Hospital System Assessment & Redesign for a New Millennium

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Ellen Rukholm, RN, PhD
Manon Lemonde, RN, PhD
Pat Bailey, RN, PhD
Vickie Kaminski, RN
Bonnie McLellan, RN, PhD
Marie McGirr, RN, MScN
Joanne Palkovits, RN, MA
Raymond Pong, PhD
Renée St Onge, BA, MA

Decision Maker Partners:
Joseph de Mora

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Canadian Health Services Research Foundation
Ministry of Health and Long-Term Care
Principle Investigators:

Ellen Rukholm
Director, School of Nursing
Laurentian University
935 Ramsey Lake Road
Sudbury ON P3E 2C6
Téléphone: (705) 675-1151, poste 3808
Télécopieur : (705) 675-4861
Courriel : rukholm@cyberbeach.net

Manon Lemonde
Associate Professor
School of Health Sciences
University of Ontario Institute of Technology
2000 Simcoe St N
Oshawa ON L1H 7K4
Téléphone: (905) 721-3111 ext. 2706
Télécopieur : (905) 721-3189
Courriel: Manon.Lemonde@uoit.ca

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For more information on the Canadian Health Services Research Foundation, contact the Foundation at:
1565 Carling Avenue, Suite 700
Ottawa, Ontario
K1Z 8R1
E-mail: communications@chrsf.ca
Telephone: (613) 728-2238
Fax: (613) 728-3527

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Ottawa (Ontario)
K1Z 8R1
Courriel : communications@fcrss.ca
Téléphone : (613) 728-2238
Télécopieur : (613) 728-3527
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Renée St Onge, BA, MA
Joseph de Mora

1 Laurentian University
2 St. Joseph’s Health Centre
3 Sudbury Regional Hospital

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Key Implications for Decision Makers

- The introduction of a code of conduct during hospital amalgamation had a very positive effect on the organization.

- Education opportunities are a key form of support during amalgamation.

- More time is needed for middle-managers to give support to staff during the transition process. Both participants noted managers were too busy to do it.

- Succession planning programs would help shape future leaders within the organization.

In general:

- Harms from hospital integration are seen as short-term difficulties: inconveniences for patients, anxiety and stress for staff, pressures on budgets, and increased costs.

- Change is constant and affects the entire organization, from physical moves to leadership changes. Constant change brings with it chaos and stress, which must be acknowledged and dealt with in order to make the organization effective.

- Improving (or at the very least preserving) high-quality patient care is the most important issue for everyone in the organization, and this improvement needs to remain a central focus of and the main reason for the change.

- Chaos/stress, culture, voice, support, and context are key elements of a model titled Managing Transitional Chaos that depicts the hospital integration process. This model looks at the process of integration, representing it as involving many fluid, inter-connected concepts.

Recommendations for addressing organizational change and the resulting chaos and stress include:

- providing constant communication in the organization;
- acknowledging, appreciating, and understanding different work cultures during amalgamation and working towards easing amalgamation;
- providing ample and appropriate support throughout the change process to make the transition easier for staff; and
- acknowledging, addressing, and seriously considering external forces affecting the organization under change (for example, nursing shortages, workloads, etc.).

These recommendations are interconnected and must be considered simultaneously rather than as isolated parts.
Executive Summary

In 1997, Ontario’s Health Services Restructuring Commission ordered the Sudbury region’s three hospitals to merge. The integration process caused a great deal of instability and anxiety in the Sudbury healthcare system. Currently, hospital services are still delivered at three sites, while a new hospital is being built on one of the former sites.

There is little evidence or information on how integration works in a northern, non-teaching referral centre that serves both rural and urban populations. As well, there are few studies on what managers and policy makers perceive to be the benefits and harms of healthcare mergers. This research project developed an evidence-based model to be used by managers and policy makers, both in the Sudbury region and in other similar jurisdictions throughout Canada.

