

Safety threats and opportunities to improve interfacility care transitions: insights from patients and family members

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Aim: To explore patients' and family members' perspectives on how safety threats are detected and managed across care transitions and strategies that improve care transitions from acute care hospitals to complex continuing care and rehabilitation health care organizations.

Background: Poorly executed care transitions can result in additional health care spending due to adverse outcomes and delays as patients wait to transfer from acute care to facilities providing different levels of care. Patients and their families play an integral role in ensuring they receive safe care, as they are the one constant in care transitions processes. However, patients' and family members' perspectives on how safety threats are detected and managed across care transitions from health care facility to health care facility remain poorly understood.

Methods: This qualitative study used semistructured interviews with patients (15) and family members (seven) who were transferred from an acute care hospital to a complex continuing care/rehabilitation care facility. Data were analyzed using a directed content analytical approach.

Results: Our results revealed three key overarching themes in the perceptions: lacking information, getting "funneled through" too soon, and difficulty adjusting to the shift from total care to almost self-care. Several patients and families described their expectations and experiences associated with their interfacility care transitions as being uninformed about their transfer or that transfer happened too early. In addition, study participants identified the need for having a coordinated approach to care transitions that engages patients and family members.

Conclusion: Study findings provide patients' and family members' perspectives on key safety threats and how to improve care transitions. Of particular importance is the need for patients and family members to play a more active role in their care transition planning and self-care management.

Keywords: safety threats, patient and family perspectives, care transitions

Introduction

Care transitions include a set of actions designed to ensure the coordination and continuation of health care as patients transfer between different locations or between levels of care within the same clinical setting.¹ Patients with complex care needs frequently require care in multiple care settings and are particularly vulnerable to poorly executed care transitions where lost information can pose significant threats (eg, failing to adhere to care plans, misusing medication, receiving poor follow-up).^{2,3} Moreover, poorly executed care transitions can result in additional health care spending due to adverse outcomes (eg, increased lengths of stay, readmissions, and consequences of medication errors)³⁻⁸ and delays as patients wait to transfer from acute care to facilities providing different levels of care.⁴

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To date, our understanding of transitions in care has been focused on transfers either within acute care organizations or to the home setting.^{1,6} However, transitions in care are highly sensitive to variations in context and may be experienced differently from different patient populations transferring across the health care system.¹ Of particular importance is gaining insight into transfers from acute care to complex continuing care and rehabilitation (CCC/rehab) settings. CCC/rehab settings are uniquely situated in the health care continuum, as they shift the focus of priorities from life and death to the return of function, health, and wellness.⁹ When being transferred from one organization to another, patients and their families play an integral role in ensuring they receive safe care, as they are the one constant in care transitions processes.⁸ Acknowledging patients and families as safety experts and valuable sources of information about the quality of care transitions is important.¹⁰⁻¹² This view is grounded in a growing body of literature that suggests that patients and families can identify harmful and potentially harmful events that remain otherwise undetected.¹⁰⁻¹⁴

Despite the clear impact patients and their families can have on improving safety, there are relatively few studies that elicit the patients' and family members' perspectives on safety threats or on their role during care transitions from acute care hospitals to organizations providing other levels of health care (eg, rehabilitation and complex care settings).⁹ To address this gap, a qualitative study explored patients' and family members' perspectives on how safety threats are detected and managed across care transitions and strategies that improve care transitions from acute care hospitals to CCC/rehab health care organizations.

Methods

Aim

Our study explores patients' and family members' perspectives on how safety threats are detected and managed across care transitions and strategies that improve care transitions from acute care hospitals to CCC/rehab health care organizations.

Design

This study used a qualitative design methodology of interviews with patients and family members over a 6-month period. Data were analyzed using a directed content analytical approach.

Study setting and transfer process

The study involved two participating sites: an acute care hospital and a CCC/rehab organization. The acute care site

involved in this study is a large, academic, tertiary care facility that transfers around 60 orthopedic patients to the CCC/rehab organization on a monthly basis. The CCC/rehab site provides two core clinical programs: complex care and complex rehabilitation, resulting in 2000 admissions each year. The acute care site is their primary referral partner and accounts for over 40% of the CCC/rehab site's total admissions and 50% of rehab admissions.

