

Original Publication

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Preventing Breakdowns in Communication: Teaching Patient-Centered Posthospital Care Transitions to Medical Students

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Abstract

Introduction: Patient-centered discharge care is critical to teach in clerkships: Studies have shown that patient-centered discharge care may reduce rehospitalization rates as well as ensure patient understanding after discharge. While these skills are necessary to be a successful intern, this is infrequently taught formally in clerkships. This session introduces medical students to challenges patients and providers face during care transitions, specifically, the transition after discharge from an inpatient hospital stay. **Methods:** This workshop experience fosters the use of best communication-skills practices and team collaboration in discharge education and planning through reflective observation and role-play. Learners first identify common challenges faced when providing effective care transitions and then identify solutions to encourage patient-centered discharge care practices. Students also have the opportunity to be directly observed providing discharge care and to receive feedback using an observation tool. The materials associated with this publication include guidelines for workshop facilitators, blank video worksheet, completed video worksheet, teaching video, role-play exercise instructions and answer sheet for facilitators, direct observation tool, and workshop evaluation form. **Results:** The majority of students agreed the workshop would be helpful in practicing effective discharge education (69/75, 92%) and in providing patient-centered care during care transitions (72/75, 96%). Observers and students using the discharge education card reported an average score of 4.3 out of 5 that the observation was a helpful educational experience, and 84% of the completed discharge education tools included comments on areas of improvement or an action plan. **Discussion:** The tool is brief and user friendly, allowing for this exercise to be completed without difficulty during busy ward days. It also can be completed by residents or attendings depending on time constraints.

Keywords

Care Transitions, Direct Observation, Patient-Centered Care, Discharge Education, Patient Transfer

Educational Objectives

After viewing the video and participating in the workshop, each medical student will be able to:

1. List three reasons why posthospital care transitions are a patient safety and quality issue.
2. Identify four major barriers to effective, patient-centered discharge care transitions.
3. Analyze four potential solutions and strategies to improve patient-centered discharge care that address the domains of communication, patient education, patient safety, handoff process, and system factors.
4. Complete, while on the inpatient wards during the internal medicine clerkship, a patient-centered discharge education encounter with one patient while being directly observed by either an attending or resident.

Introduction

Care transitions after a hospitalization are becoming more complex given a medically complicated and aging population,¹ and ineffective care transitions are increasingly recognized as a patient safety and

Appendices

- A. Posthospital Discharge.mp4
- B. Video Worksheet - Student.docx
- C. Video Worksheet - Completed.docx
- D. Role-Play Exercises.docx
- E. PCP Handoff Example.docx
- F. Evaluation Form.docx
- G. Direct Observation Tool.doc

All appendices are peer reviewed as integral parts of the Original Publication.

quality issue. However, discharge education is infrequently taught to students; in undergraduate medical education, these curricula are sparse and exist primarily in a separate geriatric rotation and population.²⁻⁴

Improper care transitions can result in rehospitalization, medication errors, patient confusion about diagnosis or plan of care, and lack of follow-up and accountability for testing ordered while the patient was hospitalized.⁵ Strategies that have demonstrated reduction in these adverse events are involving the primary care physician⁶ and ensuring follow-up of pending test results.⁷ Prior published discharge education curricula and tools have targeted residents and preclinical students.^{8,9} However, clinical students have more clinical experience and patient care responsibilities than preclinical students yet less autonomy and fewer patient care responsibilities than residents; thus, they require education targeted to their level and clinical role, but currently, no tools exist for clinical students. Tools focused on preclinical students are often too basic for clerkship students, and tools focused on residents are often too advanced or complex for clinical students. Resident tools also provide education on care activities that students do not frequently undertake. In addition, repeat education at multiple time points throughout training and the medical education continuum is important for reinforcement.

A needs assessment of 73 students from the academic year prior to implementation of the curriculum demonstrated significant medical student involvement in discharge planning, as 71 students (97%) participated in scheduling follow-up appointments, 55 (75%) contacted primary care physicians, and 46 (63%) provided discharge education. Few students reported being observed or supervised: Of the students reviewing discharge materials with patients, only 31 (42%) were observed. Students' self-reported satisfaction with their postdischarge care was low (33% satisfied), and self-reported competency was similarly rated. Thus, a need exists for undergraduate medical student education on effective, patient-centered discharge care during clinical clerkships. Our curriculum was developed to address this need, with the goal of introducing students to the patient safety risks of hospital discharge, helping them identify barriers to effective care transitions as well as patient-centered solutions for these transitions.