Data were collected through semi-structured interviews at three times during the integration process. Three groups of people were interviewed each time: decision makers, care providers, and care recipients (that is, patients and their families).

The participants identified the key themes of constant change, and the chaos and stress change causes, which affect both the organization and its individuals. Change, as identified in the interviews, was not limited to physical moves; it was broader, covering leadership changes as well. Throughout the study, all people believed the hospital was operating in a continuously chaotic environment, and there was uncertainty for the future and frustration due to construction delays.

Besides constant change, chaos, and stress, a number of other significant themes were identified by the study:

- Patient care was central in the discussion of restructuring. Many positive changes which occurred in the delivery of care and in the philosophy of patient care were highlighted. Although there were not any improvements by the end of the study, a
number of participants stated that the quality of patient care was maintained during the transition period.

- **Voice** includes perceptions around communication, input, and decision-making. Though all stakeholders agreed there can never be enough communication, they had different ideas about the best way to communicate.

- **Culture** encompasses both the informal and the formal rules that govern the organization; in other words, the ways of “being” and the ways of “doing.” Staff saw the standardization of policies and procedures across all three sites as a main concern, but there was also concern about the effect of merging three different organizational “ways of being.”

- **Support** involves three main issues: educational opportunities for care providers; leadership support in terms of decision-making; and financial resources.

- Hope for the **future** showed mixed results. At different interview times, participants were either hopeful for the future or uncertain about the final outcome. Most participants felt there would be dramatic improvements once everyone was working at one site. However, the care providers and patients expressed uncertainty about this.

- Participants identified many recurring **contextual issues/external factors** that added to the complexity of the integration process. These included professional shortages, financial resources, and government policy.

Specific strategies for improving the amalgamation experience included introducing a code of conduct, maintaining or increasing education opportunities, earmarking specific time for busy middle managers to give support to staff, and implementing succession planning programs to help shape future leaders within the organization.
Change is traditionally depicted as a linear process that moves from pre-existing conditions through the implementation process to stabilization. However, the data from this study suggest that the integration process is dynamic, characterized by constant change, and marked by repeating periods of normalcy and chaos. The proposed *Managing Transitional Chaos* model is a different way of examining and understanding integration, representing restructuring as a circular process with inter-connected concepts that could change from one moment to the next. Patient care, as the priority of the organization, is at the core of the model, encompassed by a state of transitional chaos that affects and is affected by voice (communication and input in decision-making), culture (processes used to operate the organization, procedures or standards of professional practice, codes of conduct, beliefs, and values), and support (leadership, education, and financial resources), all within the context of external factors (ministerial directives and human and financial resources). These concepts are inter-connected and are the main elements affecting integration and increasing stress among stakeholders.

Challenges around and strategies to cope with each of the key concepts are identified. Strategies for managing chaos include assessing the environment to determine challenges around support, voice, culture, and context. Strategies for increasing voice include using multiple ways to seek input, participate in planning, disseminate information, increase public awareness, and gain commitment and involvement. Strategies for considering the cultural implications of merging existing organizations include jointly developing and implementing standardized ways of “knowing” and “doing,” using best practice guidelines, and standardized ways of measuring quality of patient care. Strategies for ensuring there is support for staff include providing adequate resources (human and material) throughout the process and ensuring that support (educational, leadership, and financial) is flexible, personalized, and appropriate for the situation and the context based on an assessment of the organization’s needs. Strategies for managing external forces include considering implementing an evidence-based workload measure.
In the 1990s, Ontario created the Health Services Restructuring Commission to examine the province’s hospitals and determine a more efficient management system. The force behind amalgamation was the government's policy that emphasizes maximal use of resources at minimal cost. Though some work on amalgamation had been done in previous years, the directive from Queen’s Park spurred restructuring. In response to the directive, the three acute-care hospitals in the Sudbury region merged in March 1997 into L'Hôpital Regional de Sudbury Regional Hospital, a single healthcare corporation for the region. Currently, hospital services in Sudbury are still delivered at three sites, and construction of a new hospital is ongoing at one of the former sites.

