Transforming Care at the Bedside: Managers' and Health Care Providers' Perceptions of Their Change Capacities

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abstract

Background: The Transforming Care at the Bedside (TCAB) project engages frontline health care providers as the leaders of change and improvement efforts in their work environment. This study explored how health care providers and managers from three TCAB units in a university-affiliated health care center perceived the development of their change capacities following their involvement in this program.

Method: This descriptive, qualitative study involved focus groups and individual interviews.

Results: Participants learned to work as a team and to expand their outlook. They had access to processes and tools to learn new skills. New relationships also developed among the various players, and they shared new roles, which enabled them to translate the desired changes into action and make the results visible.

Conclusion: The study showed the TCAB program helps develop health care providers' and managers' change capacities.

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As the nursing shortage escalates, improving the efficiency of the nurse's workflow is becoming increasingly important. According to Runy (2008), the best way to address this issue is to ask nurses about the efficiency challenges they confront in their work environment, create work environments that facilitate communication and teamwork, and minimize wasteful work. The pace of rising care expenditures is not sustainable and demands an improvement in the network's performance and the reestablishment of balance in public finances (Government of Quebec, 2010). Within this context, strategies must be identified for optimizing effective practices and eliminating waste to reduce costs within a reasonable period of time (Grossmeier, Terry, Cipriotti, & Burtaine, 2010; McGhan et al., 2009).

One such strategy developed by the Institute of Healthcare Improvement (2014) is the Transforming Care at the Bedside (TCAB) program. TCAB engages frontline staff in leading process improvement efforts aimed at enhancing value-added work processes, patient outcomes, and work environments (Hassmiller & Bolton, 2009). Through TCAB, nurses develop core skills that enable them to change the work they perform (Thompson, 2009). Despite evidence supporting the

value added by the TCAB program, little evidence exists about managers' and health care providers' perceptions regarding the development of their change capacities.

BACKGROUND

Initiated in 2003, the TCAB program was developed through a partnership between the Robert Wood Johnson Foundation and the Institute for Healthcare Improvement (2014). The TCAB program was created to promote changes originating at the point of care as well as to engage frontline staff in developing innovations and changes directly aimed at improving work processes and patient care. The framework underlining the TCAB project is largely based on Rogers' theory of innovation (1962, 2003), which suggests that the diffusion of an innovation is influenced by four elements: the innovation itself, the communication channels, the time required for the innovation–decision process, and the social system. Also according to Rogers' theory of innovation, the adoption process occurs through five stages: first exposure to innovation (knowledge), increasing interest in the innovation (persuasion), acceptance or rejection of the innovation (decision), implementation and test of the innovation, and a final decision (confirmation). Thus, the TCAB project engages frontline staff in the development and spreading of innovations that will provide improvement to work processes and patient care. Since 2003, more than 81 hospitals throughout the United States have been involved in the TCAB program, and the program has spread to other countries as well (Needleman & Hassmiller, 2009), including Canada.

The TCAB program has five foundational elements where change is targeted (Institute of Healthcare Improvement, 2014):

- Safe and reliable care.
- Vitality and teamwork.
- Patient-centered care.
- Value-added work processes.
- Transformational leadership.

The aim of the TCAB program is to encourage frontline staff and hospital leaders to initiate changes that will lead to improvements in these five domains. The TCAB program has been found to facilitate positive results for a variety of reasons. It creates a work culture that promotes improved performance and value-added activities (Bolton & Aronow, 2009). It further encourages frontline staff to use their knowledge and experience as well as to work as teams to identify, implement, and test changes that will likely lead to improvements. Reviews of hospitals and nursing units participating in the TCAB program showed that a large number of innovations were suggested, adopted, and spread, resulting in patient care improvements and high vitality and teamwork among staff (Needleman et al., 2009; Pearson et al., 2009).

