

A “Simple” Evidence-Based Intervention to Improve Care Transitions for Frail Patients with Complex Health Conditions: Why Didn’t It Work as Expected?

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Abstract

The transition from hospital to home is a vulnerable period for patients with complex conditions, who are often frail, at risk for adverse events and unable to navigate a system of poorly coordinated care in the post-discharge period. Care transition interventions are seen as effective care coordinating mechanisms for reducing avoidable adverse events associated with the transition of the patient from the hospital to the home.

A study was undertaken to evaluate the effectiveness of a care transition intervention involving a hand-off between a hospital-based care transitions nurse and a community-based rapid response nurse. Two focus groups were held, one involving rapid response nurses and the other involving care transition nurses. Individual interviews were conducted with the managers ($n = 2$) and executives ($n = 2$) to identify the factors that facilitated or were barriers to its implementation.

Using thematic content analysis, it was found that the effectiveness of transitional coordination efforts was thwarted by ineffective communication, which affected the quality of the underlying relationships between the two teams. Other barriers to achieving the desired outcomes included the following: issues of role clarity, role awareness and acceptance, the adequacy and reinforcement of coordinating mechanisms, the effectiveness of the information exchange protocols and the absence of shared measures of accountability.

Clinical integration initiatives have fewer human resource and financial implementation barriers compared with organizational integration efforts but are complex undertakings requiring clear alignment between organizations, shared accountability measures, effective communication processes and relationships of trust and respect between interprofessional teams.

Background

Patients are being discharged more quickly, allowing less time for providers to prepare patients and their families for discharge (Anthony and Hudson-Barr 2004; Bowles et al. 2002; Chapin et al. 2014; McMurray et al. 2007). Patients are more medically complex (Chapin et al. 2014) and are sometimes discharged from hospital before they have completely recovered (Bull and Jervis 1997; Coleman 2003; Laugaland et al. 2012).

Achieving seamless transitions and coordination of post-discharge care is challenging, given the high degree of system fragmentation (MacAdam 2008). Medical specialization and organizational separation between community, hospitals and physician services create a degree of system complexity that increases the probability of failed communication and discontinuity of care between providers (Chapin et al. 2014; Geary and Schumacher 2012). The information transition from one provider to another is often incomplete as the patient moves from one care setting to another (Chapin et al. 2014; Coleman 2003; Rooney and Arbaje 2012).

Achieving seamless transitions between care settings is viewed as crucial to high-quality care, particularly for the frail older person; adverse events, at the point of transition, occur with regular frequency (Boling 2009; Forster et al. 2003, 2004; Tsilimingras and Bates 2008). These include the following: medication errors; communication breakdowns between providers; incomplete and inaccurate transfer of information; inadequate patient and caregiver education; complex and poorly understood discharge instructions; errors in follow-up of diagnostic tests; infections, falls and complications related to procedures; and limited access to services (Darwin and Parrish 2008; Forster et al. 2004; Moore et al. 2003; Soares et al. 2012).

In recent years, significant interest has developed around the implementation of care transition interventions, as care coordinating mechanisms, to reduce avoidable readmissions and other adverse events in the post-discharge period.

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Study Overview

A mixed-methods study was undertaken at Health Sciences North, an academic health sciences centre located in the City of Greater Sudbury in northeastern Ontario (Canada) and the Northeast Community Care Access Centre, an organization responsible for providing community-based home care. Appropriate ethics approvals were obtained.

The first phase of the study involved a randomized controlled trial (RCT) that evaluated the efficacy of a care transitions nurse and a rapid response nurse, home follow-up intervention and referral to hospital-based chronic disease management clinics. The aim was to lengthen the time to first readmission or emergency department visit and reduce total post-discharge inpatient and emergency department use. The results of this RCT demonstrated no statistically significant differences between the intervention and control groups.