Compared to communities in Southern Ontario, Northern Ontario communities have higher mortality rates, a higher incidence of heart and cardiovascular diseases in both men and women, a higher incidence of respiratory diseases, and higher rates of injuries, poisoning, and suicide, particularly among youth. The areas surrounding the City of Greater Sudbury are predominantly rural, and Sudbury Regional Hospital serves various populations, including a large First Nations population and a large francophone population.

In 1997, the Ontario Hospital Association noted that merging hospitals is much more difficult than restructuring within one institution. The process of merging existing hospital governing boards, professionals, and support staff, as well as moving programs and staff across sites to plan for construction, caused a great deal of instability and anxiety in the Sudbury healthcare system. As the largest group of healthcare providers, nurses were one of the groups most affected by the merger and downsizing, in terms of lost permanent professional nursing positions and high stress levels from workload increases.

Managers and policy makers need evidence during restructuring to understand the integration process. This research project developed an evidence-based model to be used

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1 In the remainder of the text, l'Hôpital Régional de Sudbury Regional Hospital will be referred to as Sudbury Regional Hospital.
by managers and policy makers both in the Sudbury region and in other jurisdictions with similar contexts throughout Canada. Maximizing the benefits and minimizing harm from the hospital restructuring process in Canada became the focus of attention for stakeholders in the late 1990s.\(^3\) To date, however, little is known about how this process works in a northern, non-teaching healthcare referral centre that serves both rural and urban populations. Further, there are few studies which address how managers and policy makers perceive the benefits and harms of healthcare mergers or describe a comprehensive picture of the merging process over time.\(^{11,22,23,29,33,1,4}\) A case study approach allows regular feedback to stakeholders to help them effectively understand and manage the complex process of merging three acute-care hospitals into one healthcare corporation.

The following three research questions formed the basis for this research project:

1. What was the theoretical/conceptual basis for the change process used in the integration of health services as perceived by identified stakeholders?
2. What do stakeholders see as the benefits of integration?
3. What do stakeholders see as the harm of integration?

The study captures stakeholders’ experiences of the integration process, helps recognize the harms and benefits of that process, and helps develop a realistic model for implementing change.

**Implications**

The study provides information to guide decisions during integration. Specifically, it aims to create a model for decision-making in hospital restructuring sequences that occur in similar northern and rural contexts. By understanding the process, decision makers at other hospital integration projects will be aware of the potential problems they will face, in terms of logistics and personnel issues. The people who will best make use of this research are those who make policy and operational decisions and those who are subject to them. Stakeholders include care providers, care recipients (patients and their families), and decision makers. Specifically, the information will be best used by managers,
administrators, and supervisors when addressing the concerns of hospital staff and patients. Patients are the most important stakeholders, because any changes in the atmosphere of the facility can affect their care. This research helps ensure that maintaining patient care standards remains a high priority, by making sure the decision makers, planners, and staff are aware of potential difficulties and ways to avert them or minimize their disruptive effects.

Being aware of the road ahead can help decision makers anticipate and prevent problems. Knowing that their voice has been heard and that their concerns are understood can have a great effect on the morale and stability of the staff; this in turn affects the overall facility in a positive way. Combined, these can make the integration process much easier on all stakeholders. The narrative generated by the study will also be of use in informing other hospitals of what to expect in such a turbulent environment.

The results of this project will affect the management of services and the development of health services policy in three different ways: first, in understanding the change process; second, in documenting benefits ancillary to cost benefits; and third, in articulating harms. The examination led to the development of a realistic model for change implementation in current and future healthcare settings. It is also useful for managers or policy makers to be able to articulate the negative effect of merging three different hospital cultures into one organization and continuing to use three service delivery sites while construction is ongoing at one site.

