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RESEARCH ARTICLE

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Adapting Hospital Work During COVID-19 in Quebec (Canada)

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ABSTRACT

Among hospital responses to the COVID19 pandemic worldwide, service reorganization and staff reassignment have been some of the most prominent ways of adapting hospital work to the expected influx of patients. In this article, we examine work reorganization induced by the pandemic by identifying the operational strategies implemented by two hospitals and their staff to contend with the crisis and then analyzing the implications of those strategies. We base our description and analysis on two hospital case studies in Quebec. We used a multiple case study approach, wherein each hospital is considered a unique case. In both cases, work adaptation through staff reassignment was one of the critical measures undertaken to ensure absorption of the influx of patients into the hospitals. Our results showed that this general strategy was designed and applied differently in the two cases. More specifically, the reassignment strategies revealed numerous healthcare resource disparities not only between health territories, but also between different types of facilities within those territories. Comparing the two hospitals' adaptation strategies showed that past reforms in Quebec determined what these reorganizations could achieve, as well as how they would affect workers and the meaning they gave to their work.

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Introduction

Hospitals have been crucial for managing the COVID19 pandemic across the globe.[1] Not only have they been used to care for patients, but their saturation rate became a public indicator driving other responses, such as confinements of the population at large or of subpopulations at particular risk of developing severe forms of COVID19 or of infection/hospitalization. With their limited material and human resources, hospitals needed to be adjusted and adapted to face the pandemic crisis. To that end, service reorganization and staff reassignments have been major hospital responses to the COVID-19 pandemic worldwide.[1,2] Our aim in this study was to examine the operational strategies implemented by two hospitals to cope with the crisis, and more specifically work reorganization through staff reassignments, and to analyze the implications of those strategies for hospital staff. We define hospital work as activities performed by hospital staff to produce care, both directly, as in services provided by health professionals, and indirectly, as in the support services provided by ancillary and support workers (laboratory technicians, orderlies, housekeeping staff, etc.), whose essential nature was revealed by the pandemic.

At the outset of the pandemic, Quebec was the province most affected by COVID-19 in Canada.[3] A public health emergency was declared on March 13, 2020, by the Quebec government. By July 11, 2020, Quebec had experienced approximately 56,000 cases of COVID19, with 5,643 deaths related to COVID-19 for a population of 8.5 million (i.e., the second most populated Canadian province). The vast majority of these deaths (92%) occurred in people aged 70 years and older, and 69% of deaths were among people living in residential and longterm care facilities.[4] Between March and April 2020, preserving hospitals' capacity to cope with the anticipated mass influx of COVID-19 patients was the highest priority for the Quebec government. Official communiqués and orders focused on the impossibility of transferring patients from external care settings, and particularly longterm care facilities, to hospitals, and on how to facilitate personnel transfers from one sector to another.[5] Faced with these new government orders and the need to adapt to human resources shortages, hospital managers adopted a variety of strategies.[6] Work reorganization took the form of reassignments that involved moving personnel in space (e.g., to other

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departments/services, other structures/organizations) and in time (e.g., compulsory overtime, rearranged schedules).

To understand those reorganizations and the conditions under which they could be implemented, it is important to note that the Quebec health system underwent major health care reforms in 2015 to integrate health and social services. The reform changed health governance and centralized health resource management into 34 "*centres intégrés de santé et services sociaux*" (integrated health and social services centers, or CISSS), which were directly under the Ministry of Health. Whereas the vast majority of health and social services facilities on each territory were merged into CISSSs, others, most often university hospitals, were "nonmerged" and maintained relative autonomy over their resources. This background explains some of the possibilities and impossibilities of work reorganization, as described below in our two cases.