The second phase of the study involved a qualitative analysis using focus groups involving rapid response and care transitions nurses and individual interviews with managers ($n = 2$) and executives ($n = 2$) to identify why the intervention did not achieve the outcomes expected. Although the number of respondents for this analysis was small, the results were deemed to be very informative about the intervention. The results of the second phase of the study are highlighted in this paper.

Results

Five key themes emerged from the focus groups and interviews: (1) clarity about the intended purpose; (2) poor alignment of organizational mandates and care processes; (3) patient complexity, selection process and criteria; (4) relationships

and communication challenges between the teams; and (5) inadequate awareness of outcomes.

Clarity about the intended purpose

The teams did have a common understanding of the intervention’s purpose, which was to improve patient transitions, reduce readmissions, improve information transfer and enhance patient satisfaction. This common perspective is reflected in the comments of one of the community-based rapid response nurses, “... the goals for sure are patient-oriented and the purpose is to work with each other and them (the hospital care transitions nurses) to get the inside info for us and to pass that on so we can continue in the community.”

Poor alignment of organizational mandates and care processes

Achieving agreement on work processes was difficult due to organizational mandates that were described by one participant as “not necessarily being the same.” This lack of alignment was reinforced by a sense of competition and issues of trust as a result of different views of work ownership, “... because they do not trust either CCAC or the services that are already out in the community.” The community-based rapid response nurses raised concerns that the hospital’s involvement in post-discharge aftercare would lead to duplication of effort, “... if the hospital starts getting into the community services and duplicates what is already there ...” and reinforce the hospital’s dominance as the location for care delivery within the community, “keep the hospital in the hospital you know because if people are in and out of the hospital, where is going to be the place to go? It is going to be Emerg.”

Role clarity, role awareness and the degree of acceptance of the roles were consistently identified as a challenge for both the care transitions nurses and rapid response nurses within each of their respective organizations. The work of transitions was not well integrated into the daily workflows of the respective organizations. Further, the relevance of the work was not well understood by staff members not directly involved in the work, as articulated by a care transitions nurse, “... there is ... staff out there who just see what we do as frivolous.” While formal mechanisms of accountability, policies, processes and joint committees for coordinating work between the teams were established, the study revealed a lack of reinforcement of these formal mechanisms, making the task of coordination and integration of the interdependent work processes more difficult.

The focus groups revealed the work process complexities of managing patient transitions between the two organizations, “... having two separate organizations doing part of the process is doable but it makes it more complex.” There were challenges with referral coordination between the two teams and other community service providers, leading to poor service

coordination and service duplication. Once home, patients experienced interactions with multiple providers through home visits or telephone calls that left them feeling overwhelmed, as one nurse reported, “... they see so many people, they are getting so many phone calls that they are overwhelmed.”

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Patient complexity, selection process and criteria

The screening tools and protocols used to identify patients selected were described as effective in identifying the intended patient population but labour-intensive. The patient population served was described as highly frail and vulnerable with complex medical conditions and uncertain outcomes. Nurses identified challenges with patient motivation and health literacy, with most concluding that the patient population was simply too frail to benefit from the intervention as designed, “a lot of people are going to come continuously back, but that is going to happen no matter what, because sometimes there is nothing we can do for them; they are sick and they have to come back ...”

The perspective of nurses delivering care was that the transitional intervention was patient-centred, that it facilitated the establishment of a strong therapeutic relationship through the comprehensive care planning, medication reconciliation, reassurance, prioritization of care activities and the strengthening of the patient’s self-management capabilities through education and coaching.

Relationship and communication challenges between the teams

Communication between the care transitions nurses and rapid response nurses was described as neither open nor effective, “I do not know why open communication is such a problem.” Several mechanisms were experimented with, including weekly meetings, web-portals and teleconferences but were considered inconvenient, untimely and inconsistent. The absence of regular and effective communication left members of the teams feeling demeaned, uninformed and frustrated and resulted in the deterioration of an already strained working relationship, as reflected in a comment from the focus groups: “... the lack of communication, you are not from the same team.”