The TCAB program represents a powerful mechanism for improving the human capital of a health care organization (Dearmon et al., 2013). The TCAB program encourages frontline staff to adopt new roles and new responsibilities, allowing them to become the drivers of change in their units. The hope is that by encouraging nurses and managers to identify, implement, and test changes that could improve their work practices and environments, they will intrinsically accept and eventually spread these changes. As suggested by Mintzberg, Ahlstrand, and Lampel (1998), changes must occur in an organization's culture, its modes of functioning, and long-term competencies. These are the elements that should be improved first to initiate and sustain change. Thus, to facilitate changes, an organization should move from a culture of "change management" to a culture of "capacities for change" (Rondeau, 2008). Rondeau (2008) described changes in organizations as a learning or evolution process, which suggests that to develop change capacities, all members of an organization must have access to the competencies, tools, and resources that make changes possible. It is important to explore change capacities as they contribute to an organization's ability to successfully implement and sustain change. Research in this area can generate new evidence contributing to an understanding of how best to transform work processes (Dearmon et al., 2013).

The aim of this study was to describe managers' and health care providers' perceptions of the development of their change capacities with the TCAB program in a university-affiliated health care organization.

METHOD
Setting

In 2012, a Quebec university-affiliated health care organization implemented the TCAB program with patients as partners in the redesign work following the published guidelines (Rutherford, Moen, & Taylor, 2009). The units involved in this study included a pediatric medicine unit, an adult acute respiratory care unit, and an adult neurology unit.

To engage patients in care redesign, several patient representatives joined the core TCAB health professionals team on each unit (O'Connor, Ritchie, Drouin, & Covell, 2012). The goal was to facilitate the redesign of inpatient care delivery processes with teams that encouraged patients and families to become deeply involved with health professionals in creating the necessary im-

provements and in truly meeting the needs of patients and families. Including patient representatives in the TCAB teams offered health care providers and managers a different point of view to help guide decision making. Patient representatives were recruited from the hospital's patient committees, whose members had previously been patients or had family members who were patients. The primary roles of the patient representatives were to:

- Work with pilot units to improve care via rapid cycle improvement and other processes by 1) participating in discussions with staff about ways to improve care related to admission, discharge, interprofessional communication, rounding processes, and information provided to patients and families, and 2) participating in workshops and forums and then sharing results with staff.
- Help explain the TCAB program to current inpatients and ask for their input in identifying changes needed or to seek their feedback on specific interventions and changes being introduced by the teams.
- Recruit patient participation in surveys or patient interviews.

The teams thus were composed of the managers and the health care providers of the different units as well as the patient representatives. They started the TCAB program in September 2012 and completed the program in June 2013. They were accompanied by facilitators and had protected release time (i.e., time release during work hours) for staff. During this time, the teams met weekly and participated in four structured learning modules based on the TCAB initiative developed by the Robert Wood Johnson Foundation and the Institute of Healthcare Improvement (2014). These modules were:

- Plan-Do-Study Act module, which taught the teams to apply rapid cycles of improvement to test, measure, adjust, and maintain new processes while engaging stakeholders.
- 5S module, which taught the teams how to improve the physical work environment using 5S (sort, set, shine, standardize, and sustain) LEAN methods.
- Patient Experience of Care module, which taught the teams how to implement a specific bundle of interventions (e.g., therapeutic questions, whiteboards, and comfort rounds).
- Improving Admission and Discharge Processes module, which involved creating process maps to identify waste and opportunities for standardization and improvement.

More than 70 changes were implemented. The percentage of direct patient care activities performed by nurses increased from 52.1% to 55.3% (2012-2013), and the percentage of waste activities (e.g., hunting for supplies and equipment) was reduced from 3.7% to 3% (2012-2013).

Design

This descriptive, qualitative study relied on focus groups and individual interviews for data collection. Participants included managers and health care providers from three TCAB units in a university-affiliated health care organization in Quebec, Canada.

