Patients’ discharge experiences: Returning home after open-heart surgery

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Abstract

Purpose: This study explored patients’ narratives of technology in heart surgery and recovery.

Methods: A narrative inquiry was conducted with a sample of 16 individuals. Interviews were completed 2 to 4 days after transfer from cardiovascular intensive care, and 4 to 6 weeks after discharge. Participants completed journals between these 2 time periods.

Results: Discharge and the return home were highlighted as key transitions. These transitions were driven by a technological script that included teachings and texts provided upon discharge. Complicating participants’ narratives were their own personal dramas and self-characterizations of vulnerability, as they struggled to incorporate this script into the particularities of their daily lives.

Conclusion: Comprehensive conceptualizations of technology that involve the associated logics and pathways of recovery provide deep insights into patients’ stories of recovery from heart surgery. It is salient that discharge programs consider the ways that technology enters into patients’ narratives, and also consider dialogical approaches to communication, education, and supportive interventions that are offered at multiple intervals and continue in the home.


Accelerating “technologization” is the norm in healthcare systems of developed countries, and the area of heart surgery is no exception. Technology has extended to automation, computerization, vital-function monitoring, and information and communication systems.\textsuperscript{1,2} Technologization has a significant impact not only on patterns of practice, but also on patients’ experiences. Patients’ experiential accounts of technology are largely overlooked, despite an abundance of research evidence concerning mortality, morbidity, and economics.\textsuperscript{3-5} This is a significant omission, because technology in heart surgery is an...
systems of care.19 Thus, in heart surgery, technology
nections with logics, human activities, policies, and
hence a departure point in this study involved
engage in a comprehensive understanding of tech-
and intravenous pumps. To conceptualize technology
and pulmonary artery catheters, therapeutic devices as cardiac monitors, ventilators,
hospital recovery period, patients are discharged to the
familiar routines and objects at home, and into the
experience for patients. They are displaced from their
home.

As participants recounted their stories of technology in
heart surgery and recovery, their discharge and return
home were critical transitions that were common in all
narratives. Here, we highlight these critical transitions
for a better understanding of the place of technology in
their stories, and to enhance patients’ preparations to
return home.

**Methods**

In this study, we used narrative inquiry as the meth-
ology. Narrative inquiry involves a focus on stories.20,21 We drew on the concept of “narrative
employment.”22-24 This concept directs attention
to active processes of constructing a plot line. It
involves depicting interrelationships among charac-
ters, events, interactions, and outcomes.22-24 Focus on
employment was key to this study, because it drew
attention to how meaning was constructed in story-
telling and to an analysis of the point of a story.21,24
Temporality and contextuality,25,26 were integral
concepts, because narratives may be re-emplotted
differently as stories are retold over time and story-
tellers reposition themselves according to changed
circumstances.27 For example, as individuals progress
in the course of their illness and recovery, their
circumstances and vantage points shift. Hence,
changes may occur in the types of stories told, the ways
they are recounted, and the reasons participants tell
them. Because stories are told from particular
vantages, attending to contextuality and temporality
facilitates an understanding of why particular stories
are being told.

We obtained ethics approval from the clinic and the
hospital where recruitment occurred. The setting for
recruitment was a preoperative cardiac clinic. A
convenience sample of 16 individuals undergoing
coronary artery bypass graft (CABG) and/or valve repair
or replacement was purposefully recruited. As in other
narrative approaches, a small sample facilitated access
to, and detailed analysis of, rich stories about illness
experiences.22 The registered nurse in the clinic
referred eligible and interested individuals to J.L. for
study details. After providing detailed information and
setting a time for discussion, we obtained informed
consent from interested individuals.

Data-collection methods included interviews
and journals. Interviews were narrative-based,
which involved a dialogical engagement with partic-
ipants.28-30 A semistructured interview guide was
used, so that certain aspects of technology were
addressed with each participant. Although we used
a semistructured guide, it was critical not to restrict
interviews to a priori topics exclusively.31 Rather,
narrative inquiries involve a dialogical approach in which participants direct the flow of interviews, and storytelling emerges on their own terms. Therefore, the theoretical conceptualization of technology was a departure point, but questions emerged that were based on participants’ stories. Journals were used as an elicitation device that directed the flow of the second interview. Participants received journals after their first interview, and they were encouraged to document their experiences in whatever format they felt most articulate. Journals elicit rich data because individuals can chart their experiences as they are occurring, or as close to the time as possible. In narrative inquiries, journals are particularly useful because they enhance understandings of context and the temporal flow of stories.