At the provider level, the participants clearly reflected the lack of mutual recognition and respect for each other’s role, reinforcing a sense of competition rather than collaboration, as reflected in the comments from one of the nurses in the focus group, “there is a lot of that going on and I just feel that we are always working against each other, instead of with each other.” But there was a clear desire for change and a sharing of ideas on how things could improve, “... okay I am open, let’s hear it, let’s work together.”

The transfer of patient information is a specific aspect of communication that was analyzed. The demands of the patient information transfer were significant due to the clinical complexity and the uncertainty of the patient’s condition. The mechanisms that facilitated the information transfer included multidisciplinary team interactions, daily bullet rounds, a team assistant for the community care access centre and faxes.

The qualitative interviews revealed that the care transitions nurses went through considerable effort to provide patients, rapid response nurses, primary care providers and chronic disease management clinics with an extensive amount of information, “on discharge, we fax packages to each area that is going to be part of the patient’s out-of-hospital care ... everyone is made aware.” But the relevance of the information provided was not clear and was described as flowing only one way. The mechanisms used to flow information were identified as cumbersome, resulting in information that was not always available in a timely manner.

Inadequate awareness of outcomes

The focus groups revealed the absence of well-defined feedback mechanisms to enable the evaluation of the patient’s post-discharge plan of care. The absence of adequate feedback did not allow for mutual problem solving, as reflected in the comment from a care transitions nurse, “We would know if it was beneficial to them. What the rapid response nurse did when they were there ... that would be nice to know.” Finally, there were few monitoring processes or outcome measures at any level, inhibiting the establishment of effective mechanisms of accountability between the two organizations.

Discussion

This care transition intervention differed from others such as Naylor’s (1999) Care Transitions Model, Coleman’s Care Transition Program (2003) and others (Manderson et al. 2012), which used liaison or navigator roles to serve a system-spanning function, linking and coordinating care by facilitating the flow of information between care settings (Dohan and Schrag 2005). Accomplishing similar outcomes in the transition from the hospital to home, between two organizations, while identified by the participants in this study as achievable, was difficult in the absence of similar views on mandate, shared accountability and alignment between providers for the outcomes. The idea of creating alignment through measurement accountability has been suggested by others as a way to force the forging of partnerships between providers to create a greater degree of mutual accountability to each other, the patient and the system (Burke et al. 2013).

The task of transitions in this intervention operated in a sequentially interdependent manner (Nadler and Tushman 1988). The lack of feedback mechanisms posed a barrier to the

effective exchange of patient information, the appropriateness of referrals, the relevance and timeliness of the information provided and the outcomes of care (Gittell and Weiss 2004). The intervention design would have benefited from a better-established mechanism of two-way information sharing with a focus on solving care coordination problems (Havens et al. 2010).

A fundamental issue in the design of the intervention was that the home follow-up period was limited to 30 days. Given the frailty of the population, the 30-day follow-up period was probably insufficient. Transitional interventions that have longer periods of follow-up have demonstrated longer-term success in changing health status and health utilization behaviours of the population they serve (Counsell et al. 2007; Enderlin et al. 2013; Manderson et al. 2012; Naylor et al. 2004). The current intervention may have been more suitable for a less frail patient population.

Limitations

In addition to several of the challenges identified above, a limitation of this study is the small sample size of the focus groups and the number of participant interviews. Additional time may have allowed the teams to improve their work processes and address their challenges related to both communication and relationship. At the time of writing this paper, these approaches are in fact happening. Finally, understanding how inpatient and emergency services were being used and not just the amount would have provided additional understanding of patient need and the effectiveness of the transitional intervention.