**Approach**

**Design**

In order to achieve a comprehensive understanding of the merging process, a qualitative case study/action research approach was used. This method becomes part of the change process by helping the stakeholders in the organization study their own problems in order to solve them. Action research also enhances organizational learning and develops a level of organizational awareness, which facilitates the development of shared ownership in a process of reflection and growth.
Data Collection

Data was collected through semi-structured interviews at three distinct times during the integration process. The data obtained at each time were analysed and reported to the participants. Three groups of participants were interviewed; the same decision makers and care providers were interviewed all three times, and new patients were recruited each time. Interviews with care providers and decision makers touched upon similar themes: 1) their perception of what had occurred within the system regarding integration; 2) their perception of the integration of the hospitals; 3) their involvement in the integration; and 4) their perception of the benefits and drawbacks of this process. The interviews with the patients gathered information around 1) their perception of the healthcare services offered at the hospital; 2) their perception of the changes in healthcare services since the integration of the three hospitals; and 3) the perception of the benefits and drawbacks of this process. Interviews varied in length from 30 to 120 minutes.

Sampling

Decision makers, care providers, and patients made up the sample. Decision makers were targeted because of their specific involvement with the change process. The research team recruited specific nursing units that experienced a great deal of change. The type of change varied; some units were transplanted from another site while others merged. In total, five units were selected for the study. Nurses and other care providers had to have been working in the Sudbury hospital system before integration began. Recruitment of patients was done on the five selected nursing units. Clinical nurse leaders were asked to approach potential participants and invite them to participate in the study. Patients and family members who agreed were interviewed by the research assistants.

Participants

The decision-maker group consisted of members of the hospital governance body, senior administrators, medical directors, administrative directors, and clinical managers. The care-provider group consisted of nurses, lab workers, physiotherapists, respiratory
therapists, and social workers. The care recipients consisted of patients and family members. In the second and third case studies, decision-maker and care-provider interviews were done with the same participants as the first case study, although there was a certain drop rate in participation. There were a variety of reasons for the drop rate: move to another unit, retirement, and inability to participate due to time constraints. Patient and family interviews were always done with new participants. The table below illustrates the timing of each case study as well as the number of participants interviewed.

<table>
<thead>
<tr>
<th>Timing of case studies and number of participants</th>
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<tr>
<td><strong>Interviews conducted</strong></td>
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Decision makers and care providers. Those who participated in the first phase of the study were predominately female (78.7 percent). Most respondents were between 35 and 54 years of age (80.8 percent), and the majority (60 percent of decision makers and 77.8 percent of care providers) had worked in the Sudbury hospital system since before 1990. Thirty percent of decision makers held a college diploma, 25 percent held a university degree, and 25 percent held a graduate degree. Most care providers (70.4 percent) held a college diploma.

Care recipients. This group consisted of patients and/or family members. Sixty percent of the participants in this group were female, and 56 percent were older than age 45. Most patients (70.6 percent) were admitted to the hospital for emergency reasons, and 88.2 percent had been in a hospital before. A large portion of care recipients (66.7 percent) rated their current experience with the hospital system as seven or greater (on a scale of one to 10, with one being very negative and 10 being very positive).

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² Four new care providers were added to the sample at this point.
³ DM: Decision Makers; CP: Care Providers; CR: Care Recipients.
Data Analysis

The chosen method of analysis was grounded theory, a method developed by Glaser and Strauss (1967). In grounded theory, constant comparisons are made within the data as a way of analysing data to generate and test a theory. In this case, we developed a theory about the process of integrating hospital services, which has potential for use beyond the local situation.16,21,38

All the interviews were transcribed verbatim and analysed using NUD*IST. The information from the first set of interviews was examined for patterns, and broad baseline categories and emerging themes were developed. Sub-themes for each category were also identified. After the second set of interviews, the researchers re-evaluated the data based on the content and meaning of each primary category. Some categories were subdivided and others combined; this allowed the researchers to develop secondary categories. After the third set of interviews, the content of the secondary categories was again compared and later compressed into tertiary categories or concepts. This conceptual framework served as the basis for subsequent analysis. The framework evolved as the analysis of the subsequent case studies progressed and a deeper understanding of the concepts emerged.