Literature Review and Theoretical Framework

Previous studies on health care professionals' work in hospitals during the pandemic have focused mainly on managerial issues and organizational settings. These studies perceived work changes in terms of innovations,[7,8] practice changes, or organizational transformations.[9,10] As theoretical and/or methodological frameworks, they used, for instance, cost–benefit approaches[11] or organizational change theories.[12] Some also investigated more individual aspects of these changes, exploring issues of professional identity among these health care workers,[13,14] or the impact of work changes on their wellbeing.[15] Among these studies, few used a theoretical framework. Lastly, very few studies explored the institutional aspects of these work changes, especially how institutions treated workers and how care was redefined in such a context.[16–18]

To analyze these specific work reorganizations, we used a theoretical framework on health system resilience that focuses on three essential dimensions: absorption, adaptation, and transformation.[19] Absorption refers to the structure's capacity to offer services to those who need them. Adaptation refers to the ways in which practices are changed to cope with the situation. Transformation refers to changes in practices, but also to longerterm institutional changes, in contrast to adaptation, which is more reactive. While such a resilience perspective has often been adopted in studies examining hospital crisis management, our research focused more specifically on hospital staff's lived experience of those strategies. We consider that a narrative approach to studying hospital work reorganization, while less common, offers a potentially more critical and reflexive perspective on hospital resilience and work adaptation.

Materials and Methods

Research Design and Case Descriptions

We used a multiple case study approach.[20] Each hospital is considered a unique case. The study was approved by hospital review boards (MP2120202879) and the Université de Montréal institutional review board (certificate CERSES 20–061 D).

In 2015, Quebec passed health care reform legislation (Bill 10) to strengthen the integration of social services with health services. The reforms resulted in the *de facto* merger of most health and social institutions, with some institutions remaining unmerged and most others being merged into larger health territories. For our study, we selected two cases, one in Montreal and the other in Laval (part of the larger Montreal Metropolitan Area), the two cities most affected by the pandemic in Quebec. These cases represented contrasting organization types as a result of the 2015 health reforms described above.

Our first case (C1), the Center Hospitalier Universitaire (CHU) Sainte-Justine in Montreal, Quebec, is a nonintegrated institution specializing in pediatrics. Founded in 1907, the CHU Sainte-Justine is the largest mother child center in Canada and one of the largest pediatric centers in North America. It has 550 beds and draws patients from across Quebec. Sainte-Justine has nearly 5,500 employees, including 1,530 nurses and nursing assistants, as well as 509 physicians, dentists, and pharmacists. While the health crisis initially put a lot of pressure on hospital staff, this pressure decreased during the spring of 2020 due to the relatively low number of COVID-19 patients at that hospital—the disease being less devastating for pediatric patients (at least, for the disease caused by the original SARS-CoV-2 virus strain).

Our second case (C2) is Cité-de-la-Santé Hospital, which is integrated within the CISSS (Center intégré de santé et des services sociaux/integrated health and social services network) of Laval (Quebec). Cité-de-la-Santé, a general hospital, was inaugurated on April 10, 1978, to respond to the "community and family medicine needs of a population of over 200,000 inhabitants."[21] Today Laval is part of the Montreal Metropolitan Area and its population is approximately 450,000, one of the highest growth rates in Quebec.[22] The hospital has 621 beds, as well as a long-term residential sector with 751 beds. Unlike neighboring Montreal, Laval enjoys a certain geographical and service unity: one island, one city, one hospital, and

one CISSS responsible for health and social services. With respect to COVID-19, Laval has been one of the territories most affected in Canada. At the height of the epidemic, Laval's morbidity rate was second-highest in the province, with 1,342confirmed cases per 100,000 inhabitants in July 2020, compared to a mean of 662 in Quebec overall. In terms of COVID-19 mortality, the city was directly behind Montreal at the time of this study. In Montreal, between March and May 2020, 11% of residents in long-term care facilities (CHSLD) died, while in Laval that figure climbed to 14%.[23] Given that its mandate also encompasses residential and long-term care facilities, the CISSS, by extension, became involved in the case (C2), as questions arose regarding the hospital's territory of responsibility.

