

Implementing a Transitional Care Program to Reduce Hospital Readmissions Among Older Adults

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This research examines the early implementation of an evidence-based intervention, adapted from the Coleman Care Transitions Intervention and community-based models, aimed at reducing preventable hospital readmissions among older adults. To better understand program implementation, we conducted and analyzed in-depth interviews on the basis of the Promoting Action on Research Implementation in Health Services conceptual framework. Contextual factors, evidence support for the intervention, and facilitation techniques should be taken into account when implementing transitional care programs. **Key words:** *coaching, implementation science, older adults, PARIHS, readmissions, transitional care*

THE TRANSITION from the hospital to the home or other postdischarge care setting is frequently a period of discontinuity and fragmentation and can pose significant challenges for older adults. Errors often occur during this time as a result of poor coordination or communication, changes in medication regimens, and difficulty following postdischarge instruc-

tions as individuals reassume primary responsibility for their own care and follow-up after a significant, potentially disorienting event.^{1,2} Adverse events due to these factors are not uncommon, often leading to preventable hospital readmissions.³ This is especially true among older adults who may not have the support necessary to maintain their health outside of the hospital and are, therefore, particularly vulnerable to untoward consequences including preventable readmissions.^{4,5} These readmissions are not only costly to the health care system but ultimately decrease patient satisfaction, negatively impact patients and their families, and may be indicative of other aspects of poor quality care.⁶ Identifying new ways to address the transition from hospital to home benefits patients and their caregivers and will continue to be an important issue as the US population ages.

In response to these concerns, increasing numbers of transitional care programs have been implemented across the country and several have been documented in the literature.^{7–12} However, there exists a gap in research on how to actually implement effective transitional care programs in

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real-world community settings, particularly among a medically diverse group of older adults. Whereas other transition programs have focused on a particular subset of adults or those being discharged to a nursing home facility, the current study intervention includes a wide variety of patients returning to home-based settings.

The study uses qualitative methods to examine a pilot program's early effort to facilitate transitions among patients at high risk for preventable readmission. The pilot program was developed on the basis of a strong body of evidence of successful transitional care programs, particularly the Coleman Care Transitions Intervention (CTI),¹³⁻¹⁵ the Institute for Healthcare Improvement's State Action on Avoidable Rehospitalizations initiative,¹⁶ and other community-based models for transitional care.¹⁷⁻²³ Initially, 3 registered nurses and 1 licensed social worker were hired and trained in the CTI training program. The intervention consisted of several important activities: "teach back" discharge planning, post-discharge follow-up care, and engagement of

community partners; a full list of program components is given in the Table.

To improve discharge planning, hospital personnel were trained to implement teach-back methods that allow the patient to repeat and explain the newly acquired information to the provider. This method has been shown to be successful in clinical settings, especially among low-literacy populations and the elderly.²⁴ Next, program nurses were integrated with the outpatient case management group and implemented CTI protocols during home visits within 48 to 72 hours of discharge.^{13,15} Finally, the program partnered with a community agency that coordinates social services for high-risk older adults, particularly those who lack adequate support during the posthospital period. Program staff performed a biopsychosocial and environmental needs assessment of patients in their home. Findings were used to build individually tailored care plans, connecting the patients with appropriate community resources, including a wellness coach who continued to assist patients in need for up to 6 additional months.

Table. Key Components of Transitional Care Program

Component	Description
Medication Self-Management	Patient is knowledgeable about medications and has a medication management system.
Knowledge of "Red Flags"	Patient is knowledgeable about indicators that suggest that his or her condition is worsening and how to respond.
Follow-Up With Primary Care Physician/Specialist	Patient schedules and completes follow-up visit with the primary care or specialist physician and is prepared to be active participant in these interactions.
Patient-Centered Record Community Services	Patient understands and uses the personal health record. Patient has key community services in place to live independently to maintain health. Lifeline is offered to provide a key safety net.
Support System	Patient has support network identified to prevent isolation and increased knowledge on who to call for assistance.
Home Health and Durable Medical Equipment	The skilled services and durable medical equipment are in place for the patient to recover at home.
Advanced Care Planning	Patient has a plan in place, which is communicated to appropriate family, caregiver, or providers.