Policy implications

Care transitions arrangements are a form of integration focused on coordinating care at the patient or clinical level where existing organizational arrangements are retained, but explicit structures, protocols, individuals and other resources are applied to managing the care needs of specific patient populations, such as the elderly or patients with chronic diseases (MacAdam 2008). The main advantage of care transitional arrangements as an integration activity is that significant improvements in patient care can be achieved with fewer financial and human resource barriers to implementation, as compared with organizational or system integration (Curry and Ham 2010; McDonald et al. 2007; Peikes et al. 2009).

Care transitions initiatives have the patient as the object of integration and differ in focus from integration initiatives focusing on organizations as the objects of integration. There is an implicit assumption that organization-based integration activities achieve better care coordination and patient outcomes (Singer et al. 2010). These authors suggest that study results are mixed and limited in terms of the effectiveness of integration models involving organizations and health systems. Fleury (2006) argues that integration efforts that are more focused

around targeted, patient-specific groups such as the elderly or those with specific diagnosis are more effective.

Although nominally patient focused, the current study demonstrates the complexities of integrating care activities across multiple organizations and identifies potential enablers to achieve more effective integration through care coordination activities such as care transitions initiatives. These enablers are discussed below and summarized in Table 1.

TABLE 1.
Enablers of effective care transitional interventions

Enablers	Enabler Impact
Clarity and alignment of purpose	A key enabler to the alignment of work processes, role clarity and relationships of trust and respect
Shared measures of accountability	Shared process and outcomes measures reinforce accountability and transparency of commitments
Open, direct communication	Open, direct communication between providers is foundational to relationships of trust and respect
Relationships of trust and respect	A prerequisite for effective coordination and integration of care between providers and organizations
Efficient information transfer	Efficient, direct transfer of relevant patient information between providers to support continuity and coordination of care
Appropriate patient selection	Patient risk stratification and distinct transitional pathways for low-, medium- and high-risk patients
Ongoing feedback	Patient-level feedback from patients and providers to identify opportunities for improvement
Investment effect	Integrating transitional work processes within existing organizational arrangements takes time

Clear alignment of the purpose and shared measures of accountability are key enablers. Accountability measures should focus on processes of care delivery and the resulting outcomes to the patient and system. As well, the establishment of relationships of trust and respect amongst care providers supported by effective mechanisms of communication, clearly defined roles and effective mechanisms for the transfer of patient information are crucial for effective care transitions, coordination and integration initiatives involving multiple organizations (Gittell 2002; Gittell and Weiss 2004).

The transitional intervention needs to be targeted at the right patient population. Through the application of relatively simple patient stratification tools, it is possible to categorize patients from low, to medium and high intensity, based on the complexity and uncertainty of patient outcomes. In the current study, the patients may have been too frail to have benefitted from the pathway as designed. In the transition of patients from the hospital to home, different pathways should exist. These might include pathways for patients with moderate care needs, such as those with chronic diseases amenable to

improved management. Alternative pathways should exist for high-risk, frail patients for whom the impact of multimorbidity, complexity and frailty is the prevailing concern and where it is more appropriate to focus on establishing “goals of care” that incorporate advance care planning and potentially a more palliative care pathway.

Finally, there is an investment effect; that is, achieving the intended results of the intervention takes time and that time needs to be invested in establishing the relationships at all organizational levels (Manderson et al. 2012). This study provides further evidence of this requirement. Modifications to any intervention need to occur along the way: an intervention should not be seen as a rigid approach. The idea is to optimize the effectiveness with improvements to the intervention over time.

Conclusion

Effective patient transitions between organizations are achievable but are complex undertakings and weakened by a lack of clear alignment, common accountability, clarity in roles, communication and information transfer mechanisms and relationships of mutual respect. These are barriers amenable to improvement. Consequently, it is recommended that implementation of patient care transitions across organizations should be designed with a clear focus on the patients’ best interests and require care providers to develop, implement and evaluate clear and effective mutually respectful communications, which include regular, meaningful feedback to all involved individuals, including the patients, as well as the participating organizations. **HQ**

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