Procedure

After data from each case study were analysed, interim reports outlining the key results were compiled. Results were then presented to a variety of stakeholders: hospital administrators, staff who had participated in the study, and members of the external advisory committee. Presentation of the results to the latter group was done in order to establish external links and assist with the interpretation of the data and the development of the theoretical model. Members of the group consisted of senior managers from other hospital systems that had already been restructured.

It is important to note that there is no empirical evidence that the research findings from each case study caused changes within the organization, since this was not directly measured. However, improvements in the system with regard to certain points raised were indicated in each subsequent case study. Whether this was the consequence of an
increased consciousness about the issues at hand or a natural occurrence in the course of the integration is unknown, although it is a positive result for the organization.

Results

Context

The long-term goal was to have all three existing acute-care hospitals consolidate into one expanded hospital and become Sudbury Regional Hospital. When the first set of interviews was done in March and April 2001, construction had begun on the new building, and services were moved from the construction site to the other two sites. Some nursing units moved to other sites as a whole, while others were integrated with existing units. As a result, facilities were “crammed beyond capacity” (DM01). The second case study was done between November 2001 and January 2002. Few physical changes occurred between the first and second case studies because of unexpected delays in the construction project and financial difficulties. In the fall of 2002, the Ministry of Health and Long-Term Care began an operational review of Sudbury Regional Hospital; data collection for the third and final case study was initially postponed in anticipation of the publication of the review. However, because of delays in presenting the report and in order to meet project timelines, it became necessary to undertake the final case study (November and December 2002) before the results were made public.

Key Findings

All participants were asked direct questions related to the benefits and harms of integration. Respondents spoke in general about the benefits in the long term: more efficient healthcare delivery, better patient care, increased staffing, and better access to resources. On the other hand, harms were seen as only short-term: increased inconveniences for patients, increased anxiety and stress for staff, pressures on budgets, and increased costs. All participants were also asked about their perception of the rationale behind the integration of the hospitals. Efficiency in the delivery of healthcare services, “one-stop shopping,” and patient satisfaction with care were generally stated as the principal reasons for the integration. The major issues facing all participants were
conceptualized as *chaos/stress, voice, culture, support, patient care, contextual issues,* and *future.*

A key theme in all the interviews was that of constant *change* and the resulting *chaos* and *stress.* In the first case study, participants spoke about the changes that had occurred as a result of integration and of their impact on the organization as a whole and on individuals. Changes included physical moves, leadership, practice, and work environment. As one care provider pointed out:

“Too many changes. Changes all the time. You’re not talking just one change and another change has occurred. And not allowing them time to absorb the one change before you’re already, putting out the second change.” (CP10)

Since hospital services had to be transferred due to the construction project, many of the existing care units were moved to or integrated with other units. The work environment changed dramatically for many. Nurses, for instance, had to adapt to new colleagues and/or new environments. Since each site functioned differently before the integration, some staff had to adapt to new policies and procedures; from one day to the next, they had to re-learn many aspects of their job. As one decision maker pointed out:

“Now we’ve taken people that were competent in their world and potentially made them incompetent in a new world. One of the comments made by nurses was, when they began to cross train, a nurse would come to this site for example, and say, be in the OR assisting. And they do totally different procedures and methodologies here. And she went from being a very competent 30-year nurse, who was at the top of her game, to feeling stupid. And so she would go home at night feeling like an idiot being yelled at by physicians, you know, handing out the wrong instruments. Pretty frustrating. Pretty scary thing to do. So suddenly where you were looks very safe and comfortable to go back to.” (DM05)
Much change in leadership and in the decision-making structure occurred as a result of the integration process. In the fall of 1999, Sudbury Regional Hospital implemented program management, with changes in the reporting structure and in the decision-making process. This added to difficulties associated with integration, as staff had to adapt to new managers and management styles from different work cultures, while still maintaining excellent patient care.

