Transitional care planning: A pilot study to explore patient, hospital, and primary care perspectives

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Abstract

The care plan aims to align key stakeholders via the exchange of meaningful, timely, and actionable patient care information during transitions of care. This exploratory study used a qualitative approach that includes field observations and semi-structured interviews to further understand the barriers and current process of care planning. A thematic analysis identified clinician strategies in addition to barriers at system, care-team, and patient levels. Specific themes included limited time and resources to establish value-based care, inconsistent/vague role definitions across settings, disconnections in care team communication, inconsistent care planning definitions and goals, patients' lack of knowledge of care planning, and social behavioral determinants that prevent patients from engaging in their care planning. Further research is necessary to gain a deeper understanding of these barriers and clinician strategies to support a clearer definition of the care planning process.

INTRODUCTION

Poor coordination between care settings (e.g., hospitals, primary care) often result in excess hospital utilization and poor outcomes for patients costing the United States over two hundred and forty billion dollars a year (Naylor, 2011). These adverse effects are related to the gaps in communication and reliability of information across settings during transitions of care (Dykes, 2013). The Affordable Care Act of 2010 established a variety of programs to support transitional care including care planning (Naylor, 2011). A care plan "is a holistic, dynamic and integrated plan that documents important disease prevention, treatment goals and plans of care on a longitudinal scale" (Dykes, 2013). The vision for care planning places the patient at the center of care with the inclusion of the patient's social and behavioral needs in their care plans.

Studies have shown that addressing social determinants in healthcare settings may reduce readmissions and improve population health outcomes by supporting high-value care (Newman, 2015). For example, in the Vermont Medical Home model, supplementing NCQA qualified primary care with nurse coordinators and other expert staff significantly reduced hospitalization rates and lengths of stay (Jones, 2016). A similar study found a 34.7% reduction in hospitalization rates after the "integration of social support and social services in clinical care" settings (Murtaugh, 2016). Another study conducted by Herrin (2014) showed a reduction in all-cause 30-day readmission by 8% ($p< .001$) with the addition of a combination of nursing care delivered in home and primary care follow-up. With the growing awareness of the impact of social and behavioral determinants of health on readmission, primary care naturally emerges as a hub for coordination and integration of health and social/behavioral services to vulnerable patients (Pinto, 2016).

Historically, nursing staff have been most involved in care planning. However, the Affordable Care Act of 2010 has moved care planning towards an interdisciplinary process requiring collaboration among care team members, which include care coordinators, care managers, physicians, nursing staff and other professionals trained in the creation of care plans. A study using surveys and interviews in hospitals, emergency rooms, acute care facilities and home health services identified various barriers to care planning, including "lack of clarity related to nomenclature, regulatory requirements, content, communication and messaging standards, care plan governance, and care team ownership and participation" (Dykes, 2013). However, the gap remains in our understanding of the process of care planning, especially across a care team in different settings, and the details included in these plans.

The long-term goal of this project is to apply a human factors approach in redesigning the care planning processes and support tools to achieve more structured and effective patient centered communication across healthcare settings. As a first step, the current study aimed to explore multiple perspectives in transitional care planning, emphasizing the context of care coordination as larger than the individual work activities of a single care coordinator. This study took a qualitative approach that includes field observations and semi-structured interviews at settings with diverse staffing and practice patterns to understand the challenges and opportunities in care planning.

METHOD

Settings

The setting for this pilot study was healthcare facilities in the City of Buffalo, New York, focusing on primary care practices that currently provide care coordination services to vulnerable populations. The selected sites included Elmwood Health Center (EHC), which serves a diverse patient population including a large percentage of persons with developmental disabilities and of Medicaid patients. The Erie County Medical Center Family Health Center (ECMC primary care) and Hospital (ECMC hospital) is a designated Level 1 Adult Trauma Center with 550 beds. The EHC and the ECMC primary care are both certified in Level 3 Patient-Centered Medical Home™ by the National Commission on Quality Assurance (NCQA). EHC has both a care coordinator and a care manager. The registered nurse care manager focused on patients with chronic disease, while the care coordinator had a background in psychology and worked with patients with social factors affecting their recovery.