This session introduces medical students to challenges patients and providers face during care transitions, specifically, the transition after discharge from an inpatient hospital stay. Patient-centered discharge care is critical to teach in clerkships: Studies have shown that patient-centered discharge care may reduce rehospitalization rates as well as ensure patient understanding after discharge.⁴ Additionally, these skills are necessary to be a successful intern.¹⁰ The purpose of this workshop experience is to foster the use of best communication-skills practices and team collaboration in discharge education and planning through reflective observation and role-play. Learners first identify common challenges faced when providing effective care transitions and then identify solutions to encourage patient-centered discharge care practices. As part of this curriculum, students also have the opportunity to be directly observed providing discharge care and to receive feedback using an observation tool. This curriculum supports the learning of core the Entrustable Professional Activity (EPA) addressing care transitions (EPA 8); Patient Care (PC), Practice-Based Learning and Improvement (PBLI), Interprofessional Collaboration (IPC), and Interpersonal and Communication Skills (ICS) competencies through the practice of completing discharge education with patients (PC7, ICS1, PBLI8) and the discharge process (PC8, IPC1); and PBLI through receiving feedback regarding discharge care (PBLI5).¹¹

The session includes a teaching video followed by small-group reflective exercise. The patient case represented in the video is a fictional but realistic scenario developed by combining common discharge practices with a high-risk patient (new diagnosis, high-risk medication, undisclosed visual impairment). The exercise provides an opportunity for students to discuss interprofessional collaboration and teamwork. The content of both the video and the video worksheet is based upon a literature review performed by us and upon clinical experiences. The literature review included searching PubMed with the major search terms *curriculum*, *patient discharge*, *undergraduate medical education*, *medical students*, and *clinical clerkship*. The literature review also included searching MedEdPORTAL with the major search terms

curriculum, discharge, discharge education, patient discharge, and evaluation. The direct observation tool was created in a format similar to that of the Clinical Evaluation Exercise with a focus on patient-centered discharge care, again with content created using the above-mentioned literature review. If time permits, role-play exercises are available as well.

Methods

This workshop is ideally intended for undergraduate medical students throughout the year who are about to begin their internal medicine clinical clerkship. It may also be used at the start of the third year or with fourth-year students or preclinical students. The workshop is designed to be completed prior to starting on the wards during the internal medicine clerkship, and the discharge education tool (Appendix G) is designed to be used while the students are on the wards.

The workshop is designed for a medium-sized group setting (20-40 participants) and takes 45-60 minutes: 5-10 minutes for introduction and background on posthospital care transitions, 8 minutes for the video (Appendix A), 10 minutes for small-group discussion, 15-20 minutes for large-group debriefing, and 5 minutes for evaluation.

The session may be longer (60-90 minutes) if additional activities are completed: 5-10 minutes for introduction and background on posthospital care transitions, 8 minutes for the video (Appendix A), 10 minutes for small-group discussion, 15-20 minutes for large-group debriefing, 5-10 minutes for Role-Play Exercise 1 (Appendix D) with 10-minute large-group debriefing, 5-10 minutes for Role-Play Exercise 2 (Appendix D) with 10 minutes for large-group debriefing, and 5 minutes for evaluation.

The direct observation tool (Appendix G) is designed for use on the wards to directly observe a student providing discharge education to a patient. It can be completed by either a supervising resident or an attending physician. In our curriculum, the students are required to complete this direct observation encounter at least once. The student asks either a resident or an attending physician to observe the encounter, complete the direct observation tool, and provide feedback. Residents and faculty were introduced to the tool and exercise by the clerkship director at regularly scheduled faculty and housestaff meetings and by e-mail. The attending or resident observer is responsible for coming up with an action plan suitable for areas that need remediation, and the direct observation tool has a free-text area in which this plan can be written. Students who require remediation are encouraged to repeat the exercise so that they can incorporate the feedback and demonstrate improvement. If this remediation is unsuccessful or if the deficits are severe, the resident or attending is encouraged to refer the student to clerkship leadership for formal remediation. This requirement was implemented without obstacles and was easily feasible for students to complete during their 10-week clerkship.

Tips for Success

Prior to the workshop, prepare copies of the blank video worksheet (Appendix B) and workshop evaluation forms (Appendix F) for all participants. The workshop facilitator should have a copy or copies of the completed video worksheet (Appendix C). Please ensure that the audiovisual equipment in the room includes sound and projection capabilities to allow showing of the teaching video (Appendix A). The video file is large and is best accessed via an Internet connection or from a USB drive.

Given the size of the file, if there is no Internet connection available in the conference room, it is best to upload the video to a USB drive and play it via QuickTime or Windows Media Player on a laptop computer. It is important to test the video and sound system on the computer and projector prior to the workshop to ensure everything is working properly ahead of time. If pressed for time, assign just one category on the video worksheet to each small group to observe and discuss. Then, discuss solutions with the larger group all together.