Individuals first participated in interviews while in the hospital, 2 to 4 days after transfer from cardiovascular intensive care. These interviews lasted approximately 20 minutes, and were purposefully kept short. Participants then received journals, to write about their experiences of technology and recovery for the first 3 to 4 weeks after discharge. At 4 to 6 weeks after discharge, individuals participated in a second interview in their homes. These interviews were considerably longer, with a mean length of 70 minutes. Questions evolved from broad and open-ended to specific and tailored to participants. Questions included, but were not limited to, the following: Tell me about the technology? How did it make you feel? What were the significant aspects of your recovery?

Data analysis followed a narrative framework, which involved dwelling upon and thinking with stories. It was important to avoid the immediate tendency to analyze. Thus, the process began by listening to the story and hearing what participants said, and feeling what was happening as they described events. A key analytic tool was narrative mapping, which resulted in highlighting important components of discharge and going home. This analytic tool involved composing visual maps of interviews that featured narrative flow and sequences of events. The research team engaged in reflexive and iterative discussions of data and narrative maps. These discussions involved comparing the unfolding of narratives and the key events in participants’ stories.

**RESULTS**

Discharge and going home were noteworthy components of participants’ stories. Vulnerability at discharge and upon returning home were enfolded into 4 main plot developments that were contingent on personal context and were reflected in varying degrees and ways. These developments frame the Results: (1), “Thrown to the wolves,” (2), “Double-edged sword,” (3), “I don’t know what is normal now,” and (4) “Walk that fine line.” Variations of these plot developments are present in the literature concerning transitions from hospital to home after heart surgery. However, this research explicates how technology appears in these narrative accounts. The components of stories were driven by a technological script that included teachings and texts provided on discharge. Narratives reflected self-characterizations of vulnerability, as participants struggled to incorporate this script into the particularities of their daily lives.

Pseudonyms are used to protect participants’ identities. This sample includes 8 women and 8 men, with ages ranging from 59 to 85 years. All individuals lived with a significant other, except for 2 women. One woman was a widow and 1 was divorced, but each had a family member or friend temporarily staying with them to facilitate their recovery. Participants’ surgical procedures included CABG (n = 6), mitral or aortic valve repair/replacement (n = 6), and combined CABG and valve repair/replacement (n = 4).

**Thrown to the Wolves**

Embedded in participants’ stories of the transition from hospital to home were characterizations of self as vulnerable because of the sudden responsibility for self-care and insufficient follow-up. For example, Wayne indicated a need for hospitals to modify “release procedures so you’re not just thrown to the wolves when you’re released, there’s somebody who is going to keep track of you.” The metaphorical expression “thrown to the wolves” suggests a perception of being placed in a situation wherein he felt abandoned to harm, and no longer protected as he was in the hospital. In Wayne’s story, once he was outside the hospital, his blood work and medication regimen were not monitored competently. He positioned himself as a central actor as he engaged in self-surveillance and self-advocacy. Fortunately, Wayne had gained sufficient information about therapeutic measures to interpret his laboratory values in response to medication:

I didn’t think that he [the family doctor] was technologically advanced… They’re prescribing stuff in the hospital, throwing it to the family doctor to monitor. He admitted to me that he didn’t know what some of these were for. I went for a blood test, the international normalized ratio [INR] was 2.4. He tells me to up the dose [Coumadin]… Eventually got it up to 4.0, and 3 was supposed to be the top. He finally tells me to cut back. I started this coughing and felt lousy. So I called the surgeon… He sent me to the hospital and did an x-ray and said, “You’ve got fluid in your lungs,” that’s because the INR was so high. So he sticks a needle in my back and takes out a liter of what looks like blood… Had I not taken the initiative and called the surgeon, who knows where I’d be now?
Wayne acknowledged that his self-advocacy ultimately prevented dire consequences. Not only was he responsible for self-care, but he was vulnerable to harm with regard to follow-up care that he deemed incompetent. Furthermore, incorporating the technological script into his daily life involved a need to actively draw connections between his increasing INR and his bodily symptoms.