Participants

Clinicians. The study recruited thirteen clinicians from EHC, ECMC hospital and ECMC primary care. The criteria for the recruitment of these providers included an expertise in transitional care, and thus we interviewed a care coordinator (n=1), discharge planners (n= 2), care managers (n=3), social worker (n=1), physicians (n=2), and other nursing staff in primary care offices (n=4). Clinicians who did not actively participate in transitional care were excluded from the study. In total, we interviewed four clinical staff from EHC, four staff from ECMC primary care and five inpatient clinicians at ECMC hospital.

Patients. Following the protocol approved by the Institutional Review Board at the University at Buffalo, we asked the care managers at EHC and ECMC primary care to assist in recruiting patients who could be contacted for a follow up interview. Inclusion criteria were adults with a pre-existing chronic illness who had been discharged from the acute hospital to the community in the past few months. Patients who could not describe their experience with healthcare providers after discharge due to a cognitive impairment or major language barrier, those who did not reside in the city of Buffalo, those who could not be reached to set up an appointment, and those who were unable to give informed consent were excluded from this study.

In total, the researchers interviewed three patients shortly after their hospital admission and discharge. Patient 1 was a white male, over the age of fifty; he was discharged from the hospital with a catheter after an infection sent him to the ER. Patient 2, an adult male, was hospitalized because of complications related to his drinking habits. Patient 3 was an adult male in his sixties; he was discharged from the hospital after complications with his blood pressure.

Data collection

Study personnel conducted field observations and interviews with care team members at the two clinical sites, and interviewed patients at their home or work. A primary interviewer—a graduate student in a human factors program and an author on this paper—was present at all interviews. A secondary interviewer with a nursing background was present only at the patient interviews except for the initial interview at EHC. There was no formal interview training for this pilot study beyond discussions among the authors.

Interviews were guided by a broad set of questions that focus on how information is or is not shared between care settings. For example, clinicians were asked how they defined care plans, what their goals of care planning were and if they could describe the typical process they use to develop a care plan. Conversations with patients focused on their knowledge and experiences with the care planning process. For example, some questions asked were, do you know what a care plan is, and if so, what is it, how were you involved in your care plan during your discharge process, did they [clinical staff] ask what your health goals were, what contact did you have with your primary care clinic after your recent discharge from the hospital.

No video or audio recordings were made in this study. Interviews and observations were recorded in field notes during the interviews and organized/synthesized by the interviewers immediately after each interview. Analyses were iterated within the research team for several rounds to identify themes and patterns.

RESULTS

The themes that emerged from this study fall under four categories (frequency of each theme, in percentages, was calculated by the total comments related to each theme):

1) barriers at the system and infrastructure level (38%);
2) barriers in care team functioning (21%);
3) barriers at patient level (26%); and
4) current practices and strategies (15%)

The themes are summarized below with brief interpretive comments.

Barriers at the system and infrastructure level

Limitations of care planning tools was present in 17% of the responses. The tools mentioned in interviews as well as observed in visits to the clinical facilities included the electronic medical record (EMR), care plan templates, excel, note books, and the Mercy Adult Stratification Tool. Several issues were identified regarding the current use of the EMR systems. There is no sharing of care plans enabled between different EMR systems. As an interviewed physician pointed out, there are hundreds of different EMR systems out there and they all have different designs. These systems are unable to communicate with each other, which limit collaboration on all fronts of healthcare. Furthermore, the EMR systems in use by each practice only allow one author to create, edit and save changes to a care plan. This undermines the collaborative nature of care planning to condense the multitude of plan(s) of care into a single, patient-centered document.