The current process for the transfer of patients from the acute care hospital to the CCC/rehab facility (both publicly funded by the Government) involves several people (eg, health care professionals, administrators, and clerical staff) and steps. The case manager at the acute care hospital creates an electronic referral for patients when they are getting closer to being discharged. Once the referral has been initiated, health care professionals can document their assessment information (eg, infection status, oxygen levels, mobility/functional status and care requirements, medical status, social situation/issues, behavior, diet, skin condition, bladder/bowel management) on the form. The authority to discharge is determined ultimately by the most responsible physician, in consultation with other health care professionals, who writes the order for discharge and transfer. The case managers, working closely with clerical staff, prepare the transfer record, which includes a discharge summary written by the physician, interprofessional notes around the patient's status, and medication reconciliation prepared by the pharmacist. Patients are transferred over by ambulance to the CCC/rehab facility, where they are received by the admitting office and then brought to the specialized rehabilitation unit.

Data collection

An open-ended interview guide (Table 1) was used to elicit the experiences of patients and/or family members associated with safety threats across the transition points. Eligibility criteria for patients included the following: >18 years of age, able to understand English, able to provide consent, and to be discharged from an acute care site to a CCC/rehab site. The recruitment process of patients and/or family members involved research staff identifying with clinical staff which patients met the criteria for inclusion. Those who met the criteria were then approached initially by clinical staff, and if they agreed to hear more about the study, research assistants approached the patient and/or family member, provided an overview of the study, and obtained consent. The research assistants were trained by the principal investigator (PI), an experienced qualitative researcher, on techniques for interviewing.

Table I Interview guide**Interview questions**

Who did you think would be/should be involved in coordinating your care at the hospital and your transfer over to the CCC/rehab facility?

Who actually was involved in coordinating your care at the hospital and your transfer over to the CCC/rehab facility?

Who is involved in coordinating your care at the CCC/rehab facility?

What information around your care and/or transfer over and admission to the CCC/rehab facility did you receive? Who provided the information to you? How was the information provided to you? What was the nature of the information?

What were your expectations around your care at the hospital and your transfer over to the CCC/rehab facility?

What do you think should have happened around your care at the hospital and your transfer over to the CCC/rehab facility?

Did you experience any gaps in your care? By gaps in care I mean a part of your care you expected to receive or participate in but did not.

What around your care at both institutions and with the transfer from the hospital to the CCC/rehab facility do you recommend could be improved?

Abbreviation: CCC/rehab, complex continuing rehabilitation.

The interview guide included open-ended questions derived from a literature synthesis about what is currently known about safety threats and was designed by the PI (LJ) and one of the coinvestigators (SK). Interview guide questions aimed to gain insight into study participants' perceptions and expectations on who should be and who was involved in coordinating the care transition, what information was received around the care transition, and what could be improved around the care transition. A research staff member conducted the interviews, which were then transcribed.

Ethical considerations

Ethics approval was obtained at both participating institutions. St Michael's Hospital Research Ethics Board approved the research study on September 7, 2010, and Bridgepoint/West Park/Toronto Central CCAC Research Ethics Board approved the research study on September 23, 2010. Consent was obtained from all study participants prior to conducting the interview.

Data analysis

Transcripts were analyzed using a directed content analytical approach.^{15,16} An iterative process of data collection and analysis was employed as preliminary analysis began after the first four interviews were conducted, to enable consideration of potential themes and refinement of the interview guide. The remaining analysis of transcripts was also iterative in nature where development of themes, subthemes, and subcategories was added to reflect variations in data.

Specifically, our analytical process included the following steps. First, two research assistants independently reviewed the first four interview transcripts line by line to identify sections of text that serve as codes. Second, the two research assistants met to discuss the codes and subsequently grouped the codes into similar content categories to form the initial coding schema. Third, as a cross-checking measure, the initial coding schema was reviewed by the PI, who compared her

codes and categories from the interview transcripts with the coding schema. Fourth, the remainder of the analysis included grouping similar codes together to form overall themes with supporting categorical data. Fifth, to ensure methodological rigor of the dataset, the PI developed an audit trail that included the triangulation of responses to the open-ended questions and the summative content analysis.¹⁶ Sixth, the PI applied the emergent coding schema with all of the original transcripts to create a revised coding schema. Seventh, this revised coding schema was then reviewed, and consensus was achieved among the research team.

Results

Participant characteristics

In total, 22 study participants were involved, with 15 patients and seven family members interviewed. All interviews with family members involved the patient, with the exception of one interview, which was done with the family member only after consent was provided by the patient. Of the seven family members who participated in the interview, five were spouses of the patient and two were children of the patient. The mean age of patients was 73.6 years with a range of 42–85 years of age. Table 2 provides more details on the demographic profile of the patients.