Procedure

Approval was obtained from the ethics review board of the participating organization. A purposive sampling approach was used to recruit managers and health care providers among the TCAB teams. One member of the research team presented the study to TCAB teams from each unit, and a focus group date was proposed per unit. Individual interviews were scheduled with managers. Before the interviews, the study was explained to each participant orally by a research team member, and participants gave their informed written consent. To protect confidentiality, participants were identified by a code. The interviews lasted 45 minutes and were conducted at the participants' organization by a member of the research team.

Data Collection

A total of three focus groups and three individual interviews were conducted in May 2013, 9 months after the TCAB work began in September 2012. These interviews enabled the researchers to gather information on the perceptions of health care providers concerning the development of their change leadership capacities. An interview guide served as the data collection tool for the interviews and focus groups. A sociodemographic profile was developed at the start of each interview and focus group. The main questions of the interview guide were based on the model of the capacity for change (Rondeau, 2008).

Data Analysis

Because this was an exploratory qualitative study, the analyses were guided primarily by the interview questions, rather than a specific theoretical paradigm (Polit & Beck, 2012). Interviews were audiorecorded and transcribed. The data generated by the interviews and focus groups were analyzed using NVivo, a program designed to facilitate analysis of unstructured data, according to the method proposed by Miles and Huberman (1994) and Miles, Huberman, and Saldana (2013).

Data analysis consisted of three concurrent streams of activities: condensing the data (coding of individual interview data to identify major themes and categories), presenting the data (data display of themes from all interviews), and elaborating and verifying the data. Mem-

TABLE 1

PARTICIPANT SOCIODEMOGRAPHICS

Characteristic	*n*
Gender	
Female	16 (84.2%)
Male	3 (15.8%)
Mean age, y (*SD*)	47.2 (11.1)
Education	
High school	2 (10.5%)
College (pre-university)	1 (5.3%)
Certificate	3 (15.8%)
Bachelor	11 (57.9%)
Master	2 (10.5%)
Job title	
Nurse	7 (36.8%)
Nurse manager	3 (15.8%)
Patient attendant	3 (15.8%)
Assistant nurse manager	1 (5.3%)
Unit coordinator	2 (10.5%)
Patient representative	2 (10.5%)
Not identified	1 (5.3%)

TABLE 2

PARTICIPANTS' PERCEPTIONS OF THEIR CHANGE CAPACITIES

Themes
Perceptions of a team approach to lead change
Get the bigger picture
Structured process to lead change
Learning skills
Engaging team members in change
Sharing leadership for change
Impact of changes

ber checking was conducted during the individual interviews with the participants to establish data credibility (Polit & Beck, 2012).

Two researchers independently coded the transcripts from a set of data to ensure a consensus and to reduce the possibility of a biased interpretation. The analyzed data were discussed with the research team to establish a consensus that the analysis was representative of the phenomenon studied (Polit & Beck, 2012). An audit trail was used to keep a record of data collection details and decision making during the study. Demographic information was collected to allow for an external assessment of the generalizability of the findings to another setting (Polit & Beck, 2012).

RESULTS

The sample included 16 women (84.2%) and 3 men (15.8%), for a total of 19 participants (**Table 1**). A total of seven themes emerged from the interviews (**Table 2**). The seven themes were:

- Perceptions of a team approach to lead change.
- Get the bigger picture.
- Structured process to lead change.
- Learning skills.
- Engaging team members in change.
- Sharing leadership for change.
- Impact of changes.

Perceptions of a Team Approach to Lead Change

For participants, TCAB was an inclusive and participatory program. It provided an opportunity to reconsider ways of thinking and to shift from compartmentalized (individual) work methods to teamwork. Change management no longer occurred in an isolated, unilateral manner, but rather together as a group. One nurse manager stated:

> We always forget who's in, you know. We think of the immediate how it affects me, but we forget how…we're not in silos. We're actually working as a team, and we're reinforcing our team…more and more we think as a group.