During our data collection, at no point was there collaboration between care team members observed in the creation of a universal care plan. Finally, clinicians pointed out that the design of the care planning template in the existing system does not allow in-depth patient information to be entered. A care coordinator described that, “the [resulting] care plans [are] not person-centered and dry.” In some cases, the interviewed clinicians were not even aware that such EMR tools existed.

Limited time and resources to establish value-based care was present in 9% of the responses. Value-based care is the current healthcare delivery model where providers are paid based on their patient's health outcomes. The ability to transfer information across settings is critical to positive patient health outcomes. The care planning process would establish this transfer of information between facilities. Unfortunately, it appears technology and resources to create this information transfer have been limited. From our interviews and observations, the limited time and resources available to establish care planning within the facilities was apparent, and the clinicians interviewed were often distressed about the impact of value-based care model on the quality of care planning. One nurse commented on how long it took her (one year) "to wrap [her] head around the idea of value-based service" regarding their role/goals in this new delivery model.

Another major barrier to transfer of information is the limited time for care planning due to time spent "reconciling medications" and "coordinating patients to get lab work and scripts complete prior to follow up visit." Such tasks can be time consuming and take away time to formulate a personalized longitudinal care plan. An EHC care coordinator described herself "feeling overwhelmed with patient load; [sometimes having] five hundred patients that need care planning but one care manager can only handle one hundred and fifty at most." All those interviewed described insurance coverage to be their biggest challenge and takes up much of the time that would otherwise be dedicated to care planning.

Inconsistent or vague role definitions across settings was present in 10% of the responses. Care planning occurs at multiple settings within the healthcare system, including hospitals, primary care, and peripheral settings such as pharmacy and health homes. During the transition from hospital to primary care, the care coordinator or care manager at the primary care becomes the center of this transition of care. We observed that the care manager's role often falls on the primary care nurse who carries out the post-discharge follow-up interviews. However, there should be a distinction between the role of a discharge planner and that of a care planner, as the documents produced in these processes serve different purposes. A discharge plan is a one-time document summarizing the patient's hospital visit and post discharge plans whereas a care plan is a longitudinal plan containing multiple plan(s) of care. Both care managers from EHC and ECMC primary care described, "…difficulty determining the difference between discharge plans and care plans."

This confusion causes dissonance in the importance of their job role, as work can feel repetitive. The majority of participants interviewed had extensive experience with discharge planning. Due to limited care plan training these individuals developed discharge plans instead of care plans. A number of care managers and care coordinators admitted that they were unclear about the role or purpose of their own position in regards to care planning.

Barriers in care team functioning

The care team is "a clinical team for a given patient consisting of the health professionals, physicians, advanced practice registered nurses, physician assistants, clinical pharmacists, and other healthcare professionals – with the training and skills needed to provide high-quality, coordinated care specific to individual patients" (Doherty, 2013). At the team level, barriers to effective care planning across multiple care settings generally relate to communication and role definitions.

Disconnection in the communication among care team members was present in 11% of the responses. While the care team members are expected to collaborate to develop a comprehensive care plan for a patient, in reality the care team members communicated little to none, even within practices.

Care managers and care coordinators in primary care settings also expressed frustration with "the disengagement of hospitals after discharge of patients." The care coordinator at primary care commented, "Hospital staff will set up an appointment with the primary care and the patient will still be in the hospital when the appointment is scheduled for" and "primary care will call the hospital for information on the patients discharge and they [hospital staff] will not know any details." The disconnection between the hospital and primary care may be the reason the care plans are created in isolation.

Inconsistent definitions/goals of care planning among care team was present in 12% of the responses. Potentially as a result of the inconsistent or vague role definitions (a barrier identified at the system level), several care managers perceive a knowledge gap about care planning that leads to inconsistent goals among the care team members. They report that there is "…minimal understanding by other professionals [Doctors, nursing staff] of the care manager's job and how it affects their patients." The lack of understanding about what a care plan is and the role of a care manager makes it difficult for the care manager to collaborate with other healthcare professionals who are part of the same care team. For example, none of the physicians, at either facility, review the care plans that are created, even though care plans should play an important role in the patient's long-term health.