Data Collection and Analysis

Between June and October 2020, we conducted 27 semi-structured interviews with hospital staff using a diversification sampling strategy.[24] Our aim was to obtain a purposeful sampling including a diversity of perspectives representing the different categories of professionals (physicians n = 5, nurses n = 10, infection prevention advisors n = 5, managers n = 7). Interview participants were recruited through e-mail invitations in each hospital, and then through a snowball strategy, until empirical saturation was attained. Two researchers (authors PMD and LG) conducted the vast majority of interviews (i.e., 24 out of 27), while the three remaining interviews were carried out by a research assistant, who withdrew from the research team at the end of Fall 2020. Interviews were carried out in French, using the same interview guide for all staff categories. Interviewers did not know the interviewees. The interviews were transcribed, professionally translated to English, and coded by the three authors (PMD, MG, LG) using computer-assisted qualitative data processing software (QDAMiner), guided by the principles of thematic analysis based on pre-identified and emergent themes, i.e., using a deductive-inductive approach to coding.[25]

Limitations

This research presents certain limitations in terms of generalizability. Perception bias, the limited number of respondents, and the specific time frame of the study (i.e., between the first wave of the pandemic and the second, which started in October 2020) might limit the generalizability of these findings to other settings.

Results

Adapting to the Pandemic: Contrasting Operations and Modes of Governance

In C1, respondents emphasized the "non-integrated" governance of CHU Sainte-Justine, which gave it special status. Unlike workers in hospitals integrated into a CISSS (or CIUSSS when connected to a university), C1 workers participated in reassignment on a voluntary basis.

> As we're not part of a CIUSSS, they can't decide to move us like that ... from one hospital to another. [I] n one ... in some ... in fact, in most CIUSSSs what happened was, they took employees ... from one CIUSSS center to send them to another center that had needs. They couldn't do that to us at Sainte-Justine (KI13, male, nurse, C1).

In C1, the reassignment of staff was initially designed as a pilot project that gradually offloaded a small portion of hospital personnel to a single facility (the geriatrics institute) that already had historical and geographic proximity to CHU Sainte-Justine. This reassignment was later extended to include certain residential and long-term care facilities (CHSLDs).

In C2, the situation was quite different. COVID-19 put its integrated governance to the test. As one manager reported: "It's COVID that made the CISSS [the health administrative territory]," in that the pandemic forced an integration that until then had not been very effective, at least in relation to CHSLDs, which had been largely neglected. When outbreaks spread to those CHSLDs, the hospital had to send personnel outside its walls and adapt work to those needs. Thus, in C2, reassignment was necessary to avoid absorption at the hospital, and the 2015 health reforms had made such a strategy legitimate. In both cases, anticipated absorption in hospitals was a key determinant of adaptation strategies in their respective health territories.

Reassignment Strategies: Workers at the Heart of Adaptation Strategies

Over a seven-week period in April–May 2020, 150 C1 staff were sent to four CIUSSSs across the city of Montreal to assist in CHSLDs. A key ingredient driving the choice of which CIUSSS or facility to help was prior experience and personal relationships between C1′s coordinator of staff reassignment and the heads of long-term care departments or senior managers in those CIUSSSs. A great diversity of workers and managers were sent: nurses, orderlies, physicians, respiratory therapists, and infection prevention advisors.

Deploying pediatric hospital staff to CHSLDs sounded like a stretch in terms of routine work.[26] However, it met the acute needs of the moment, as the first pandemic wave affected CHSLDs much more than pediatric and general hospitals. Staff in C1 volunteered because they wanted to feel useful but they lacked training/experience. C1′s top management, anticipating the disorientation that their staff would certainly experience when deployed to CHSLDs, offered geriatrics training to each staff member who volunteered.

