Use of a Question Prompt Sheet to Promote Patient Engagement After an Acute Myocardial Infarction

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Introduction

Patient engagement is a fundamental part of patient-centered care (Institute of Medicine, 2001). Higher levels of patient engagement are associated with improved patient outcomes (Greene, Hibbard, Sacks, Overton, & Parrotta, 2015; Hibbard & Greene, 2013; Kinney, Lemon, Person, Pagoto, & Saczynski, 2015) but patient engagement is rarely studied in acute cardiology populations (Arnetz et al., 2010; Peters & Keeley, 2017). Promotion of patient engagement during hospitalization may play a role in improving patient outcomes in the AMI population through increasing CR participation. Providing patients with a list of questions (“question prompt sheet,” henceforth “QPS”) is one method to encourage patients to participate in their care ((AHRQ) Agency for Healthcare Research and Quality, 2012; Sansoni, Grootemaat, & Duncan, 2015).

The purpose of this study was to examine the feasibility of utilizing a CR-specific QPS to promote patient engagement during interprofessional bedside rounds for inpatients diagnosed with AMI. Due to the complex nature of the acute care setting, interprofessional collaboration was essential to the development and implementation of this patient-care initiative.

Methods

A descriptive correlation study was conducted over eight weeks on two cardiovascular units (58 beds) at an academic medical center in the Southeastern United States from October to December 2017. The methodology of study design was grounded in Social Cognitive Theory (Bandura, 1986). This theory suggests that a behavior such as asking questions is affected by the dynamic relationships between personal, environmental, and behavioral factors. The patient’s decision to participate in a behavior does not occur in isolation but rather is influenced by responses of the healthcare team, family, and friends. The responses of these individuals to the patient’s questions can either negatively or positively reinforce question-asking behavior.

A convenience sample of 32 (N) inpatient adults diagnosed with AMI participated and 4 (N) physicians participated. Patients received one-on-one instruction regarding the use of a 12-question CR-specific QPS with encouragement to ask questions during rounds. The QPS was developed at the sixth-grade reading level with the input from an attending cardiologist, patient education services, CR and hospital nursing staff using evidenced-based literature (American Association of Cardiovascular and Pulmonary Rehabilitation, 2017; American Heart Association, 2016; Smith et al., 2011). Eligible patients were identified to participate in the study with the assistance of clinical nursing staff, charge nurses, and physicians after receiving training on the study protocol. Patient education was supplemented by education for physicians and nurses on the interprofessional team. Education content and methods of presentation were developed in collaboration with the leadership of both physicians and nurses on the two units. Both professions were encouraged to discuss CR during interprofessional rounds, encourage patients to ask questions, and endorse CR to their patients, particularly during interprofessional rounds.

Patient engagement was the primary outcome and was measured by observed question-asking behavior during interprofessional rounds and two subscales of the Patient Involvement Questionnaire (PIQ) (Arnetz et al., 2010; Arnetz, Hoglund, Arnetz, & Winblad, 2008). Secondary outcomes included demographics,
CR endorsement, physician and patient perceptions of QPS and education, and patient intention to attend CR. The methods of measurement included direct observation, chart review, and physician and patient self-administered questionnaires.

Results

Twenty of the 32 patients (62%) asked questions during rounds with a median of one question (IQR 2) for the length of stay. Twenty-four of the 52 questions (47%) asked were focused on obtaining more information about treatments or procedures. Sixteen patients participated in the questionnaire prior to discharge with only 13 patients answering the question about intention to attend CR. Eleven of the 13 (85%) patients reported positive intention to attend CR. Although question-asking behavior and PIQ scores were not found to be statistically different in those intending to attend CR compared to those who were not, patients who expressed a positive intention to attend CR tended to have higher PIQ scores. Most patients who received an endorsement about CR from a clinician (physician or clinical nurse) reported a positive intention to attend CR, with the relationship between CR nurse endorsement and intention to attend CR approaching significance ($X^2[1, N=13]=5.318$), Exact 2-sided, $p=.077$). Patients reported the QPS helped them ask questions about CR and to think about other questions to ask. Physicians ($n=4$) endorsed the helpfulness of the education sessions, but the perceptions of the impact of the QPS on patient question-asking behavior and duration of rounds were variable.

Conclusion

In conclusion, a CR-specific QPS developed through interprofessional collaboration has the potential to help AMI patients ask questions and feel engaged in their care. The higher levels of patient engagement observed in patients who intended to participate in CR suggest that patient engagement may play a role in CR participation, but the relationship between the level of engagement and CR participation requires further study. Findings of this study also suggest that the environmental factors cited in the social cognitive theory including nurses and physicians can play a critical role in facilitating patient engagement and encouraging patients to ask questions. Clinical and CR nurses also can influence the personal and behavioral factors cited in the social cognitive theory by enhancing a patient’s self-efficacy, knowledge, and skills related to post-MI care and CR. By influencing a patient’s self-efficacy, knowledge and skills related to asking questions and CR, the healthcare team may increase current rates of CR participate with the goal of improving patient outcomes.