Hospital scripts that outline discharge routines involve logics and practices of care that are technologically driven by standardized protocols and checklists. Consequently, they sometimes fail to address contextual variables that are specific to patients’ needs. Raz’s recollection of discharge suggested that he was expected to assume immediate responsibility for self-care. His narrative pointed to an abrupt transition, fueled by institutional pressures to promote rapid patient turnover. However, taking an active role contravened Raz’s characterization of himself as passive. He described being unready to understand and initiate self-care practices and activity restrictions:

They shouldn’t be telling me this. I can’t take on all that. They should be telling that to somebody, what I use the term “sober”... Somebody should be there, instead of telling me. It was a rush to get rid of me. They should have a little more ample time to explain. As I say, you on so much drugs, you really can’t remember. As a matter of fact, they took me out of the ward to a TV room. I waited for my family. Anything could have happened to me and nobody was there. I guess the rush was just to get the room empty to place somebody else in.

Narratives pointed to the importance of engaging patients in dialogue about going home and formally including family or primary caregivers. Procedures often appeared to be associated with a rapid dispensation of information that left no time to absorb or discuss the material with healthcare professionals.

**Double-edged Sword**

Stories of going home were imbued with tensions and dualistic meanings that became enfolded in plotlines. These stories involved a severance from the perceived safety of close observation offered in the hospital. Voicing what all participants felt to a certain extent, Kristi described leaving the hospital as “a two-edged sword,” suggesting that discharge can simultaneously be associated with favorable and unfavorable consequences:

It was a two-edged sword. I felt good about coming home. I didn’t want to go back to the hospital room, even though that’s where my comfort zone was. It’s the comfort of everybody monitoring you. [Then] you come home and you’re going, “There’s nobody going to be monitoring, what about if something happens?”

By acknowledging the familiarity of her home and recognizing strong biographical associations, Kristi was able to reestablish comfort: “There’s no place like home. When you get home, it’s almost like [sigh]... I thought that when in my home, it was the things that I enjoyed. You know what it was? It was the smell... Your own smell.” The intimate and emotive responses of smell clearly prompted memories and feelings of comfort in one’s own home. This organic familiarity and comfort of one’s own home is in stark contradiction to the unfamiliar technological environments of hospitals. Returning home was synonymous with comfort and survival, and participants were able to consider an optimistic biographical course. However, death became a backstage character that was present in stories, but not explicitly mentioned by all: “You leave home on the morning of surgery and you don’t know whether you’re coming back. I thank God to be home. Happy that I’m alive... [but] you are not going home like you were before” (as stated by Ishani). Despite familiar home surroundings that provided comfort, exposure to hospital technology and surveillance resulted in psychological needs to be monitored because one was now vulnerable to harm, as stated by Ishani:

Being in your own home is nice, your own bed, family, but I was worried. I guess with technology, they knew everything was fine, so they let you go. Still in the back of your mind you worry. Is it healed? Will anything go wrong? Because in the hospital, the nurses are there. You push a button and they're there. But here, there is no button to push!

Participants’ stories also highlighted the human element linked with technology. Leaving the hospital involved the loss of proximity to the human contact offered by healthcare providers. Although returning home was a significant milestone in recovery, the vulnerability that accompanied discharge was prominent in stories.

Although participants indicated a sense of vulnerability and fear about the possibility of worst-case scenarios, the familiarity of home spaces helped alleviate these feelings. Bob described his home as a “different safe,” which revolved around being “cared for and loved” by his family:

I didn’t realize how much coming home would mean. I felt awfully safe that first night, sitting here, my wife was there, my son was here, and we watched TV. You felt that you felt safe in the hospital but it’s a different safe at home... One thing was that if something really goes wrong, if the whole thing [chest] bursts open, and I thought, “That’s stupid, so don’t go there.”

The emotional and familial safety of home enabled him to lessen his focus on the catastrophic fears that arose from the loss of professional monitoring that accompanied hospital discharge. Although unfamiliar
bodily sensations created fear for Greta, the familiarity of home tended to alleviate these feelings:

As soon as I got in, I undressed and laid down. It was just too much. The next day was much better. I guess I relaxed because I noticed it went fine. You didn't have to be afraid. You're in a familiar surrounding again... You realize you can do it [function independently].