Being from a pediatric hospital not integrated into a CIUSSS clearly positioned C1′s deployed staff in a "special" position compared to their C2 colleagues who, for their part, had been deployed to CHSLDs on a mandatory basis. Staff from CISSS/CIUSSS sometimes expressed frustration toward C1′s enthusiastic voluntary approach:

> We had an advantage because we're not merged, we're not in a CIUSSS. The situation wasn't the same for nurses, for example, from CLSCs, who had more activities, and who were obliged to go to CHSLDs . . . So, when I said earlier that our approach wasn't very well received [by others, affiliated with a CISSS or CIUSSS], [I meant]: when people are forced to be there, don't want to be there, and on top of that, are going through all these situations that are a bit whacky, it's understandable . . . (KI04, female, nurse, C1).

In C2, the strategies for deploying staff and adapting work were different. Between February and March 2020, reassignment was geared toward anticipating the influx and preparing the hospital. Initially operating on a voluntary basis, as in C1, C2 soon became overwhelmed by case numbers in its peripheral CHSLDs. Reassignment was thus aimed at keeping cases out of the hospital to the extent possible and deploying workforce in response to the needs, which became widespread in all CHSLDs, for infection prevention/control, care provision, and even basic hygiene care.[27] The situation became so critical that a ministerial decree was issued that allowed CISSS/CIUSSS management to reassign staff to understaffed structures. This exceptional decree suspended the rules of usual work organization set out in labor laws and collective union agreements.

> [W]e were working with the Ministry to get . . . this permission, because . . . to tell an employee that "at 4 a.m. you're going to a CHSLD", you had to . . . that was outside the collective agreements . . . . [T]he ministerial order gave us a little more . . . flexibility, and also allowed us to . . . assign full-time work to staff who had part-time positions (KI16, female, manager, C2).

In the end, more than 670 staff from C2 were deployed, mostly to CHSLDs in the CISSS's territory. The reports from C2 staff clearly showed that they experienced this adaptation as a constraint.

> To have more . . . resources. So, we had a period when . . . in almost all sectors of activity—there I'm excluding, say, administrative services or . . . certain sectors that were more on the fringe. But almost all the staff worked full time. Willingly or not. Then . . . the 660 or so . . . [were] sent off [to] establishments A, B, C, D, E, as needed. Willingly or not (KI16, female, manager, C2).

In fact, adaptation was initially a horizontal and organic way of reacting that allowed everyone to give their best to solve a collective problem, as described in the context of C1. However, in the context of C2, and as in many institutions in Quebec, adaptation was coupled with a more hierarchical and vertical obligation: "willingly or not" as quoted above, not to say "mandatory." Thus, workers were the object of adaptation strategies that were imposed rather than discussed, and as such, their lived experience of these adaptation strategies had significant transformative impacts on them and on their work.

Transformative Impacts of Reassignment on Work and Workers

For C1 staff, the reassignment experience revealed stark disparities between the care provided in a well-staffed non-integrated hospital and the care provided in chronically understaffed residences for the elderly.

> So the first week it was harder to settle in, even in terms of management, we really had to pull it together . . . It was a sort of culture clash . . . it was something else, you know, the practice, the setting, so it was definitely a struggle (KI24, female, social worker, C2).

This contrast had various effects on C1 personnel. The predominant feeling reported was one of pride, of having committed themselves to work in difficult conditions when no one was forcing them to do so. This feeling was also grounded in a humanitarian vision of this experience: time-limited and outside the usual constraints of work. However, the conditions they encountered, which may have been tolerable in a crisis mode, prompted deep reflections on the working conditions of other health workers. Their work outside the hospital raised their awareness of the inequities in care and working conditions across the Quebec health care network.

In C2, feelings were also mixed. Even though the personnel felt proud of what they had done, they were exhausted at the time of the interviews, as their reassignment had gone on longer than in C1. While work

adaptations seemed acceptable for a time, their duration beyond what was perceived as necessary or even acceptable led to a widely expressed exhaustion.