These changes were significant for all stakeholders, as they led to a loss of familiarity, a sense of fear, uncertainty and vulnerability, confusion, and low staff morale. Many were resistant to the changes, contributing to the stress felt throughout the organization. This also exacerbated care providers’ perceptions that their workload had increased, with many stating they felt overworked and stretched to the limit. Patients also noted that “nurses appeared much too busy” (CR04).

The significance of the amount of change and its impact was evident in the second and third case studies as well. At each point, the idea that the hospital was a chaotic environment was predominant at all levels. While there was, in the second case study, a general sense that the situation had improved despite the many challenges, there was also reference to the high degree of change that was still occurring. In the third case study, the perception of constant change and chaos was mixed with uncertainty for the future and frustration due to the construction delays and the financial difficulties. The general consensus was that there was a great deal of uncertainty and instability within the organization as a result of the province’s operational review, the results of which had not been released. Many participants indicated they had lost hope in the restructuring process and felt they had been through a great deal of chaos and change for nothing. There was a pervasive sense of anger, frustration, discouragement, and loss of momentum and motivation. The consensus was that morale was relatively low within the organization.

The issue of voice in the context of hospital integration was also central throughout participant interviews, especially in the first and second case studies. This concept
emerged from the understanding of issues related to communication, input, and decision-making. A key element was the lack of control over the decision to restructure.

The perception of communication and input into the process varied depending on the stakeholder group. Care providers were likely to feel they had no voice, and that when they voiced their opinions they were not listened to. As one care provider put it:

“I know we’re all feeling that they’re not getting enough front-line peoples’ input into things. Not only nursing, I’m sure every department’s feeling it: physiotherapy, occupational therapy, labs. They’re making decisions without enough input from us, from the front-line workers that are trying to work in this stressful environment. The decisions are all being made by somebody far away. And I think that’s a big stressor. People are feeling they’re just being told what to do instead of [being asked] how we think it might work better. We’re not given that choice at all.” (CP10)

In contrast, senior and middle managers maintained that ample opportunity was given for staff input. However, some middle managers suggested that care providers were unable to voice their opinions because the process was unaccommodating. For example, one decision maker indicated:

“Because nurses work shift-work, and because they work every day of the week, they’re not likely to come in for meetings after hours or on their days off. And it wasn’t possible to get them away from the unit during working time. It wasn’t like they could schedule their patients or their clients to come in at a certain time and schedule themselves off an hour. And I found that difficult. And I think it would have been nice to have more nursing staff input.” (DM12)

In the second case study, there was a perception by all that the communication strategies used by the organization had improved a great deal. Although care providers still expressed some frustration, there was also a sense that things were improving.
In the third case study, the consensus was that communication in the organization had improved, but some (especially care providers) still did not feel it was enough and believed they had minimal input into the decisions being made. At all levels, participants reiterated the importance of communication; the general consensus was that there can never be enough. However, participants agreed that the difficulty is finding the proper ways to reach everyone.

**Culture** was also an important factor raised by participants in all case studies. It encompassed both the informal and the formal rules that governed the organization; the ways of “being” and the ways of “doing.” All participant groups spoke of both culture and procedures, and these themes were later found to be interchangeable. For example, senior managers and upper middle managers expressed a great deal of concern about the organizational culture as a way of “being,” while lower middle managers and care providers talked more about policies and procedures, the standardization of the formal rules and staff-orientation procedures. Opinions in both groups varied at times regarding the importance of each.