Get the Bigger Picture

Strategies for involving other members of the unit, members of the multidisciplinary team, patients, families, and patient representatives relied on communication and the flow of information. Paying attention to the needs, opinions, and suggestions of others encouraged their interest in participating in the change. According to the TCAB teams, patients and their families said they appreciated being involved and informed. TCAB informed and raised the teams' awareness to consider the views of patients and families, rather than taking their opinions for granted. Staff members' comments were:

> You know, with the head nurse, we don't have the time to really chat…maybe to better understand her outlook, her way of…that the department functions because sometimes we have preconceived ideas like, yes, there is such and such a problem, or why is this or that the way it is. I think that a lot of discussion happens…that's it, we

share our opinions...Like it or not, it makes us grow, it opens things up...It expands our outlook. Even in terms of our colleagues, I think it helps me...I think that communication among colleagues has improved. It's one benefit of the TCAB...I have a stronger sense that I'm part of the team.

It's nice to hear also from the other side, like our patient rep [representatives], their point of view...They should be involved in it, their ideas too, because we didn't know what they think about. We haven't been [a] patient; we always have been health care workers. So it's nice to hear from them, really, their opinion and outside thoughts on what we're going to do about [it].

Structured Process to Lead Change

Participants believed the TCAB program enabled managers and teams to implement changes in a more structured, thoughtful, analyzed, measured, planned, and less instinctive manner. This resulted in increased effectiveness and satisfaction for all concerned. For example, the TCAB strategies that were implemented improved the work environment by making it better organized and more effective, which saved time and provided a more pleasant place to work and receive care. One nurse manager stated:

Before I would say, "Oh, I have a gut feeling of this needs to be changed."...But now, if you want people to understand why you're doing the change, you have to prove to them, you have to give them stats [statistics] of what's happening, OK? And in black and white stats [statistics] saying, "This is what's happening. This is why we're trying to improve it, and how at the end it's going to help you."...Before, I found I was a bit more random, though at the end you may come to the same conclusion and the same results, but now, there's a process...

Learning Skills

For nurse managers and teams, TCAB enabled health care teams to take the lead in making changes. The tools and processes learned were able to be transferred to other projects, if not to personal lives. The TCAB team was gaining such leadership that it was encouraging other members of the unit to introduce initiatives and even to take the lead in making changes. One nurse manager stated:

For example, if we try to implement some change, the TCAB team has become very efficient on identifying what has to be changed, what is the process, how we're going to measure, all that. They're very good.

A staff member noted:

I think it's different in the sense that now we don't jump ahead and try to do the change. We actually analyze be-

fore. Is it feasible? We get feedback from the staff, how they would feel about a change...There will be a process in place now, whereas before we [would] just do it, and the change may or may not succeed...There's more structure now.

Engaging Team Members in Change

According to nurse managers and health care professionals, other members of the unit accepted changes more readily when asked to implement the changes by colleagues on the TCAB team, who were familiar with the unit's reality, rather than by an authority figure. Members of the interprofessional team and even other departments were deeply involved in TCAB. They were informed of what was happening, and they were asked to contribute their opinions and suggestions before changes were made. The involvement of other professionals encouraged the dissemination and standardization of practices because they were able to perpetuate changes by influencing other professionals. One nurse manager noted:

It's easier for the other people when it's coming from nurses that actually work at the bedside because some... will say, "Oh, yeah, you want me to do this, but you don't know what my reality is." If it's coming from their colleagues that know what the reality is, then it's easier.

Sharing Leadership for Change

The leadership model became inclusive; it considered the opinions of a larger group of professionals that included members of the unit and the multidisciplinary team, as well as patients and their families. In this way, nurse managers received and shared more information that provided them with a better overview, allowed them to make better informed decisions, and enabled them to better organize and plan for the changes to be made. The TCAB team model taught nurse managers to more effectively recognize people capable of supporting them, to whom they could delegate tasks. One nurse manager stated:

You see who is in your leadership. You see the strong nurses on the floor, and you are empowering them. You're taking them into this thing, and you're giving them things to do that before maybe I wouldn't have thought as much.