Limitations

This workshop only allows trainees to practice patient-centered care skills through a limited role-play exercise during the workshop and a directly observed discharge education encounter. One area for expanding this curriculum would be to include additional scenarios for role-play practice. Additionally, we could create a standardized patient exercise for additional practice and observation. We could also create additional direct observation requirements and tools. Next steps include adapting the curriculum for the subinternship.

Workshop Suggested Schedule

1. Introduce and give appropriate background on posthospital care transitions.
 - a. Patients' hospital courses are becoming increasingly complicated.
 - b. Care transitions are both a patient safety issue and a quality issue.
 - c. Review and discuss the Agency for Healthcare Research and Quality definition of patient-centered care (available at <http://www.ahrq.gov/>).
2. Distribute blank video worksheets (Appendix B) to all participants.
3. Divide participants into small groups of four to six students to discuss their observations after the video. Instruct participants to document on the worksheet their observations of problems observed, as well as suggestions for improvement, while they are viewing the video.
4. Play the video (Appendix A) in its entirety.
5. Begin the small-group sessions. Encourage participants to share within the group what was documented on the worksheet and to brainstorm potential solutions.
6. Debriefing session.
 - a. Go around the room, and ask a spokesperson from each group to share the key points from that group's discussion. If time is short, you may assign one type of problem (patient safety, handoff process, etc.) to each group. Consider writing what the students say on a whiteboard or easel to facilitate conversation or to highlight key concepts.
 - b. Potential prompts to facilitate discussion:
 - i. What went well in the transition process? What went poorly?
 - ii. What patient-centered approaches could be useful in improving the care transition?
 - c. When the students have completed discussing each category, review the completed video worksheet, and add any concepts the students missed or highlight important concepts that the students discussed.
7. Role-play exercises: Each of the following two exercises requires two student volunteers, one to take the role of the medical student and the other to take the role of the patient. Student instructions and facilitator answer sheets are provided (Appendix D). Have two volunteers in small or large groups perform the role-play. Have the observers discuss the questions after the role-play in small groups together. Perform the debriefing by asking a member from each group to share the key points from that group's discussion. It may be helpful to write what is said on a whiteboard or easel to facilitate group discussion. If pressed for time, you may assign one question for each small group to focus on.
 - a. Primary care physician handoff role-play: Have the students practice a more effective handoff to the primary care physician for the patient in the video. If time allows, replay the video clip of the handoff. At the completion of the exercise, you may hand out the example of a possible more-effective role-play (Appendix E).
 - b. Patient discharge phone call exercise: The students next practice a 48-hour postdischarge phone call with the patient in the video.
8. Participants will likely discuss something that was not included in the completed worksheet (Appendix C). We encourage facilitators to contact us via e-mail to let us know about new additions. The handouts are not exhaustive.
9. Distribute the workshop evaluation form (Appendix F) to all participants. Incorporate feedback to improve subsequent workshops.

On the Wards: Observed Discharge Education Exercise

To facilitate meaningful observation and feedback, our discharge education observation tool is provided (Appendix G). Each student should be observed as frequently as possible completing discharge education with patients whom he/she has followed on the wards and who are preparing for discharge from the hospital. The observation may be completed by either a senior resident or an attending physician. The tool contains five brief questions, a free-text section for areas of improvement, and a free-text section for an action plan. Both the evaluator and the student must answer the question “Was this a helpful educational experience?” on a Likert-type scale before the evaluation is complete. This question is in place to ensure that the feedback has been shared directly with the student in a timely manner.

Results

This curriculum has been used with four groups of medicine clerkship students (a total of 85 students) at our institution during the 2014-2015 academic year. It has also been presented at one regional conference as an oral presentation (Midwest SGIM 2015) and at one national conference as a poster presentation (CDIM 2015). The video has been posted on Vimeo (bit.ly/posthospital) and viewed over 45 times.

Evaluations of this workshop at our institution demonstrated that 92% ($N = 75$) of participants agreed or strongly agreed that the workshop would be helpful in practicing effective discharge education. Ninety-six percent of participants agreed or strongly agreed that the session would help them “provide patient-centered care” during care transitions. Eighty-eight percent of students reported they gained new knowledge, and 89% of participants found the session engaging. Ninety-three percent of participants found the video helpful in highlighting negative consequences of an improperly performed care transition, and 88% of participants agreed that the session helped highlight strategies to improve patient-centered discharge care. Representative comments about the most useful aspects of the workshop included “the practical points that must be hit when discharging a patient” and “talking over ways to improve each pitfall.”