The study also found differing goals between settings. Goals described by the ECMC hospital staff included "keeping patients from being readmitted, limited [i.e., brief] admission to patients who must be admitted, and patients moving efficiently through the ER." The goals described by the EHC and ECMC primary care clinicians was "to identify people who need care management and nailing down the details, to resolve problems such as how they will get their medication, air conditioning and help them get to their appointments". However, they all agreed on the need "to improve the patient's overall health and to get patients involved in their health."

One particularly interesting perspective regarding the move from fee-for-service to value-based service was how this change could worsen the coordination of care between settings, rather than improve it. Providers now get reimbursed based on performance-based measures. One nurse interviewed was concerned that this has the potential to threaten the patient-centered goal of care planning by rushing the process.

Barriers at Patient Level

Patients' lack of knowledge about care plans was present in 9% of the responses. Care plans have been envisioned with the patient at the center of care. As such, patients should play a critical role in their care planning. None of the patients interviewed were able to explain what a care plan is; one incorrectly suggested that a care plan is "when someone tries to take care of someone who cannot take care of themselves." However, these patients were able to identify related activities during their discharge. One patient stated:

> "They [the hospital] asked me how I was planning on progressing, moving forward, and my intentions and plans [for a] follow up appointment, and part of what I was in for was alcoholism, so they asked about AA, getting a sponsor, and going to meetings. They did ask me about goals and plans."

Patient goals are sometimes related to their immediate health outcomes. One patient reported that their goal, as stated to the discharge nurse prior to discharge from the hospital, was: "I'd like to get rid of my catheter." Some goals are health-related but had not been addressed by the provider team. One patient emphasized the need to gain weight as a goal that was not discussed with their care manager: "I actually lost 20lbs and a lot of it was muscle mass." Participants also acknowledged that they received health related advice, such as following a low sodium diet to manage blood pressure. However, conflicting advice also creeped in during the multiple interview process: "One of them told me I wasn't supposed to take a bath but then another one told me, well why not? Because I like taking baths!" Overall, patients seemed to recognize that care plans were created for them, but they did not have a clear understanding of their purpose, or how the care plan would be monitored or managed by the care team.

Social behavioral factors that prevent patients from engaging in their care plans was present in 17% of the responses. Some clinicians found the patients' attitudes to be challenging ("patient's indifference to their own health; patients not cooperating") in the care planning process. One care coordinator stated that "it is important to get patients to buy into the process of care planning and this can take time."

Related to one's socioeconomic background, transportation for patients to their next visit appears to be a critical question. All clinicians reported checking if a patient had transportation needs prior to leaving the hospital or scheduling an appointment. Each patient interviewed acknowledged being asked multiple times if they had transportation to get to their follow up appointment. However, there are many other social or behavioral factors, beyond transportation needs, that often remain an issue. Functional ability, the ability to perform basic tasks, was described by the care coordinator at the primary care as "a greater impact to social systems" these have been ignored in the past. For example, a patient's ability to climb stairs might affect their ability to get out of the house to purchase food, which could affect control of their diabetes. The work to resolve these social behavioral barriers may take anywhere from "a few hours" to "a full day" according to one care coordinator.

It is interesting to note that the success stories of transitional care planning shared by the interviewed care coordinators centered on the social behavioral needs. In one case, the patient identified their housing needs and the care team helped the patient submit multiple subsidized housing applications. In another case, the patient could not afford their medications, so the care manager helped them switch to medication that was better covered by their insurance and ultimately improved medication adherence. From these examples, it is clear that the care team cannot address health-related goals without addressing other social or economic needs. These cases also illustrate the scope of care planning beyond the medical activities that clinicians are trained for.