Our qualitative analysis of this novel transitional care program borrows from scientific methods utilized in the field of implementation science. This burgeoning field of research studies the art of implementing interventions in the real world through a critical, scientific lens. It acknowledges that taking such interventions from theory to practice can often be complicated and messy, and the result may deviate from the original models designed in more controlled settings. As a result, the evaluation must be designed to capture the realities of program implementation as well as its effects. Guiding our evaluation is the use of a well-established conceptual framework for implementation science, Promoting Action on Research Implementation in Health Services (PARIHS).²⁵ The framework focuses on contextual factors, evidence, and facilitation techniques to examine the effectiveness of a particular intervention designed to improve care. In this case, the PARIHS model is applied to our analysis of the transitional care program to describe the successes and challenges of early program implementation, offering lessons learned to future initiatives.

METHODS

We examined the implementation of a transitional care program that was initially piloted on 1 unit of an acute care hospital from March 2012 to March 2013. This pilot program was designed to support high-risk, adult patients aged 65 years or older who were discharged from the hospital to their home (the 30-day readmission rate prior to this time was ~13%). The program was offered to qualifying patients free of cost. Patients were selected on the basis of high and very high risk, as determined according to a 3-level risk tool that took into account history of hospital utilization, comorbidities, number of medications, functional status, living status (eg, married, presence of caregiver), and cognitive status.

In-depth interviews were conducted with all staff and key members involved with implementing the program during the pilot phase. Participants were identified using purposeful

and snowball sampling techniques. Seven participants were interviewed: an interprofessional team of program staff (eg, nurses, social workers) and members of the program's steering committee. Interviews lasted between 1 and 2 hours and were conducted on-site in private locations. Participation was voluntary and informed consent was obtained for all interviews. A semistructured interview guide comprised questions adapted from the Organizational Readiness to Change Assessment, a validated instrument based on the PARIHS framework.²⁶ The Organizational Readiness to Change Assessment instrument measures health service implementation initiatives, especially those focused on quality improvement (QI). Main areas of interview included impressions of program implementation (eg, facilitators, barriers), organizational culture and relationship with transitional care efforts, definition of program success, and lessons learned for implementation of similar initiatives. All study activities were approved by the organization's institutional review board.

Interviews were audio recorded, professionally transcribed, and analyzed on the basis of the PARIHS framework. This heuristic attempts to "represent the complexity of the change processes involved in implementing research-based practice."²⁵ The PARIHS model outlines 3 components that affect the success of program implementation. *Contextual factors* capture the larger organizational context in which the program was implemented; *evidence* includes not only the body of scientific research but also how stakeholders perceive that evidence and intervention effectiveness; and *facilitation techniques* include how program leaders or other participants promote or limit the execution of the intervention.

Interview transcripts were organized using a priori codes on the basis of the PARIHS framework. These a priori codes included the broad categories of contextual factors, evidence-based practices, and facilitation techniques as major themes for analysis. Each of these categories was further analyzed in more detail using in vivo codes

that emerged from the data; these were labeled and analyzed as subthemes. Examples of subthemes included program changes, improvements, challenges, organizational culture, organizational values, continuous QI, enrollment, communication and coordination, suggestions/recommendations, and program successes. Analyses of the themes and subthemes resulted in data interpretation and synthesis of findings consistent with the PARIHS framework. Preliminary results from the analysis were presented to the program's advisory committee, consisting of program leadership and representatives from the hospital and community, for validation of initial study findings. In addition, findings were shared with the informants to achieve consensus on general accuracy of coding and subsequent generation of themes.

RESULTS

Interviews revealed that several factors affected the early implementation of a transitional care program for high-risk, older patients. These findings are organized later by overarching themes in accordance with the PARIHS framework. Themes are discussed in more detail and illustrated with corresponding quotes from the interviews.