Themes

The analyses of the narrative dataset from the interviews with patients and families revealed three key overarching themes: lacking information on care transition, getting funneled through too soon, and adjusting to shift from total care to almost self-care. In addition, study participants identified the need for engaging patients and family members in coordinated care transitions. Table 3 provides a description of each of these themes.

Lacking information on care transition

With regard to the first theme, study participants described safety threats associated with their care transitions in the

Table 2 Patient demographic profile

Demographic characteristic	Details
Reason for admission	Fracture (n = 14) Rotator cuff right shoulder (n = 1) Hip dislocation (n = 1)
Past medical history	Cardiovascular-related disease (n = 10) Musculoskeletal-related disease (n = 8) Respiratory disease (n = 3) Renal disease (n = 3) Neurological related (n = 3) Eye-related disease (n = 3) Cancer related (n = 2) Endocrine related (n = 2) Alcohol abuse (n = 2) Infectious disease related (n = 1) Personality disorder (n = 1)
Reason for readmission (n = 3)	Hip dislocation Delirium Bowel obstruction
Family support/living arrangements	Lives alone (n = 9) Lives with husband/wife/partner (n = 7)

following three ways. Several patients and families described their expectations and experiences associated with the transfer from the acute care site to the CCC/rehab site as one where they were uninformed around their transfer. Patients and family members also described not knowing what to expect, including the time and location of the transfer, and feeling overwhelmed. A few study participants also described having no discussion or input at all as to where they preferred to be transferred.

So I didn't really know what to expect, coming here from there. They also said I couldn't either eat or drink. I was puzzled by the not drinking, because I got terribly dry. Now I laugh when you say plan, nobody said a plan for me from the beginning that I know of. It's been one day at a time ... An hour later the guys with the stretchers arrived and I'm not even sure he told us. I think we had to ask where are

we going. You're under an illusion if you think that anything is explained. You are simply told. You're going to surgery. And you don't know where you're going, you don't know how the transfer's happening, you don't know anything. I had no idea what to expect. I don't remember any explanation of anything. But I don't think that they've cared about keeping me informed in anyway. (Patient)

It wasn't really a discussion or anything it was just that she was going to be transferred. (Family Member)

Getting funneled through too soon

Patients and family members also commented on being transferred too early. This theme included the view that the patient was not yet ready or feeling prepared for transfer, due to not being fully recovered from their injury (eg, 3–4 days postoperative), physiological status (eg, low hemoglobin), and cognitive status (eg, exhibiting signs of delirium). Patients described this as feeling that they were “being funneled through too soon” and “just a piece of baggage that is being moved from A to B.” This theme also included study participants’ descriptions of the receiving CCC/rehab site not being ready to admit them (eg, bed not ready for patient).

It was a little overwhelming because of the fact that all of a sudden these people are, in a short span of time, you know are asking you a bunch of things, are talking about a bunch of things, whereas for me it was still pretty early in my recovery so I was still trying to take in the whole thing. So it was a whole lot of information coming in all at once, and then getting poked and prodded and then getting all your tests done. So I guess it was a little disconcerting at the beginning, because I was told one day removed from the surgery, you'd be moved to a rehab facility in about 3 or 4 days. There is a feeling like you're getting funneled through a system, whereas you know like you got this wrong, you got operated on, and now we're going to move you over here. It's supposed to make you

Table 3 Theme descriptions

Theme	Description
Lacking information on care transition	This theme reflects study participants’ perceptions of being uninformed, not knowing what to expect, and having no discussion or input into their care transition experience
Getting funneled through too soon	This theme reflects study participants’ view of being discharged too early, not feeling prepared for transfer due to their health status (illness recovery, physiological, and cognitive), and the receiving organization not being ready to admit them
Adjusting to shift from total care to almost self-care	This theme reflects study participants’ description of how adjusting from total to almost self-care was challenging, particularly around managing their medications
Engaging patients and family members in coordinated care transitions	This theme reflects study participants’ suggestions to improve care transitions that include engaging patients and family members in their care and having a coordinated approach to care transitions

feel like we have to move you over there because we need this bed. But thankfully, I felt okay by the time we actually left, so I wasn't panicked about coming. (Patient)

