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Background

The McGill University Health Centre (MUHC) is a large academic health sciences centre in Montreal with a workforce of approximately 16,000. It provides adult and pediatric services in its six hospitals: Montreal General Hospital, Royal Victoria Hospital, Montreal Children's Hospital, Montreal Neurological Hospital, Montreal Chest Institute and Lachine Hospital. The organization has undertaken a significant redevelopment project that will consolidate services on three sites. This project entails construction of a new multi-billion dollar facility (opened in 2015) and modernization of the Montreal General and Lachine hospitals. As a result, the number of inpatient beds and outpatient activity across the MUHC has dropped, prompting the organization's leaders to rethink how care processes should be redesigned. The redesign initiative also provided an opportunity for the organization to engage with patients in a different way – by embedding them as members of unit-improvement teams.

Patient Engagement

The notion of involving patients is not new for the MUHC. Healthcare organizations in Quebec operate in a regulatory environment that requires them to establish and support "users' committees" of patient representatives, with at least five members elected by each institution's users. The committees' mandate is to inform health services users of their rights and responsibilities, to enforce those rights and to promote improvement of services and client satisfaction (Ministère de la Santé et des Services sociaux 2006). The MUHC has had seven users' (patient) committees for many years (one per site and a central committee); has elected patient representatives on its board of directors; and a patient is the chairperson of the Committee on Quality and Risk (one of the organization's most important committees).

In 2007, the MUHC was the first organization in Quebec to introduce the My Toolbox program, based on Stanford University's chronic disease self-care management program. This patient-led program, offered throughout the Montreal region, has produced several master trainers from amongst MUHC patients and has strengthened self-care competencies in hundreds of persons living with chronic illnesses. In 2010, the director of nursing, Patricia O'Connor – recognizing the value of patient-based experience and ideas, as well as the untapped talents of front-line care providers – brought staff and patient representatives together to co-design care and work processes. She introduced an initiative called Transforming Care at the Bedside (TCAB), leveraging knowledge gained through the Commonwealth Fund's Harkness Fellowship program (supported by the Canadian Foundation for Healthcare Improvement) (O'Connor et al. 2012). In 2011, a new governance structure was created within the cancer program (Office for Quality Improvement), which has two patient representatives as members of the team.

Key Strategies to Support Patient Engagement

TCAB is a program developed by the Institute for Healthcare Improvement in the US. It engages nurses to lead process improvement efforts aimed at improving patient outcomes and the work environment. TCAB's focus is on teaching front-line staff how to use rapid cycle improvement processes with the Plan-Do-Study-Act (PDSA) model, and it enables each hospital unit to identify and accomplish measurable improvement projects. Currently used in over 200 US hospitals, TCAB has demonstrated clear improvements in patient safety, quality of care and quality of work life.

Having completed a case study during her fellowship at one of the original hospitals testing TCAB, O'Connor was convinced that the program could be even more innovative if patients were directly embedded as partners in co-designing quality improvements within the unit-based teams. In order to pilot TCAB at the MUHC, she obtained funding from the Canadian Health Services Research Foundation (now called the Canadian Foundation for Healthcare Improvement) through its Patient Engagement Project in 2010. An important strategy to ensure successful implementation was convincing hospital

administrators and other stakeholders of the added value of TCAB and how the program would align with organizational goals to improve effectiveness, efficiency and patient flow. In August 2010, TCAB was launched on five units in three MUHC hospitals. Sixteen patient representatives volunteered to join the various TCAB teams. No organization had previously embedded patients in TCAB training and TCAB redesign work.

Three main objectives guided TCAB efforts at the MUHC:

- Understanding care through the eyes of patients and families in order to improve the patient experience of care.
- Inviting patients and families to work with staff to redesign care processes so that they would be more responsive to their needs.
- Increasing the time nurses spent in direct patient care.

TCAB is delivered in four learning modules of 10 weeks each. Workshops, combined with hands-on learning one day per week with the teams, focus on developing skills in four areas:

- Rapid cycle improvement processes using PDSA.
- Improvement of the physical environment using Toyota Lean 5S methods.
- Patient experience of care module incorporating a bundle of three interventions (i.e., whiteboards at the bedside, therapeutic questions, hourly intentional rounds).
- Process mapping to improve admission and discharge processes.