> So, you know, after the month of May, June . . . nothing was happening, but they were still forcing us, with the ministerial order . . . I have two little girls, and in the morning they get up between seven and eight o'clock . . . So there I was, sleeping about four hours a night, taking care of my girls, going back to work, and it was like that every day. No vacation, no nothing . . . So I went to see my family doctor—well, I called him—and he gave me a note to go back to my usual schedule (KI19, female, nurse, C2).

The fact that a doctor's note for work overload became the only way to change this nurse's work schedule illustrates the duress imposed when regular work rules are suspended by exceptional decrees. Aside from the pandemic itself, participants also referred to the dynamics that preceded it, directly linked to the 2015 health system reforms:

> I can give you lots of ideas, but . . . it all comes back to the basics. There's been lots of restructuring, lots of . . . cuts in the workplace. There's been a lot of "get by with what you have" and then . . . "forget about the patient." Well, that's what happens (KI14, female, deployed nurse, C2).

In C1, workers had the advantage of being in a non-integrated facility, whereas the C2 workers were compelled to deploy to other settings in their integrated territory. While the reassignment implementations were very different between C1 and C2 (voluntary versus compulsory), in both cases their experience led workers to reflect on the difficult work conditions in those external settings. The experience highlighted the hospital-centered nature of Quebec's health system and the exclusion of CHSLDs from access to hospitals, which had been widely recognized and documented by various commissions before the pandemic.[28,29] In anticipation of the pandemic, in C2 an explicit strategy was implemented to protect the hospital's absorption capacity, to the detriment of older patients, by avoiding transfers from CHSLDs to the hospital.[30] Decisions about reallocating limited human and material resources required ethical judgments and organizational choices. This raised important questions about the hospital's relationship with the facilities on its territory and more broadly with the population it serves.[31]

Discussion

These adaptation strategies, implemented after the issuance of an exceptional ministerial decree, depended greatly on the room to maneuver accorded to each of the two case facilities in earlier health reforms that structured health human resources, their governance, and hospitals' social responsibility for their territories and related facilities, such as CHSLDs. Reassignment experiences were very problematic and revealed numerous health care disparities within the same territory. Ultimately, when analyzing pandemic management, hospital or health system resilience is too often left unquestioned,[32] whereas our results suggest the need to acknowledge more fully that it is the workers who have borne the heaviest burden.

Not only have hospital staff borne a heavy mental burden related to the pandemic,[33] but they have also, in ways that have been less publicized, supported the resilience of their institutions through the materiality of their work (mandatory overtime, reassignment, postponed or canceled vacations, etc.).[34] In analyzing hospital work organization during the pandemic and discussing resilience processes using concepts such as "absorption," "adaptation," and "transformation,"[35] it is important to keep in mind the historical dynamics of past health reforms that influenced hospitals' adaptive capacity in relation to work reorganization. The 2015 health reform in Quebec resulted in "significant budget cuts (7.1%)" and "administrative structures that were ill suited to prioritizing action on major determinants of health."[5]

Hospital Work Adaptation: A Temporal Perspective

From March to June 2020, hospitals were able to absorb the vast majority of COVID-19 patients in conditions that rarely exceeded bed capacity (which had been increased). This was achieved in C2 through coping strategies that protected the hospital, notably by limiting transfers from CHSLDs. Eventually, hospital staff expanded their services outside of the hospital through initiatives such as an "intensive care at home" service, non-traditional care sites, and support to teams in CHSLDs.[36]

The hospital's absorption capacity was thus maintained by limiting patient flows and adapting the work of hospital staff. The hospital's resilience must also be linked with societal resilience. Because of its non-integrated status, C1 was not bound by the ministerial decrees; this allowed for a custom adjustment of teams and individuals. For C2, the decree, which made CISSS/CIUSSS reassignments compulsory, led to workers' exhaustion and feelings of loss of meaning at work,[6] which may partly explain the numerous resignations in this sector since the summer of 2020 and various government measures attempting to retain health care staff. However, these problems experienced in hospital

work are not new, as they were already widely reported by health staff before the pandemic,[37] raising questions around the 2015 reforms.