The acute stage was not finished when he was transferred, but he was not ready to be put into the hospital which was basically a self-care hospital and that twenty-four hour transition should have been more softly handled. It seemed like a day too soon. (Family Member)

You'd have to check that out whether all conditions were okay for him to be transferred. He had low blood pressure, he had low haemoglobin, he had lost a litre and a half of blood at the surgery, and he was under too much influence of medications ... still totally delirious. So to me those conditions should have been cleared up better. (Family Member)

Adjusting to shift from total care to almost self-care

Study participants described having to adjust to the shift from receiving total care at the acute care site to almost self-care at the CCC site. Key self-care activities that patients had to manage once transferred over to the CCC/rehab site included managing their medications and increasing functional status/mobility. Interestingly, although many study participants described knowing that the transfer to the CCC/rehab site meant getting exercise and therapy to walk again, many were surprised by the shift from total care to almost self-care.

So we were confident in his ability of succeeding with a healthy total recovery. [However] the information we have has been lacking because we don't know that there's going to be the total care to almost self-care. (Family Member)

I was very surprised that I have to in a sense manage my own meds. I don't get a painkiller unless I specifically ask. They don't always remember my diabetic meds unless I ask, and I find that quite strange, but once I understood that then I can say you know can I have my meds before my breakfast right? (Patient)

Engaging patients and family members in coordinated care transitions

Several study participants also described strategies to improve care transitions from the acute care site to the complex care site. Specific strategies included engaging patients and family members in their care and having a coordinated approach to care transitions. First, patients and their family members described wanting more time spent with health care providers to explain procedures and give more background information

to assist in their understanding of the transfer process and to be more involved in their recovery planning.

Explaining the procedure so that there's clarity from the patient's point of view to help mitigate anxiety. I think reassurance and clarity as to what's supposed to happen and then make sure the patient realizes that it's happening step by step. I think it would be essential if there was going to be a delay, that it should be explained why and roughly for how long. I think just to keep communicating with the patient would be about the most important thing so they feel part of it, not just like a piece of baggage that's being moved from A to B. I would have found it helpful if there was a fact sheet that the family could be given with basically, these are your options for rehab and list whatever ones are in the city so that we could at least be able to indicate where for the family would be more convenient to have her do her rehabilitation just from the point of view of being able to visit and get to her easily. I would have felt a little more comfortable if I could've been assured that they would do their very best to keep me somewhere near where we live. (Family Member)

It would be nice if whoever coordinates that actual transition spends a little bit more time with the patients that are getting transferred to actually tell them what's going to happen the day of the transfer and what's expected of them. I think if they would do a little bit more explaining to patients what to expect in the morning and you know as far as making sure everything's packed and making sure all that stuff ... I think that would have made the transfer a little easier. (Patient)

Second, patients and family members also described wanting a more coordinated approach to their care transitions that included having a point person they can go to for questions and having more consistency in caregiving.

Maybe also just a point person. So if we had known when we left Hospital A, okay so and so is your point person for your care when you come to Hospital B that would have given us some comfort as well. (Family Member)

Discussion

Our study provides an analysis of patients' and family members' experiences and insights into improving care transitions. To our knowledge, this is the first study to describe patients' and family members' experiences and perceptions associated with interfacility care transitions involving acute care and CCC/rehab sites.

Study participants shared how gaps in information and not being involved in their care transition processes created key safety threats. In their view, patients and family members had to wait for information and explanations on their transfer and did not have a say as to where they would be transferred. For some study participants, this lack of engagement was experienced as not listening to their preferences and associated with discomfort around not knowing what was going to happen next. This finding is consistent with various studies that reported gaps in (1) information transfer among different levels of care, (2) planning and discharge instructions, and (3) fulfilling expectations of patients.¹⁷⁻¹⁹ Underpinning all of these gaps is ineffective communication between patients and health care professionals.

Our inferences warrant further attention, as there is a growing literature base on the risks associated with lack of respect for preferences and engagement of family or friends in their care. This work also includes studies linking patient-centered and quality improvement efforts in the hospital^{20,21} and explorations of patients' and relatives' perspectives on failures in health care.^{12,13,21} For example, one study demonstrated that the rate of adverse events among elderly patients discharged from the emergency department was directly linked to how well they understood their discharge instructions, including how to recognize warning signs.²²

Patient and family concerns around timing of transfer and the transition to self-care also warrant further attention, especially among patients who may not be medically and/or cognitively prepared for such a transition. For some patients and family members, it was challenging to adjust from having more resources and health care professionals working with the patient in their recovery to being able to manage their own care at the complex care site. Interestingly, some patients linked the speed of the transfer process to the need to free up a bed in the acute care site. Although not the focus of the current study, as the demographic Table 2 indicates, three patients were readmitted to the index hospital, one of which was for delirium, which suggests that in some cases the patient may indeed have been transferred too early.