Contextual factors

To understand successes and challenges of early program implementation, it was imperative to first gain a sense of the context or environment surrounding the intervention as reflected in the hospital's organizational culture. Closely related to this is the role of leadership.

Contextual factor 1: Organizational culture and role of leadership

Culture as reflected in both the hospital's values and the leadership style affected how frontline providers responded to the new transitional care program. Interviewees noted many elements of the hospital's culture that supported program implementation. This included hospital values or emphasis on "pro-

viding quality, patient-centered care"; being an "innovative health care provider"; and "promoting patient education." On the contrary, there was also a notion that the culture fostered a hierarchical top-down rather than bottom-up approach to operations that could affect implementation success and sustainability. This hospital environment, where changes must be strongly endorsed (if not initiated) by executive leadership, was a challenge for the pilot program. As one interviewee put it, "In the medical field, everything is protocol and you have to do that." Because hospital nursing staff followed set guidelines and rarely had the chance to consider new workflows, integrating components of the new transitional care program into existing discharge processes proved difficult at the beginning.

Thus, interviewees thought that it was critical for hospital leadership to actively promote the pilot program early on, thereby securing buy-in and support from frontline providers. According to several participants, gaining physician buy-in was especially key to patient's referral and enrollment into the program. This was due to observations that the older patient population tended to possess traditional beliefs, in which physicians' recommendations—including participating in a transitional care program—were heeded. Therefore, convincing the providers and hospital staff from the top-down to refer eligible patients would greatly facilitate the success of the program.

Contextual factor 2: Dealing with unforeseen circumstances

Other contextual factors came into play during implementation of the pilot program. Hospital-wide nurse strikes made it difficult for program staff to build working relationships with hospital staff. These strikes, along with several other hospital initiatives, such as incorporating newly required Centers for Medicare & Medicaid Services survey items into the hospital's existing patient satisfaction survey, and closing a nearby hospital-owned skilled nursing facility made it difficult for

hospital leadership to focus on actively endorsing the new transitional care program. Furthermore, an unexpected absence of a key hospital leader who was an early advocate of the program hindered initial efforts to promote the program. Hospital staff, therefore, had little knowledge of the new program and did not actively promote it to eligible patients. However, over time, relationships with hospital staff were built and awareness of the program improved.

Evidence versus challenges to program success

According to the PARIHS framework, the evidence of an intervention affects implementation success, where evidence includes both the findings of scientific research and staff perceptions of an intervention's effectiveness. The CTI model, on which the pilot program is based, has been known to decrease re-hospitalizations and lower hospital costs.¹⁵ Despite this evidence base, interviewed staff discussed prevailing challenges to the intervention that may hinder its successful implementation.

Evidence versus challenge 1: Beyond readmissions—defining program success

Before gauging the intervention's effectiveness, it was important to clarify what participants defined as program goals and by extension, program success. Although the goals of the intervention were explicitly laid out in staff training, interviewee answers varied considerably. Responses included reducing readmission rates, providing patient-centered care, helping patients do better at home, and improving patients' experiences. While most recognized that the chief stated goal of the program was to reduce hospital readmission rates among older adults, many indicated that true success was in understanding the patients' experience and helping them take charge of their own health care. Staff also noted that better medication management, increased patient satisfaction, and providing better quality of care to patients and their care-

givers were important aspects of program success that should be acknowledged and measured as part of the evidence.

Evidence versus challenge 2: The "ideal" patient for a successful program

One of the major perceived issues in demonstrating program success hinged on identifying and recruiting appropriate program recipients. Although a risk assessment tool was created to identify eligible patients at high risk for readmission, staff believed that this tool often failed to capture some patients who could benefit from the transitional care program. Patients who did not meet multiple criteria on the risk assessment tool were not considered eligible. At the same time, patients identified as being at high risk were often too sick to coach, as some patients suffered from severe dementia or terminal illnesses, making the program's goal setting and coaching nearly impossible.