Title:
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Keywords:
Cardiac Rehab, Patient Engagement and Question Prompt Sheet

References:


**Abstract Summary:**

Higher levels of patient engagement are associated with improved patient outcomes, but patient engagement is rarely studied in acute cardiology populations. Promotion of patient engagement during hospitalization after acute myocardial infarction (AMI) may play a role in improving cardiac rehabilitation (CR) participation.

**Content Outline:**

1. Introduction
1. Higher levels of patient engagement are associated with positive patient outcomes
2. Lack of research exploring patient engagement in acute cardiology populations
3. Patient engagement may play role in patient participation in cardiac rehab after an acute myocardial infarction
4. Asking questions is a behavior of engaged patients
5. Providing patients with a list of questions (question prompt sheet; QPS) can facilitate question asking
6. Interprofessional collaboration is needed to facilitate patient engagement

2. Methods
   1. Setting
   2. Social Cognitive Theory
      1. Asking questions is a behavior
      2. Personal, environmental, and behavioral factors
      3. Negative or positive reinforcement of question-asking behavior
   3. Sample
   4. QPS development and patient education
   5. Staff education and participation
   6. Measures
      1. Primary outcome: Patient Engagement
         1. Question-asking behavior
         2. Patient Involvement Questionnaire subscale scores
      2. Secondary outcomes: demographics, CR endorsement, physician and patient perceptions of QPS and education, and patient intention to attend CR

2. Results
   1. Patient Engagement:
      1. Question-asking behavior
      2. Patient Involvement Questionnaire:  
         1. Fifty percent participation in questionnaire (16 out of 32)  
         2. Patients who reported positive intention to attend CR (11 out of 13) tended to have higher PIQ scores
      3. Question-asking behavior and PIQ scores were not found to be statistically different in those intending to attend CR compared to those who were not.
   2. CR Endorsement
      1. The majority of patients who received endorsement of CR by a clinician reported positive intention to attend CR
      2. The relationship between endorsement by physician, nurse or CR nurse and intention to attend CR was not statistically significant. However, there was some evidence of a relationship between endorsement by the CR nurse and intention to attend CR
   3. Feasibility
      1. Patients reported QPS helpful
      2. Physicians reported education sessions helpful
      3. Variable physician responses regarding impact of QPS on patient question asking and length of interprofessional rounds

3. Conclusions
   1. A CR-specific QPS has potential to help AMI patients ask questions and feel engaged, but the feasibility of the QPS requires further study
   2. The level of patient engagement may play a role in CR participation.
   3. Physician, nurses and CR nurses are critical to facilitate patient engagement in the inpatient setting
   4. Interprofessional collaboration is necessary in planning and implementing a patient care initiative to promote patient engagement in the inpatient setting
5. Through promotion of patient engagement, the healthcare team may increase current rates of CR participation with the goal of improving patient outcomes

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**Professional Experience:** Holly Rector is a doctorally-prepared acute care nurse practitioner with over seven years of experience in acute care nursing, four of which have been focused on the care of acute cardiology populations. While pursuing her DNP degree at the University of Virginia, she was recognized as an Interprofessional Patient Safety and Quality Improvement Scholar, received the Graduate Teaching Assistant award, and held multiple leadership roles in both nursing and interprofessional university organizations. To date she has presented at three regional conferences on topics related to interprofessional education and patient engagement. She now resides in Toronto, Ontario where she is pursuing her career as an NP and exploring opportunities to utilize her DNP to contribute to quality improvement and interprofessional collaboration in Ontario.

**Author Summary:** Holly Rector is a new DNP with over seven years of acute care nursing experience, four of which have focused on acute cardiology populations. As an Interprofessional Patient Safety & Quality Improvement Scholar at the University of Virginia, Holly views interprofessional collaboration as a key aspect of quality care. She hopes to foster interprofessional collaboration in her future DNP work as she relocates to a new healthcare system in Toronto, Ontario.

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**Author Summary:** Dr. DeGennaro is Academic Director for Clinical Partnerships at the UVA School of Nursing. Her clinical research focuses on translating the evidence for oncology nursing practice to the bedside and specifically on improving symptom management, quality and safety. She has presented regionally, nationally and internationally. Dr. DeGennaro serves as the Assistant Department Chair for the Department of Acute and Specialty Care at the School of Nursing. She is an Oncology CNS and teaches across programs.