In summary, the three key themes around what patients and family members view as key safety threats in their care transition experience are important to consider in their healing and recovery. Not surprisingly, to mitigate the aforementioned safety threats, study participants also offered ideas about how to improve care transitions to ensure they experience positive health outcomes and a smooth recovery from their injury. The need for a more coordinated approach that engages patients and family members in their care

transitions is echoed in the call for patient-centered care and satisfaction,^{20,23} and the view of patients and families as safety experts.^{10,13,14}

Collectively, this growing body of literature suggests that patient and family engagement in their care planning at different transition points, including listening to what they perceive as safety threats and providing opportunities for decision making in their care, will result in better care. Moreover, engaging patients and family members will also enable a greater understanding and assessment of what interventions may be effective, including the timing of when information should be exchanged around the patient's recovery and care planning.²⁴ Having a more coordinated approach to care transitions will ensure better care design and service planning for care transitions.^{1-5,8,14,24,25} Key to these efforts is having the responsibility of care coordination assigned to a professional or a team involved in the different levels of care.²⁴ In the context of the current study, there was no point person who followed up or connected with the transferring patients once they were admitted to the CCC site. Study findings point to the need to develop and test out interventions aimed at a more coordinated approach that engages patients and family members in their care transitions.

There are promising signs of better care transition experiences. A transitional care model, a nurse-led, team-based care delivery innovation, has reported better clinical outcomes with reduced health care spending.^{2,5,26-28} A transitional care model approach includes comprehensive discharge planning with patient and caregiver goal setting and care planning in hospital with follow-up interventions.²⁶⁻²⁸ Follow-up interventions range from daily home videophone or telephone monitoring with self-care instruction and symptom management,²⁹ assigning a nurse as the leader of care,²⁸ or having a transitions coach^{27,28} to in-person home visits to discharged patients. This foundational work should guide efforts in future interventional research studies aimed at enhancing care transitions from the acute to CCC/rehab health care setting. Future work should also explore the use of technology (eg, telehealth methods and smart phone applications) as a means of obtaining information around patients' health status, care, and discharge planning with patients and families during their care transitions. There are promising signs of using technology to increase the information available to patients and providers to improve care transitions, disease management, and safety.³⁰

Study findings need to be interpreted with the following limitations. The first limitation is sample size and selection bias due to our study cohort representing a small sample of

nonelective orthopedic patients transitioning between one acute care hospital and one CCC/rehab site. Thus, our study findings may not hold true for other orthopedic patients from other health care organizations or other patient populations. The second limitation is the biases associated with the self-reporting of safety threats and recommendations to improve care transitions by patients and family members. The third limitation is researcher bias, which is inherent in qualitative research. Steps to mitigate biases include recruiting a patient cohort that varies in age, medical history and reason for admission, using an open-ended interview guide to elicit patients' and family members' perspectives, and having three of the research team participating in the analysis. Despite these limitations, our study findings provide important insight into safety threats, challenges, and opportunities for improving interfacility transfers.

Conclusion

A renewed focus has been placed on ensuring effective care transitions as a key strategy for minimizing health care spending by achieving optimal clinical outcomes and reducing both the length of stay in, and readmission to, acute care hospitals. Our study provides insights from patients' and family members' perceptions on their care transition experience from an acute care site to a CCC/rehab site. Of particular importance is the need for patients and family members to have a more active role in their care transition planning and self-care management. Key to these efforts is ensuring that patients and family members understand and feel welcome to contribute to their care transition experiences. Engaging patients and families in their care transition planning is an integral step in their path to recovery.

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Author contributions

The primary author (LJ) was the principal investigator; made substantial contributions to conception and design,

acquisition of data, and analysis and interpretation of data; drafted the article and revised it critically for important intellectual content; and provided final approval of the version to be published. The other four authors (CB, JM, SK, and RL) contributed to the conception and design of the study and review and final approval of the version to be published.

Disclosure

The authors report no conflicts of interest in this work.

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