Some interviewees suggested lowering the age limit of eligible patients, and others emphasized that age was less of a factor when compared with the patients' ability to be coached or take part in managing in their own health care. In other words, a patient who was newly diagnosed or in the initial phases of managing his or her chronic disease could perhaps benefit more from the program than someone labeled as at higher risk but closer toward the end of life. Related to this, many staff members agreed that another notion of the ideal patient might incorporate family or caregivers, especially if the patient was difficult to coach directly, such as patients with severe dementia. In these situations, the program staff would identify the caregiver and provide resources to that individual instead.

Evidence versus challenge 3: Readmissions happen!

The fact that most patients would eventually find themselves back in the hospital, regardless of what intervention programs were in place, brought up the concept of inevitable readmissions. This is not to say that the program was ineffective, rather it is important

to acknowledge that readmissions are bound to occur for some patients and to recognize limitations of the intervention despite its evidence base. As one interviewee explained: “You can do absolutely the best coaching job in the world and the person can embrace the program . . . and then something happens . . . and they’re in the hospital . . . these are people who have a lot of diseases that are going on all at the same time.”

Facilitation techniques

Finally, according to the PARIHS framework, we sought to understand how program staff, leaders, and hospital staff facilitated implementation of the pilot program.

Facilitation technique 1: Enrollment

The most salient implementation issue that every interview touched on was the importance of the enrollment process. Program staff initially found it difficult to recruit and enroll patients for a number of reasons. Enrollment took too long, was difficult to explain, patients did not understand the purpose of the program or want to participate, enrollment efforts were being wasted on patients who were ineligible as they were not being discharged to home, and a few of those enrolled ended up dropping out of the program. However, with increased experience among program staff, continuous QI efforts that were ongoing at the hospital, and increased partnership with hospital staff, the enrollment process improved. Program staff became more comfortable and competent in explaining the pilot program. Better understanding and support from the hospital staff, particularly the hospital’s lead case manager, meant more referrals and smoother recruitment.

Facilitation technique 2: Communication, coordination, and data sharing

Clear communication to help facilitate program efforts was another topic mentioned by many interview participants. In addition to the initial coordination challenges between hospital staff and leadership, communication

among stakeholders—from program funders and steering committee members to front-line staff—was important for continuing implementation efforts. In particular, frontline staff desired to be more aware of and involved in program direction and decisions. Others suggested an improved system of communication and data sharing among the transitional care program nurses, social workers, and wellness coach to coordinate efforts that would facilitate implementation. This included ensuring that all staff members have timely access to patients’ information and community resources.

Facilitation technique 3: QI

Quality improvement efforts at the hospital were a key facilitator in program implementation. The transitional care program was integrated into these quality efforts early on, which meant that adjustments to the intervention were being made even throughout the initial phase of implementation, allowing many of the aforementioned challenges to be addressed. With the assistance of a consultant trained in operational and process improvement, program changes such as improving the enrollment process and developing strategies to achieve program goals were addressed in a systematic manner. Overall, staff seemed to value the continuous improvement approach that enabled both program staff and leadership to handle many initial program challenges.

Facilitation technique 4: Transitional care program staff

Finally, the program nurses and social workers themselves could be considered as the greatest source of program facilitation. Their critical role can be seen through emphasis on the program’s coaching versus case management approach. One interviewee described coaching as “helping people become more of an active participant of their health care.” Other suggested approaches to facilitate transitional care including eventually moving beyond the hospital as the starting point for linking patients to nurse coaches and creating

these linkages in the community or primary care-based practices.