Training for all TCAB team members allowed them to learn improvement and project management skills together. Throughout the program's implementation, team members acquired a common improvement language and learned while doing. As patient and family representatives came to understand staff members' work processes and challenging practice environment, and the staff members recognized patients' constructive insights, they began to build relationships and develop a sense of shared responsibility, developments that were essential for both engagement and improvement efforts.

MUHC staff members – primarily nurses – report benefits from engaging patients in the change process, noting that patients contributed different points of view, which helped to ensure that the changes proposed and implemented addressed their needs (Lavoie-Tremblay et al. 2014b). As one nurse stated, "It gets them (patients) involved. … [T]hey don't just see us as making all the decisions. It gives them, I guess, a way to communicate their ideas, their feelings about certain things … because at least, once you asked the patient and the family how they feel about something, then we can refocus ourselves on making it better for them. … It's very important to the family members to give us input."

TCAB patient representatives were already familiar with the MUHC, and their previous experience helped prepare them to participate in the program. However, the time spent on further clarifying roles and expectations, guided by a skilled facilitator, was a key project enabler while team members continued to negotiate new roles, responsibilities and boundaries over time. Patient representatives learned to work as a team and to expand their outlook. In addition, new relationships developed among the various players, and they shared new roles that allowed them to translate the desired changes into actions and to make the results visible. As one nurse said, "I think the whole thing is we're trying to improve care. It's all about them [current inpatients] anyways. So, if we're gonna make changes that impact them I think we have to get them involved. I mean, they have to … basically be a crucial part of the whole decision and the whole process."

Senior MUHC leaders (Lavoie-Tremblay et al. 2014a) also played a crucial part by setting clear expectations for managers and staff, and by acting as role models for how to engage with patients. They carefully monitored progress, sought regular feedback from patient representatives and teams, made mid-course corrections by adopting strategies from the successful National Health Service program (The Productive Ward), ensured the presence of skilled facilitators and obtained additional funds to secure protected release time for staff (after recognizing that the pressing demands of patient care were eroding staff and management attention to the improvement work). The engagement of front-line managers was also fundamental to ensure TCAB's success.

Measurement

"We knew we didn't have very good information about the patient experience of care," said O'Connor, who made a point of systematically building measurement into the heart of the TCAB initiative. The MUHC was the first organization in Quebec to introduce the Hospital Consumer Assessment of Healthcare Provider and Systems (HCAHPS) patient experience of care survey. "The HCAHPS patient experience survey used throughout the US gave us a much more concrete measurement than the patient satisfaction surveys traditionally used in Quebec. For the first time at the MUHC, we were comparing ourselves with others in terms of patient experience," noted Dr. Alain Biron, assistant to the director of quality, performance and patient partnerships. "And we found that we weren't actually doing so well. When we were doing patient satisfaction surveys, everyone was quite happy with the results and scores were quite high. But when we changed the question from 'Are you satisfied with the information you received?' to 'Did we give you written information upon discharge?' as a yes or no question, results changed." Other organization-level measurement focused on time spent in direct and value-added care by registered nurses, work satisfaction, team effectiveness and turnover rates.

At the micro or unit level, front-line teams and patient representatives measured and examined the before and after results of dozens of rapid cycle improvements tests.

Each unit also chose a quality indicator – such as medication errors, pain or hospital-acquired infections – that needed improvement, and tested new practices to find those having the best outcomes. This process helped TCAB teams take ownership of their improvement efforts, set goals, design measurements and evaluate results. "Measurement was embedded even at the stage of identifying what the teams wanted to change," said Biron, "and TCAB facilitators were available to help units design and take those measurements."

Patients played a central role at multiple levels. On the units, TCAB patient representatives would talk to inpatients and get their feedback on proposed improvements. Along with a research assistant, they also conducted post-discharge interviews in patients' homes. "Patients were probably more open with us than they might have been with one of the nurses," observed Brenda MacGibbon, a patient representative. "While some staff were hesitant at first about opening up the closed universe of their unit to 'outsiders'," added Biron, "they came to value the different perspective that patients contributed to discussions."