The question now is what transformation, if any, might occur beyond the "short-term" horizon of strategies dealing with the pandemic emergency. At the start of the pandemic, the lack of material and human resources was a core issue and became a major determinant of crisis management. This prompted the recruitment, for instance, of long-term care orderlies and additional infection prevention experts. Going forward, it is uncertain whether such efforts will be sustained over time and create real transformation of organizations and practices. Another long-standing practice in the network, namely the use of temporary employees through private agencies, was accentuated by the crisis.[29] With this trend, which has been reinforced with each new wave, there is a risk that hospital salaried work would be broken down into discrete tasks for which personnel could be reassigned, contributing to the increased loss of meaning in work mentioned by some of our participants.

Confronted with these adaptations, unions have proposed not only recognizing the obligations inherent in existing collective agreements, but also making certain improvements to working conditions. An agreement was recently signed between the Quebec government and the Fédération Interprofessionnelle de la Santé du Québec for a reevaluation of salaries. Thus, potential transformations are under way through legislative channels, yet the tendency to favor adaptive responses with short-term solutions remains very attractive in management systems based on performance indicators rather than on capacity development through work standards improvements and enhancing the meaning of work for health care workers.[38]

Conceptual and Practical Implications of Adaptation

Terms such as "adaptation" and "resilience" have implications for how situations are analyzed. Thus, in discussing these terms, we maintain a certain critical distance, particularly with regard to the concepts of adaptation[39] and resilience.[32] While these concepts have become imperatives for certain reforms presented as natural and necessary, in fact these reforms themselves have sometimes produced the problematic human resource situations experienced during the COVID-19 pandemic.[6] This hospital work adaptation, which many hospital flexibility advocates would never have imagined,[40] has deeper roots than COVID-19 and wider implications than for the pandemic.

For instance, in Quebec, this adaptation opened the door to unprecedented discussions on the functioning of health care provision. On January 18, 2022, Quebec's Deputy Minister of Health presented a "Guide for the prioritization and management of short-term hospitalizations in the context of the COVID-19 pandemic," which aimed to "redefine the minimum quality of care in the context of a pandemic from the perspective of caring for more people at lower intensity rather than fewer people at optimal quality."[41] Thus, adaptation during the pandemic, especially in terms of hospital work organization, has paved the way for considering the option of providing "sub-optimal" care when deemed necessary. This potential normalization of a double standard of care may create risky situations when some of these adaptations become routinized.

This makes it all the more important to consider work reorganization not only as a variable of adaptation to a problematic situation, but also as a matter of norms, labor law, collective agreements, and rules that institutions or teams set for themselves, explicitly or not.[42] In considering the political dimensions of the links between these adaptations and transformations, we suggest conceiving of work also in terms of normative functions and in relation to legal and organizational frameworks as a form of resistance to the insidious politics of adaptation.[29]

Conclusions

The contrast between the two hospitals' adaptation strategies reveal how past health reforms contributed to determining what these strategies could achieve and how they would affect the workers and the meaning they gave to their work. Future research should focus on how these adaptations fit within long-standing hospital work reorganization processes that extend beyond the particular conditions of the pandemic. More specifically, recognition should be accorded specifically to hospital personnel for their work, rather than to an abstract "hospital resilience." This could mean involving workers more deeply in the hospital's organizational strategies. This could lead to a better understanding of how to design hospital work transformations that are not related solely to crisis adaptations but also to the conditions of work and the meaning given to it by workers.

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Ethics Approval

Hospital review board MP-21-2020-2879, and Université de Montréal IRB, certificate CERSES 20-061 D.

Consent To Participate

We confirm that informed written consent to take part in the research was obtained from each participant prior to the start of the study in accordance with ethics approvals.

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