The comforting sensory experiences of being home in one's own bed, pleasant smells, familiar surroundings, and family often helped participants suppress concerns about worst-case scenarios related to physical sensations. Dualistic meanings that were enfolded in plot lines lessened during varying timeframes for participants and with the progress of their recovery.

I Don't Know What is Normal Now

It appeared that the technologically driven scripts provided at discharge did not sufficiently address the unfamiliar bodily sensations that participants experienced. Fear and anxiety stemmed from these sensations, because participants did not always know whether they were normal components of recovery. Velinka explained that she did not know if her breathing and pain levels were normal, and that having her family nearby provided reassurance: "I scared to be alone. I say to my family, 'Please, stay here' because I'm so nervous... I don't know what is normal now. This [her chest] I don't know. I always imagine there is something wrong, pain. Muscle, and I think it's the bone." Although healthcare providers may discuss bodily responses associated with recovery while participants are in hospital, the disturbing embodied nature of these sensations potentially confines individuals to that particular moment. Hence, previous education and counseling provided in the hospital may shift backstage in patients' stories as they become caught up in their current and disturbing bodily sensations. Dianne expressed uncertainty about invisible, physical sensations. She imagined parts of her body that she had never thought of before, and became hypervigilant to visceral processes that had never inserted themselves into her thoughts until she was exposed to scientific discourses about the heart: "They [heart and arteries] click. I'm not sure what it is. It's quite a click. I was wondering if they were going to keep clicking? ... I've got imagination. The arteries. You roll over, and think, 'Am I getting enough air? Maybe I'm squeezing them too much?" Fear was enfolded into many participants' stories because scripts concerning pathways of recovery did not detail important components such as bodily sensations. Kristi wrote in her journal that she felt "fine." However, she was acting from a body that was no longer familiar:

When I am in bed and everything is quiet, I hear my heart beating loudly, it keeps me awake for a long time, it's something I have not gotten used to. I will be seeing the surgeon, I will ask if this is normal. I am having a very tired day, I slept most of the day. I felt like my heart racing so fast, it was scaring me, then it would slow down but I could still hear it in my ears beating.

It became apparent that, to alleviate concerns, participants required further details and continual reassurance that these sensations were normal for the healing process. In Margaret's words,

"I'm hoping this [touches chest] is healed... All I want to know is, is what I'm feeling part of the normal getting over this process? Because it doesn't say anything about that in the [discharge] book, "cause I've gone back to that book a couple of times."

Even the printed materials given at discharge omitted mention of some issues that were of real importance to patients. This speaks to the importance of multidimensional discharge education, delivered at multiple intervals that may continue in the home.

The bodies in which participants had to act were no longer familiar. Their stories included the various means that, in the absence of technology and hospital surveillance, participants used to figure out what was normal, to mitigate feelings of vulnerability. Participants enacted active roles in the course of their recovery by engaging in self-surveillance practices. Kristi indicated that her bodily sensations resulted in vulnerability, but she also relied on them as a form of self-surveillance:

My heart would race if I go up the stairs. If I don’t hear it, I’m going, “I’m still breathing, obviously my heart is still going,” so that’s scary. It does bump loud. I had a hard time falling asleep because you can hear it and feel it... I do check my pulse and I know when I listen to my heart if I’m just sitting back, in a quiet room, my heart will go back to a regular pace. I just stay there until I feel reassured that it’s not skipping or running.

Self-surveillance involved participants attuning themselves to the particularities of their bodies and responding accordingly. In Linda's words, "You have to listen to your body, if your body says, 'I'm tired,' I better have a rest." For some participants, the body became an intimate source of knowledge. Joseph indicated the importance of communicating information about his body to his healthcare providers: "Your body can tell you, and you got to communicate with the doctor or nurse, but he's not in your body, he doesn't know how you're feeling, so you got to have communication with them." Engaging in self-surveillance allowed participants to participate actively in recovery and ameliorate the anxiety associated with unfamiliar bodily sensations and insufficient knowledge.
Walk that Fine Line