Impact

Initially implemented on five hospital units, the TCAB initiative has now spread to 19 units across the MUHC's six hospitals. Grants totalling $1 million and in-kind investments of $1.6 million have allowed the MUHC to accelerate and spread co-design activities. Between 2010 and 2015, approximately 45 per cent of front-line clinical staff were exposed to TCAB learning. The TCAB program was recognized as a Leading Practice by Accreditation Canada in 2014, as was one of the specific interventions introduced, through TCAB, and sustained on a mental-health services unit. On that unit, traditional serial admission interviews by a physician, social worker, occupational therapist and nurse were replaced by a joint team interview. Remarkably, the admission process time decreased from 4.3 hours to only 1 hour; in addition, patient satisfaction doubled.

Through a collaborative process involving staff and patients, nursing stations, medication rooms, family visiting rooms, treatment rooms, supply rooms, staff lounges and patient dining areas were redesigned. As a result, an average of $3,000 worth of equipment per unit was returned to the MUHC's Biomedical Engineering department. Designated spaces were also created for equipment, significantly reducing time spent hunting for and gathering it.

TCAB also led to the development of patient education materials; the implementation of hand-off processes and documentation; the establishment of visual triggers to shorten bed-turnover time; and the creation of a quiet zone for nurses, resulting in a 60 per cent decrease in medication transcription errors in one unit. The initiative has also resulted in an 8 per cent increase in time spent by registered nurses in direct patient care. Reductions in nurse voluntary turnover and overtime were also statistically significant (Lavoie-Tremblay et al. 2013).

Whiteboards introduced at each patient's bedside enabled patients and their families to communicate with their care teams, and to provide support and encouragement to each other. On the hemodialysis unit, the proportion of patients who received their monthly blood results containing critical values increased from 40 per cent to 100 per cent, based on patient-led changes. *Clostridium difficile* and vancomycin-resistant enterococci rates that were the second worst in the province saw 25 per cent and 26 per cent reductions, respectively. Staff and the nurses' union reactions to TCAB and patient involvement in redesigning care were consistently positive (Lavoie-Tremblay et al. 2013). And pre- and post-measures of five dimensions of team effectiveness showed statistically significant improvements.

Patient representatives identified needs that staff never would have imagined. For example, while the family room in an oncology unit was a source of pride to nurses and staff, the patient representatives pointed out that patients with cancer really did not want to look at walls covered with cancer posters and pamphlets while they were visiting with family. "Today, the walls are painted and art hangs where the pamphlets used to be," said MacGibbon. TCAB patient representatives were highly engaged and valued; in the words of one nurse, "I don't understand why there is not a patient rep in every unit to help us. They are our customers. If you don't know what their needs are … you cannot personalize the care. So there should always be a patient rep." A patient representative echoed this sentiment: "As a patient rep, I feel empowered to know that my input is valued and put into practice for the benefit of patients and families. This has given me the confidence to recruit other patient representatives in this patient engagement TCAB role."

Summary

The MUHC has been able to build patient engagement into the TCAB program and other activities, leveraging work that develops the capacity of staff and patients/families to partner in co-designing improvements in patient, staff and organizational outcomes. It is committed to further organization-wide initiatives to embed patients in its various decision-making processes and structures.

The MUHC continues to invest in and seek out support to expand its partnerships with patients and families. In 2014–2015, two MUHC teams were accepted into CFHI's pan-Canadian Collaborative on Partnering with Patients and Families for Quality Improvement, and CFHI invited O'Connor to be a lead clinical faculty member in supporting the 22 teams in the collaborative. A new MUHC Patient Partnership program was created to support a program coordinator and a senior advisor for patient engagement across the MUHC. New collaboration is underway with the *Direction collaboration et partenariat patient* (Collaboration and Patient Partnership Directorate) at the Université de Montréal, which has expertise in educating healthcare professionals to understand patients as partners in care management.

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