Impact of Changes

The program had a positive impact on TCAB teams, especially by reinforcing a sense of group cohesiveness and belonging, as well as an awareness of others. The strength of TCAB was teamwork, where each and every person was entitled to an opinion and could rely on the others; changes no longer occurred in an isolated manner. The success of change and its continuation de-

pended on the involvement of everyone directly or indirectly concerned by the changes, including other members of the unit, members of the multidisciplinary team, patients, families, and patient representatives. One staff member noted:

> Well, I think we are more aware…It's as if we changed glasses and now we see things differently. When someone does something that is not quite right, you put on the other pair of glasses to try to see things differently, to change…We also try to understand the reason…sometimes we ask, "Why can't the other person see it too?"

DISCUSSION

TCAB activities can greatly enhance a health care organization's human capital through their impact on the work culture and individuals' and teams' learning and evolution (Suhonen & Paasivaara, 2011). Participants mentioned how their unit's mode of functioning went from being individualized to teamwork-centered. The work culture evolved toward a more interactive and trusting culture. The interviews showed that changes happened not through individual actions but through teamwork. In addition, the TCAB program affected the human capital by teaching new leadership competencies and new modes of functioning. These skills have the potential to be shared with other health care providers not involved in the TCAB project and also could be applied in the participants' personal lives. In sum, TCAB appears to enhance the human capital by changing the organizational culture and by building the organizational capacities of its members to lead improvement.

TCAB teaches frontline health care providers and nurse managers how to identify areas where changes could lead to improvements, to develop strategies to implement changes, and to adjust and then objectively evaluate those changes (Institute for Healthcare Improvement, 2014). Thus, TCAB activities develop the capacity for change by rendering the competencies, tools, and resources available to frontline staff. When frontline staff have access to these resources, they can influence changes, which can then result in observable improvements (Rondeau, 2008). In the focus groups and the interviews, participants mentioned that the TCAB project helped them develop new skills, which gave them new capacities for change. This bottom-up approach to change seemed to help engage frontline staff directly affected by the changes and to enhance their acceptance and trust.

Previous qualitative evaluation of the TCAB project also found that over time, TCAB teams and frontline staff assumed more and more leadership roles in terms of the proposed innovation to test (Pearson et al., 2009).

The results of the current study further corroborate past research that also showed being involved in the TCAB project leads to feeling valued and considered (Dearmon et al., 2013; Roussel et al., 2012) and that frontline nurses need to be involved in deciding what must change for them to embrace the changes (Roussel et al., 2012).

Study Limitations

This study was conducted in three units of one health care organization, which limits the generalizability of the results. However, three different units were involved in this study: a pediatric medicine unit, an acute respiratory care unit, and a neurology unit. The results of the current study need to be replicated in a different organization.

Implications for Practice and Education

This study highlights the importance of involving frontline staff in the change process to facilitate tangible improvements in patient care and work environments. TCAB activities are specifically designed to develop the change capacities of the participants by giving them a voice as well as the tools and resources necessary to identify, implement, and evaluate change. The leadership competencies resulting from active participation in the TCAB program must be supported by nurse managers

and upper management long after completion of the program. New improvements to patient, staff, and organizational outcomes can always be made. However, support for frontline staff and managers to keep developing the skills needed to lead change must be ongoing. In addition, the longer the development of frontline staff's change capacities is supported, the more easily the new competencies, tools, and resources will spread to other units within the organization.

CONCLUSION

A TCAB program targets change in five foundational elements (Institute for Healthcare Improvement, 2014): safe and reliable care, vitality and teamwork, patient-centered care, value-added work processes, and transformational leadership. Overall, this study showed that the TCAB program implemented in the three units was successful in improving most of the targeted elements. More specifically, the interviews showed that the TCAB program fostered teamwork, expanded the participants' vision, and taught transformational leadership skills. In addition, this study showed that the TCAB program can help develop health care providers' and managers' change capacities. The program, which aimed to have frontline staff implement and sustain quality improvements, appeared to be successful in developing change capacities that can eventually migrate throughout the organization.

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