Current Practices/Strategies

References to *Current practices/strategies* were present in 15% of our responses. Each clinician described their own process in which they would develop a care plan. The care manager and care coordinator would utilize the EMR template as a guide but developed the care plans with outside tools including "track[ing] everything on a spreadsheet outside of their EMR". The care manager at ECMC primary care would create her own care plan without structured documentation for each patient's care plan. She was unaware of an available template for care planning at her facility.

The care manager at EHC has developed her own strategies when developing a care plan with a patient. The approach to communication was described as "motivational interviewing": "never tell the patient they are doing something wrong. Always begin each meeting with 'I know you are doing everything you are supposed to do' or 'I know you are trying your best'." When it comes to working with outside benefit systems (food stamps and other government funded aid), the care coordinator described her strategy as "playing the game". For example, benefits systems can overlap and if a patient is signed up for one it could disqualify them from another. The care coordinator had to "play the game" of the benefits system by selecting the correct assortment of benefits for a patient without disqualifying them from others.

DISCUSSION

While the study had various limitations regarding the number of people interviewed and the number of clinical settings included, we were able to identify a number of barriers to care planning at the system, care team and patient levels as well as current practices/strategies. Many of these barriers are consistent with past findings in related work.

Not surprisingly, limited time and resources for care planning is a recurring theme, especially under the current model of value-based care. The limited resources along with a vague definition of the care manager's role lead to many hours of a care manager's day spent on conducting follow up calls, reconciling medication and navigating through the EMR and HIE tools. This is consistent with the findings from a previous study that observed the role of primary care nursing and care coordination facilities (Anderson, 2012). Anderson's study showed that primary care nurses spent the majority of their time on medication administration, phone calls, charting and paperwork, leaving them with only 15% of their time for care coordination. Although our study focused on a more defined care coordinator's role, the care planning clinicians interviewed also described non-care planning tasks taking up excessive amounts of their time.

A related issue identified is the lack of knowledge, especially in those who do not have an explicit care planning role, about the role of care plans in a patient's overall health. This finding may explain previous research that found the work of care manager leans towards reactive instead of planned and organized (Anderson, 2012). When it comes to the care-planning task itself, the tools—those adopted by the practices we observed—are limited in their ability to support cross-setting communication required by the care plan. Such limitations are not new; one of the problems identified—the inability to share care plans across EMR systems due to incompatible designs—were already discussed in Dykes (2013), which found substantial variations in the types and formats of care plans, making it difficult to communicate across settings (Dykes, 2013).

While the care plan is envisioned to be patient-centered, reflecting patient values and preferences, the current practice does not leave much room for patient involvement. Patients we interviewed, although limited in number, did not know much about the purpose or functions of their care plan, which may prevent them from effectively engaging in such plans. Furthermore, social behavioral factors, which are integral to care planning and patient well-being overall, are not currently supported by the EMR tools, nor can be entered as part of the EMR care plan templates. A standardized design of tools that will support patient-centric care plans remains a challenge in healthcare human factors.

CONCLUSION

This exploratory study aimed to elucidate the complex knowledge transfer and decision making during transitional care planning to help inform future design requirements for health information exchange and clinical decision support tools that would facilitate shared understanding of the patient experience across care settings, anticipate patient needs and minimize care coordinators' workload. To obtain multiple perspectives on care planning, including patient involvement in the care planning process, we observed and interviewed a number of clinical staff from both acute and primary care settings, as well as several patients who were recently discharged from the hospital.

Findings from this study identified barriers at the system level (e.g., infrastructure, inconsistent role definitions across settings, lack of support tools), care team level (e.g., disconnection in communication, vaguely defined jobs, limited resources), and at the patient level (lack of understanding about the care planning process and social-behavioral determinants). While these barriers identified provide opportunities for the redesigning of process and design of decision support tools, it is also important to recognize the further need to define clearly the tasks of care planning personnel, and ensure that any tools designed should support their adoption of the new practices.

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