Data from the discharge education observation cards from 94 observers demonstrated on a Likert scale of 1 (strongly disagree) to 5 (strongly agree) an average score of 4.29 that the observation was a helpful educational experience. The average score for students was 4.27 ($N = 79$). The average amount of time spent during the observations was 19.4 minutes, with a standard deviation of 12.9 minutes. Of the 114 completed discharge education observation tools, 84.2% of the cards included comments. The comments in the Areas for Improvement/Comments section included themes of positively reinforcing what was done well (“great that you made sure pt can pick up meds, used teach-back method”), communication skills (“keep asking open ended questions and focus on leaving silence for patient to fill”), medical jargon (“very skilled at explaining complicated medical information in lay language,” “work on decreasing medical jargon”), and medications (“liked that he assessed ability of patient to take medications”). The comments that were provided in the Action Plan section included themes of communication (“keep asking open ended questions,” “utilize teachback during next d/c”), decreasing medical jargon (“continue to work on simplifying jargon”), and continued practice of discharge education (“continue reviewing discharge plans with patients”).

Discussion

A strength of this workshop is that it focuses on the patient perspective and how to ensure discharge planning is effective for each individual patient. The workshop itself is interactive, with multiple small-group exercises, and encourages participants to identify problems and brainstorm solutions. This dynamic setting engages the participants and helps to solidify the teaching points. Additionally, the curriculum highlights the importance of interprofessional collaboration and teamwork. The timing of having the workshop completed before trainees start on the wards helps to encourage patient-centered care and best practices very early in clinical practice.

The direct observation tool is another strength of the curriculum. This tool helps facilitate meaningful and real-time feedback for the students while they are taking care of actual patients on the wards. This helps solidify best-practice behaviors and allows for constructive feedback on areas that can be improved. The tool is brief and user friendly, allowing for this exercise to be completed without difficulty during busy ward days. It also can be completed by residents or attendings depending on time constraints. Possibly secondary to time constraints, the tool was more frequently completed by residents than attendings. It was easily implemented without obstacle. Whereas direct observation of discharge education occurred infrequently before implementation of the tool, we learned that after implementation, the observations occurred and were considered to be valuable by both the observer and the student.

This resource is not a comprehensive curriculum on patient-centered discharge care; such a curriculum would require a longitudinal approach at multiple levels of training. However, it can be used to help determine competency goals and design milestone assessments for third-year students as part of a larger curriculum. In order to design a longitudinal curriculum, the level of expected competency in a graduating student should first be defined. Similar definitions of expected competency should then be determined for each subsequent level of training. Our curriculum, tools, and findings can help inform and design the third-year portion of a curriculum and expected competencies for a third-year student. In addition, creating a milestone assessment tool based on our work that includes specific anchors would be important, and performing validation of such an instrument would also be helpful. Opportunity for students to practice and receive feedback on discharge education skills in a standardized setting, such as an OSCE, would be helpful. Later, adding an OSCE or exercise to a capstone course in the fourth year would also be worthwhile.

Additional further work includes incorporating this curriculum into the subinternship and a pre- and postworkshop assessment of students' opinions and knowledge regarding discharge care.

This resource, which includes only one patient case, does not illustrate or discuss every potential barrier to effective discharge care. Further instruction and discussion of the literature surrounding patient safety and quality as they relate to care transitions would also be helpful. Also, it is important for trainees to be introduced to risks unique to their home institution, which may not be included in our tool.

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Prior Presentations

Lyons MD, Cifu A, Pincavage AT. A curriculum to optimize medical student experience with patient-centered discharge care. Presented at: SGIM Midwest; August 27-28, 2015; Cleveland OH.

Lyons, MD, Pincavage AT, Cifu A. A curriculum to optimize medical student experience with patient-centered discharge care. Poster presented at: AAIM Academic Internal Medicine Week; October 8-10, 2015; Atlanta, GA.

Lyons, MD, Pincavage AT, Cifu A. An innovative curriculum to optimize medical student experience with patient-centered discharge planning and post-hospital patient care. Poster presented at: University of Chicago Pritzker School of Medicine Medical Education Day; November 19, 2015; Chicago, IL.

Willcox, MD, Pincavage AT, Cifu A. An innovative curriculum to optimize medical student experience with discharge planning and post-hospital patient care. Poster presented at: University of Chicago Pritzker School of Medicine Medical Education Day; November 20, 2014; Chicago, IL.

Willcox, MD, Pincavage AT, Cifu A. Medical student experience with discharge planning and post-hospital patient care. E-poster presented at: ACP Illinois Northern Residents' and Medical Students' Day; October 10, 2014; Chicago, IL.

Ethical Approval

This publication contains data obtained from human subjects and received ethical approval.

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