (91% vs. 82%)
- 5% of participants scored 100%

Limitations

- Various assessors/standardized patients over 5 years
  - subjectivity possible with qualitative assessment
  - variability in interaction between a participant and a standardized patient

- Variances in curriculum, education, training and awareness of medication reconciliation over 5 year period

Conclusions

- A standardized medication reconciliation validation process enables consistent teaching and promotes competence in BPMH best practices and admission medication reconciliation.

- A standardized medication reconciliation process can be widely applied to other institutions and clinician groups.

- Scores are high and similar across pharmacy clinician groups