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ScienceDirect
Research in Social and Administrative Pharmacy 12 (2016) 461–474
RESEARCH IN SOCIAL & ADMINISTRATIVE PHARMACY

Original Research

Exploring attitudes and opinions of pharmacists toward delivering prescribing error feedback: A qualitative case study using focus group interviews

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Abstract

Background: Prescribing error (PE) rates have been extensively reported in the literature. Various interventions at reducing PEs have been studied with some success, yet PEs continue to be a challenge for the health care system. Prescriber feedback has been proposed as one mechanism to reduce PEs in seminal studies. Pharmacists are viewed as an integral safety net in intercepting PEs and have been suggested as best placed to deliver feedback. However, there is very limited literature considering pharmacists; attitudes, views and opinions on facilitating PE feedback.

Objectives: To explore the attitudes and views of hospital pharmacists in delivering feedback on PEs to prescribers.

Methods: Twenty-four pharmacists were recruited for one of four focus groups in a large district general hospital in the Northwest of England to explore the views of pharmacists to delivering feedback on PEs. Focus groups were transcribed verbatim and analyzed using a thematic framework approach to identify current practices, beliefs and attitudes of pharmacists toward delivering PE feedback. Transcripts were independently analyzed by the research team.

Results: Pharmacists' views on providing feedback on PEs were organized into eight major themes; Delivery of feedback, impact of feedback, prescription error, work environment, feedback facilitator, working relationships, education and training, and system improvements. Pharmacists recognized that timely feedback on PEs was essential for prescribers to learn from their mistakes and to reduce PEs. However, delivery of feedback appeared to be inconsistent, influenced by time pressures, workload, rapport and PE severity and prescriber availability. Pharmacists reported that ward-based pharmacists in particular, were suitable to facilitate PE feedback, but expressed concern that the process may adversely affect prescriber-pharmacist rapport. Pharmacists reported limited training on delivery of feedback with formalized training required for improved consistency, and quality, of constructive feedback.

Conclusions: PE feedback should be delivered to prescribers with ward-based pharmacists best suited to the role. Both direct and indirect benefits of PE feedback were reported, although potential barriers to

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http://dx.doi.org/10.1016/j.sapharm.2015.08.012

delivering PE feedback were also identified. Pharmacists reported additional anxieties that feedback could create tensions and compromise working relationships with prescribers. PE feedback could be considered an extension of a pharmacist's role and pharmacists welcomed formalization of feedback, but were cognizant of the potential impact on their workload and expressed the need for training in the delivery of feedback.

Keywords: Hospital pharmacist; Medication error; Prescribing error; Feedback; Error reduction; Patient safety

Introduction

Patient safety is a central focus of health care systems yet remains a challenging dilemma, with 10% of hospital patients coming to unintentional harm.[1] Medication errors (MEs) are a leading cause of mortality.[2] The National Patient Safety Agency (NPSA)[3] reported 92 cases of serious harm or death from MEs. With under reporting of MEs a concern, it is likely that these figures are underestimated. Whilst MEs can occur at any stage of the medication use cycle (prescribing, dispensing, administering or monitoring for example),[4] prescribing errors (PEs) predominate,[5] are a substantial problem[6] and are more likely to cause harm.[7,8] These errors can carry huge financial burdens with the NPSA estimating that preventable MEs cost the National Health Service (NHS) a staggering £750million per year.[9]

PE rates in the hospital setting vary in the literature from 1.5% to 52%.[7,10–15] Most reported PEs are intercepted by pharmacists and nurses, with one report in the intensive care setting suggesting a 10% rate of patient harm.[16] However, even errors that do not result in harm can delay treatment.[17] Given the prevalence of PEs, the time that nurses, pharmacists and prescribers invest in intercepting and correcting PEs, could be better used to focus on patient centered care. Endeavors to tackle the problem have focused on educational and system interventions including educational outreach, individual and group teaching, and electronic prescribing and decision support software systems.[5,18,19]

Prescribers have reported a lack of feedback and unawareness of their PEs previously.[5,12] Feedback is considered most effective when it is constructive and specific, focusing on strengths and weakness, with clear strategies for improvement to facilitate reflective practice.[20] Feedback is suggested to reduce PEs,[21] encourage feedback seeking behavior[5,22] and can catalyze behavioral change.[23] Feedback can highlight performance issues,[22,23] reducing distance between perceived and actual performance. Considering a core ethos of medical practice, *primum non nocere*, or 'first do no harm,' then prescribers should be inherently motivated to improve any deficient task performance.

Feedback has been reported to produce small to moderate effects on prescribing.[24] However, there is limited evidence supporting feedback on PEs as a single intervention with most studies using additional educational strategies. For example, Thomas et al[25] reported reductions in PE rates in an intensive care setting following prescribing tutorials, ward-based teaching and feedback on PEs. Chan et al[26] reported a reduction in medicines reconciliation discrepancies in a New Zealand hospital admissions unit following both educational interventions and PE feedback. Sullivan et al[27] reported 83% reductions in narcotic error rates following e-mail feedback in a pediatric intensive care. However, this was in an isolated setting with benefits limited to opioid prescribing. A mixed methods study[28] explored the impact of weekly, formative, electronic feedback to prescribers on their responses to computerized alerts. Potential for behavioral change was reported with prescribers suggesting the electronic feedback encouraged learning and reflection.[28] However, benefits were limited to only one of the safety domains whilst the process lacked the individualization and two-way communication that face-to-face feedback could provide. Franklin et al[17] reported that generic feedback at the specialty level was considered acceptable by prescribers, although a more recent study reported that individualized feedback was preferred.[22]

It has been suggested that pharmacists are the 'main defence'[14] for intercepting PEs and so are best placed to deliver feedback, a recommendation endorsed in PE studies.[29] However, there are few studies available exploring the views of pharmacists as facilitators of PE feedback. One case study[22] administered questionnaires to junior doctors and pharmacists, reporting that