DISCUSSION

Although this transitional care program underwent many changes in the early stages of implementation, participants recognized that the changes were inevitable and necessary in the context of a pilot program. As reflected in the implementation science literature, this somewhat disordered trajectory is common in the initial stages of an intervention, even with the most evidence-based programs.²⁵ According to the PARIHS framework, understanding and, therefore, improving program implementation must take into account contextual factors, scientific and perceived evidence, and various facilitation techniques. Here, contextual factors, such as competing hospital initiatives, were initial barriers to implementing the pilot program. On the contrary, the existing organizational culture supported commitment to quality patient care and emphasis on innovation. The program is based on established evidence, such as the CTI and more community-based models, which staff recognized as excellent aspects of the program that add value to the patients' experience. Yet, nearly all staff believed in alternative views of program success, in addition to reducing readmission rates, including providing patient-centered care, helping patients do better at home, and improving patients' experiences. Finally, program facilitation was perhaps the most dynamic aspect that continued to develop over the course of the pilot period. The intervention greatly benefited from a process of continuous QI within the hospital, which worked to address program challenges as they arose.

By qualitatively studying the implementation of a pilot program using the PARIHS framework, we arrived at a better understanding of facilitators and barriers to new transitional care efforts. Lessons learned and recommendations for similar programs include the following:

1. **Consider expanding eligible program participants.** When determining program eligibility, consider focusing more on social factors and not solely on clinical profiles. By focusing on a patient's ability to be coached, more appropriate types of patients could be recruited and benefited from the program. Another consideration would be to extend the program to those with chronic diseases, who are prone to readmissions, regardless of age. Furthermore, transitional care interventions might consider including family members and caregivers as participants of the program.
2. **Identify key stakeholders and gain buy-in early on.** Several interviewees noted that by gaining hospital leadership and physicians' support in particular, hospital staff would be more aware of the new program, responsive, and helpful in the enrollment process. Furthermore, continued relationship building with hospital staff, including nurses, social workers, and case managers, is key to program enrollment and linking patients to appropriate follow-up care.
3. **Improve communication and coordination.** Efforts to improve communication to facilitate the program should be applied at all levels: across the organization, between program leadership and frontline staff, between hospital staff and frontline staff, and among frontline staff. This includes increased and more frequent feedback (both written and oral) to hospital staff and physicians and more sophisticated and open data-sharing mechanisms.
4. **Consider staffing changes to refine the enrollment process.** Suggestions to improve enrollment included hiring an additional staff member whose primary purpose is to enroll patients. This so-called intake coordinator would focus exclusively on working with hospital staff to identify and recruit patients

for the program, allowing other intervention staff members to concentrate on coaching and case management. Financial analyses describing program expenses and potential savings to stakeholders, whether to the hospital, payers, or patient community, would be beneficial to justify the need for such staffing increases.

As researchers examining the implementation process from an objective standpoint, limitations to this study included difficulties in monitoring rapid program improvements or daily decisions being made about decisions occurring “on the ground,” which may not have appeared in the interview data. Another limitation is the small number of interviews on which this analysis is based. However, our interviews were exhaustive, including all program staff involved with direct patient care and others involved in program implementation at that time. In addition to a small sample size, concerns about anonymity might have affected participant responses, though interviewees were assured of confidentiality and additional accommodations were made to preserve data privacy following the interviews. Finally, as the program was funded initially through multiple sources (2 nonprofit foundations and a private donor), there are not only questions of what programmatic changes can feasibly

be made going forward on the basis of early experiences but also longer-term questions of continued funding and program sustainability.

SUMMARY

Transitional care programs from a hospital to home or long-term care setting are gaining popularity, especially in light of health care changes and increasing emphasis on patient-centered care. The intervention highlighted in this article, based on the well-accepted CTI and other community-based models, demonstrates potential for improving patient-activated care among high-risk older adults with varied medical needs. However, even the most effective intervention must be implemented successfully to achieve desired outcomes among those it seeks to benefit. Thus, contextual factors surrounding the intervention, evidence support as well as challenges to expected outcomes, and a variety of facilitation techniques must be taken into account when implementing transitional care programs. Accordingly, this research outlines practical considerations for those contemplating a similar model in their own health care setting, with the complementary goals of reducing preventable hospital readmissions and improving patients’ quality of life at home and in the community.

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