Participants’ stories were shaped by information provided about pathways of recovery. This information outlined the expected trajectories and activities in which patients should or should not engage. These pathways acted as a driving force of story plotlines. Vulnerability became enfolded in stories as participants described struggling with insufficient details and pathways that were difficult to discern, because guidelines were not tailored and expected timelines were not clear. Hence, stories emerged about ways in which participants improvised. Wayne incorporated the metaphorical expression of “trying to walk that fine line,” indicating that pathways were not clear-cut and involved interpretation on the part of the patient. He explained his difficulties in translating general guidelines into the specificities of his daily life, and he was concerned about the health implications of error:

You’re not supposed to pick up more than 5 pounds. You get to the point where you’re afraid to pick anything up... It’s a point of figuring out how much I can do. It’s a fine line. You’re trying to walk that fine line... I assumed, if I can drive, I’m not likely to split open. Therefore, I can start to lift and do more normal things... If there was some schedule that looked after you, you’d have a better idea of when you could go back to work, start to lift, get back to normal. You’re kind of left with these things, don’t lift anything heavy, for how long?

Descriptions of the discharge materials and instructions provided in the hospital involved rudimentary guidelines that were not completely time-sensitive or specific to context. Participants relied on the written material provided at discharge. However, these texts were often too general, and participants expressed uncertainty because of the lack of detail. Margaret stated:

It [the discharge book] mentions breathing 10 times every hour, I know I didn’t do that... I wasn’t sure how often and how long I was to do that. Am I to do that when I walk? ... I don’t know whether I’m supposed to be doing a fast walk or slow walk or does it matter, as long as I walk?

Often participants relied on their own creativity to figure out how to conform to the expected pathways. Margaret described rearranging her kitchen, to adapt the information to her own situation and daily activities: “I know I’m not supposed to lift anything too heavy, but it’s reaching to get things out of the cupboards... So we just moved it all on the dining room table.” These participants expressed ways in which they personalized pathways of recovery as they attempted to adhere to guidelines, but also engaged in activities that were part of the home context.

The implementation of and engagement with these pathways of recovery in the home context involved nuanced gender differences. Both men and women described the importance of these pathways. Furthermore, participants described the critical importance of having a partner, friend, or family member at home to provide assistance. However, male participants often characterized their wives as taking active responsibility in coordinating the implementation of these pathways and surveying their husbands’ activities. For example, Bob stated, “All the literature I got from the hospital, she devoured it. I would say, ‘Why can’t I lift it?’ ‘Actually, it’s 10 pounds what you’re lifting.’ I said, ‘No, it’s only 5 pounds.’ She was very careful to manage everything.” Male participants’ narratives clearly demonstrated that their wives had become imbued with a set of logics that were technologically informed, based on hospital exposure to discharge teachings and texts. Although female participants characterized their partners as helpful and supportive, there were no descriptions of coordination and close monitoring. This is particularly relevant when considering the ways in which practitioners dispense discharge information, and how gender enters into these technological practices of care in the home.

Part of “walking a fine line” involved ambiguity about the status and progress of recovery. Participants assigned meaning to their progress of recovery, based on the disappearance of bodily sensations associated with heart surgery, and regaining functional abilities that let them participate in normal activities of daily life. Jack indicated that he was progressing, but described a sense of uncertainty about his recovery:

I’m feeling good, hopefully in the new year I’ll be able to get out and do what I normally do, maybe not 100% but like 80% better. This chest thing takes a long time... I’m kind of static right now because I felt really great when I got out of hospital. I don’t feel much different now.

Often, participants felt challenged when they reached a plateau in recovery where improvement was slow or absent. According to Margaret, “I was getting frustrated because nothing seemed to be progressing. It was as if, ‘Is this ever going to get better? How long is it going to take?’ Everybody expects you to say, ‘I’m coming along just fine.’ At that point I didn’t feel like I was.” By comparing herself with a friend who had undergone heart surgery, Margaret continued to describe uncertainty about whether she was measuring up to the expected trajectory, and how to translate the pathways into her daily life:

Within a week, he was out doing all kinds of things. It hasn’t been that way for me... Apparently they say 4 to 6 weeks. Here it is 8 weeks, so why am I different? Nobody has mentioned that, and I don’t recall seeing it in the [discharge] booklet... The part that I found frustrating was because I was upstairs...
and I was told I should only go up the steps twice a day. As slow as that takes, how do I get up to the bathroom in time if I’m down here? So I was upstairs for close to 2 weeks... It was almost as if I was going in circles.

