

Grant final report to the Honor Society of Nursing, Sigma

Title of project: Patient and family participation in medication communication at discharge

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Summary of project aims

Patient and family engagement is advocated internationally as a strategy to enhance medication safety at transitions of care. Enhancing communication is a major means of enabling patient and family engagement. The aim of this study was to explore patients' and families' participation in discharge medication communication. Specific research questions included: 1) What factors facilitate or hinder patients' and families' participation in discharge medication communication? (Work system); 2) How do patients and families participate in discharge medication communication? (Process); 3) What are patients' and families' perceived benefits of discharge medication communication? (Outcomes).

Theoretical/conceptual framework

The Systems Engineering Initiative for Patient Safety 2.0 (SEIPS 2.0) model provides the overarching conceptual framework for this project, and informed data collection tools. The SEIPS 2.0 model comprises of three elements; 'work systems', 'processes' and 'outcomes', with the assumption that 'work systems' and 'process' can be appraised, and they influence 'outcomes' (Holden et al., 2013). The strength of the SEIPS 2.0 model is that the focus is on the patient and their family at the centre of the health care work system. 'Work systems' include six components that produce work 'processes', demonstrating a systems orientation, meaning that many components influence errors in work systems, thus, a holistic approach must be taken to improving patient safety (Holden et al., 2013).

For this study, the 'process' of patient participation in medication communication was conceptualised along the 'continuum of patient involvement' (Kim et al., 2018; Thompson, 2007). At the passive end of the continuum, patients are silent and do not communicate. In the middle of the continuum, patients contribute by seeking or giving information. At the active end of the continuum patients are involved in decision-making, which can be shared or autonomous. This continuum informed data analysis.

Methods, procedures and sampling

This mixed-methods study had two phases. For Phase 1, patients on the two participating medical units of a public teaching hospital were screened for eligibility. All eligible participants were approached and engaged in the informed consent process. Patients who provided informed consent, completed self-report surveys prior to observations, the content of the survey included age, gender, number of hospitalisations in last year, education, employment, medication practices, preferences for participation in medication communication, medication concerns and health literacy.

On the day of observation, the researchers only collected data relating to communication encounters, defined as when the patient was in close enough proximity with a health care professional to verbally interact. During observations, researchers used a structured observational tool, developed based on the SEIPS 2.0 model, collecting data such as environmental factors, organisational factors, interruptions and multi-tasking. The observational tool had good content validity and inter-rater reliability. During communication encounters, medication conversations were audio-recorded. Observations for each patient ceased once the patient vacated the medical unit or if two hours of observation had occurred, whichever came first.

Analysis of Phase 1 self-report surveys and structured observational data involved descriptive statistics including frequencies, relative percentages, median and interquartile range, and mean and standard deviation. Audio-recorded medication conversations were analysed using deductive content analysis. The 'continuum of patient involvement' was used as the matrix, and two coders recorded data according to the matrix.

For Phase 2, different patients and their families to those in Phase 1 were screened for eligibility on two medical wards. All eligible participants were approached and engaged in the informed consent process. Patients who provided informed consent, completed the same self-report surveys as Phase 1, while families completed a similar survey with language adapted to the family.

The participants were telephoned 2-4 days after the patient's hospital discharge and a time for a phone interview was arranged. A semi-structured interview guide, informed by Phase 1, was used to guide interviews. Interviews were audio-recorded and transcribed verbatim. One researcher undertook inductive content analysis, with regular team input throughout the process, to develop categories.

Ethics approval was gained from the participating hospital and university.

Summary of findings

For Phase 1, 42 eligible participants were approached, and 30 consented. The 30 participants were observed across 71 communication encounters, with a median of 2 encounters per participant. Patients' mean age was 76.8 years (SD=76.8), and 16 (53.3%) were male. Half of the sample had a family/friend/carer who helped them to take medications at home, 22 (73.3%) patient had brought their own medications into hospital, and 12 (40.0%) brought a list of medications into hospital. Most patients (n=27, 90.0%) reported adequate health literacy. Nine (30.0%) of patients were concerned about unwanted effects from medicines, and 4 (13.3%) had concerns about being given different medicines after leaving hospital.

Analysis of structured observational data across the 71 communication encounters showed that 93% encounters occurred in the patient's room, with pharmacists (n=43; 60%), nurses (n=26; 37%), and doctors (n=2; 3%). The most common tool used to support medication communication was a printed list of discharge medicines (n=29; 40.8%), which was always provided by pharmacists. Families were present during 12 encounters (17.0%), and of these encounters families undertook medication communication in nine encounters. In four of these nine encounters, family members were on the phone.

Background noise was present in 35 (49.3%) encounters. There was urgency in communication including when team leaders (such as senior nurses) communicated the need to quickly transfer/discharge the patient (n=4; 5.6%), and when patients and/or families communicated the need to discharge the patient by a set time (n=8; 11.3%). Twenty-five interruptions were witnessed during encounters, the equivalent of almost 1 in 3 encounters.

The most frequent highest level of participation that patients enacted was information giving. Patients undertook more communication, and higher levels of communication with pharmacists on the day of discharge. In 24 out of 71 (34%) encounters, patients were not involved.

For Phase 2, eight patients and three family members were recruited. Their median age was 71.5 years (IQR=11), half were male, and only one participant reported family at home who assisted with medications. Most participants brought their own medication to hospital (n=7 (87.5%)), only one participant brought a list of medications to hospital. Families' age ranged from 60-87 years old, two family participants were male and two preferred the healthcare professional to lead discussions about medications, while the remaining participant preferred

to have a shared role. Two family members were very concerned about medication related problems after discharge.

During content analysis three categories were found. In category 1, 'obtaining comprehensive medication information', participants perceived that they gained medication information in hospital and their learning had increased. Hospital health care professionals were viewed as trustworthy sources of medication information and daily tasks, like ward rounds and medication administration, were opportunities that facilitated medication information exchange. Some participants continued to be active information seekers in the community, gaining information from a variety of sources.

Category 2 was 'preferred approaches for delivering information'. Participants preferred receiving verbal information that was presented in a welcoming manner (i.e. the health care professional was friendly, they spent time with the patient, and a relationship was built) to promote their engagement. They wanted this supported by written information.

Category 3 was 'speaking about medications in hospital'. Participants saw their role as asking questions, when further medication information was required. Participants did not view that they had a role information giving and making decision about medications. Further questioning by the interviewer revealed that participants could contribute by sharing problems, and this informed healthcare professionals' decision-making. Families described their role as advocating for the patient.

Recommendations

Patients and families learn about medications in hospital, and some keep actively seeking information in the community. Strategies that raise healthcare professionals' awareness of their valuable role in educating patients and families would be beneficial, particularly because education opportunities can be embedded as part of their usual daily tasks.

Our findings suggest that written information to support verbal communication is required. Similar to other studies, a written discharge medication list was valued by patients and should be implemented into practice (Tobiano, Chaboyer, Teasdale, Raleigh, & Manias, 2019). It is important that the format of these is acceptable to end-users. Health care professionals' patient-centered communication skills underpin the success of patient engagement in communication. Patient-centered communication training is suggested an area for future education and research investigation.

There are opportunities for higher levels of patient and family engagement. Our participants showed they were currently confident undertaking lower levels of participation, but unknowingly they had information about problems providing opportunities to participate at higher levels (i.e. decision-making). Tools that support shared problem defining and in turn shared decision-making could allow patients and families to participate at higher levels. It may be that strategies like decision-aid tools and the ‘Ask Me Three’ campaign could enable patient and family engagement.

Reference list

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