Scripts that outlined pathways did not take into consideration varying home contexts and courses of recovery. Inabilities to conform to the expected pathways of recovery resulted in a sense of personal failure and shifts in identity. When participants were unable to conform to the pathways and were uncertain about returning to an active lifestyle, they often described psychological issues. These issues were related to shifts in identity in which body capacities were altered. Underlying Greta’s narrative were ways in which her identity shifted from being an active to a “helpless” person:

You’re just helpless. As soon as you do something, you realize you don’t have the energy. You have to sit down... Get depressed. You feel like crying... It hits you because you can’t do anything. I’m not used to that. I never was one who wants to be sick or just lay down.

Consequently, individuals felt stunted because of ambiguities about their future. Participants described pathways of recovery as key to successful recovery, and yet interpreted them as “walking a fine line.” It is important to consider the ways in which these pathways are structured, to take into account patients’ local and personal context at home space and in daily life, so that these pathways are not merely technologically driven.

**DISCUSSION**

In this narrative inquiry, we explored patients’ experiences of technology during heart surgery and recovery. By using a broad and inclusive definition of technology, including the associated logics and practices of care, we could more thoroughly elicit and analyze narrative accounts. This theoretical construction offered an opening into storytelling that unfolded according to participants’ particular experiences, as opposed to limiting their stories. As a result, the use of this theoretical construction as a departure point shed light on the ways in which technology entered into and structured participants’ stories of heart surgery and recovery.

Technology was an organizing feature of pathways of recovery, including discharge information and expected trajectories that shaped participants’ stories. Upon discharge, individuals’ stories were shaped by 2 scripts that they struggled to integrate. The first was the technologically driven script, outlining pathways of recovery that were created and provided in hospital. Both healthcare practices and patients’ courses of recovery are guided by critical pathways that describe expected trajectories and inform treatment and care. The second script involved their own personal dramas, where they attempted to adhere to pathways in the context of home and daily life. Participants’ stories highlighted problems associated with integrating these 2 scripts and managing the accompanying vulnerability that sometimes led to frustration, depression, and exacerbations of uncertainty. Addressing this problem is crucial, because these feelings can inhibit adherence to appropriate pathways of recovery, and interfere with psychosocial functioning.

Pathways of recovery were critically important to regain bodily capacities and reestablish daily activities in safe ways. However, pathways and timelines were unclear and lacked important details, leaving participants to take an active role, and interpret and personalize these pathways in their own context. Stories reflected how participants were abruptly positioned as active players in their recovery, and this was problematic because they did not always feel competent as active players. Participants often positioned themselves as vulnerable when adherence to pathways was impossible or difficult, or when they were uncertain of particular details.

As also reported elsewhere, efforts to follow prescribed pathways were further complicated because participants now positioned themselves as vulnerable. Individuals departed the technological environments of hospitals that offered security and returned to less technologized home spaces, where they were expected to be self-sufficient. Clearly, discharge meant that they had survived and were returning to the organic familiarity of their own homes, including the smells and domestic objects that provided comfort. However, participants were contending with personal dramas in these less technologized home spaces, such as new sensations and acting from bodies that were no longer familiar. They struggled to determine whether sensations were normal components of recovery, or indicated more dire consequences. Because of symptom distress and a lack of information, individuals often do not or are unable to adhere to discharge guidelines. Also noted elsewhere, these struggles indicate the need for further communication and support about normal courses of recovery and bodily sensations, to ease distress and facilitate recovery.

Linked with a self-characterization of vulnerability was the idea that mortality became a backstage player that did not disappear just because the patient returned home alive. Part of entering the hospital for surgery involved placing oneself in a position where death was a possibility. As previous research indicated, confronting mortality is necessary during the course of heart surgery. Positioning the self as vulnerable to harm or even the most catastrophic risk (i.e., death) lessened but was sustained at home, as participants
struggled with unfamiliar bodily sensations and unclear pathways of recovery. For some, this potential risk led to problems with psychosocial functioning, and limited their recovery activities.

Technologically driven practices of care associated with discharge and hospital-bed allocation can put patients’ health teaching and counseling needs at risk. Although education and support are acknowledged as vital aspects of discharge, they are frequently overshadowed by institutional pressures such as large patient assignments, a focus on monitoring, and achieving prompt turnover. Although technological vigilance is important, it has the potential to render the patient invisible and shift communication and education interventions from dialogical to monological approaches.44 These contextual problems in technological environments, in addition to reduced hospital recovery periods,45 have practice, education, and policy implications for healthcare professionals.

Recommendations

As other researchers noted,7,45-49 discharge and follow-up need to be reconfigured. Further exploration is required about the exchange of information and the dynamics between patients and healthcare professionals. Of particular importance would be an understanding of the shaping forces of discharge practices, including policy and environmental factors. As noted in other research,39 patients described a lack of dialogue about discharge while in the hospital. The delivery of discharge information left little time for patients to absorb the material and respond. Key to addressing these problems, and requiring further exploration, are 4 key recommendations.

First, consideration must be invested in how to restructure the written material provided at discharge. This information should be more comprehensive, because individuals consistently rely on discharge pamphlets as an important resource. Secondly, communication, education, and supportive interventions should not only be tailored to patients, but should be offered over a period of time.50 These interventions may need to be enhanced or initiated with patients preoperatively, and extended into the home. Follow-up interventions at home, such as web-based and telephone and peer support, have been initiated in some hospital settings,3,51-53 but require further exploratory work. Third, dialogical engagement about discharge should be enhanced, so that patients have time to reflect and discuss ways to particularize pathways into the home context. It is critical to include families in discharge planning,54 because this additional support can help individuals succeed at adhering to pathways of recovery (because patients sometimes felt unable to absorb discharge information while in the hospital). As reported elsewhere,55-57 spouses were previously identified as an important source of support. The ways in which families, particularly husbands and wives, are involved in discharge will need to take into account gender and discussions on how partners can best facilitate adherence to pathways of recovery. Policy changes may be required, to create spaces where healthcare professionals, including nurses, can better engage in humanistic and dialogical practices with patients in technologized environments. This change would also involve education for healthcare professionals about the critical significance of communication and supportive interventions with patients.

Limitations and Strengths

We recruited from 1 site, and participants’ stories may reflect this particular hospital and its associated policies and practices of care. However, detailed contextual and biographical information was provided for the reader to better determine transferability to other settings. No difficulties occurred in terms of participant recruitment. Of the individuals approached about the study, 3 declined to speak with the researcher, 2 indicated they were not interested in participating after speaking with the researcher, and 1 participant withdrew from the study after surgery. We were unable to identify any discernible differences between these individuals and the sample, because information was not collected from nonparticipants about their demographics and reasons for nonparticipation or withdrawal.

Temporality and “contextuality” were key to this narrative inquiry,25,58 and were addressed via repeated interviews that occurred both in the hospital and at home, and by the use of journals. The iterative process between research phases facilitated methodological congruency and constant refocusing, based on what was emerging in the analysis.59 Five of 16 participants reported varying reasons for not completing journals (e.g., “just not up to it” or “didn’t feel like it”), and it was important not to exclude these individuals. This study was restricted to 6 to 8 weeks after discharge from the hospital. In future studies, a consideration of temporal changes in narrative emplotment patterns over a period of 1 year after discharge would be important. In addition, future research should consider other manifestations of technology in the discharge process, such as healthcare professionals’ accounts and document analyses of various protocols. Although participants’ stories were contingent on their local context, focusing on narrative emplotment patterns facilitated an analysis that highlighted storytelling structures and components,60 and these elements can contribute toward understanding essential components of discharge.

Conclusions

Over a decade ago, Radley61 reported that heart surgery becomes part of patients’ identity, i.e., “a mark on their
biography” (p. 135). Uniquely, our study illuminated ways in which individuals were marked by technology as they were discharged home. Close involvement with technology in the hospital and the technologically driven scripts prompted a recasting of identity. Individuals characterized themselves as vulnerable, and believed that they required close surveillance. Understanding this technological marking can facilitate better ways to organize healthcare systems, and better ways for practitioners to help patients recover within the personal dramas of their lives and homes.

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