In the first case study, a main concern from the staff perspective was around the issue of standardization of policies and procedures across all sites. As one care provider put it:

> “You’ll talk about something that’s been done or an issue that’s been done on the flow-sheet to try to standardize it. Then you realize that everybody was doing that procedure just a little bit differently at each site. So how can we bring it all together so that everybody is doing the same thing at the three sites?” (CP05)

In the second case study, care providers and middle managers spoke of improvements in standardizing policies and procedures throughout the organization, which in turn improved nursing practice and patient care.
“Because you have staff that are working both sites now, you do have to try to standardize when you can. The delivery method of oxygen, that’s been standardized. And the procedures for cleaning and that type of thing. Initially it was three sites, three different practices. So it’s getting a little bit better. Dumb little issues like that. I mean it’s the minor things. But at least you know whether she is working here or at Memorial it’s the same practice.” (CP13)

Again, in the final case study, many participants felt there was greater stability in the organization, due to improved standardization of policies and procedures.

In all three case studies, participants also spoke of the impact of merging three different organizational cultures, three different “ways of being,” into one:

“Where I see the disadvantages is that we have lost and we’re going to lose some of the culture. The feeling that this was a small, caring, very intimate family that you were a part of. Because we’re going to be a huge organization. And so I think some of the feeling of family and intimacy is going to be gone. I think that some of the nuances of the cultures are going to be lost. Some of the philosophies of care at each of the three institutions has been and will be lost.” (DM06)

In the third case study, participants were asked to reflect on whether or not the integration was leading to a new culture. The consensus was that the introduction of a code of conduct (after the second case study) had had a very positive effect on the organization. There was also consensus that people were getting along much better and that a new culture was developing. Most participants admitted the organization still had a long way to go in terms of culture, and that a new culture would truly emerge and grow only once everyone is on one site.

Support was also seen as an important element within the restructuring. Many participants felt that managers did not give enough support and were too busy to be there for their staff. Middle managers felt they were so busy with the operation of their
departments and with the implications of the transition process that there was not enough
time to give adequate support to staff. One of the issues raised was that of leadership
support with regard to making decisions:

“We’re trying to bring decision to the front line. So we’re asking people to make
decisions that they didn’t have to previously. They don’t feel comfortable in their
ability to make those decisions; that’s an education issue, and it’s also a support
issue. People are overworked. Somebody does make a decision and somebody
else comes along who is having a bad day and says, “you really made a bad
decision.” So we’re not supporting them in allowing them to do that. But I think
the biggest thing is we’re not mentoring people in how to do that. We don’t have
the resources to do that.” (DM20)

Education was also seen as a key form of support. All participants admitted that the lack
of financial resources had had a negative impact on education within the organization.
Care providers and middle managers spoke of the need for more education opportunities.

“They don’t make it easy for you to educate yourself or get education. They do
offer some educational programs, but not the big ones, not the big costers. They
have orientations and in-services, but due to the acuity on the units, nurses aren’t
able to attend. And there is no system in place to relieve, having new staff come in
so people could attend. There’s not that system. And most of the education is
Monday to Friday, eight to four, which doesn’t fit with the shift nurse’s twelve
hours. So the guy who works mostly nights never attends.” (CP19)

Many participants (with the exception of care providers) spoke of the need for training
programs for managers; for the most part, they have very little formal training in
leadership, accounting, and conflict management, since most come from healthcare-
practice backgrounds. Many participants also spoke of the importance of succession
planning programs to held shape future leaders within the organization.
**Patient care** was identified as an important element to consider in the process of restructuring. Throughout the study, participants spoke of the impact of integration on patient care and of the many positive changes that occurred in the delivery of care and in the philosophy of patient care. Many participants stated that although there had not been any improvements, patient care was maintained in the transition period. Some participants, however, admitted that patients had been inconvenienced because of the chaos of the transition phase. The results of the patient interviews also show this. Although many of these participants spoke of specific difficulties encountered during their stay within the hospital, the general consensus was that the staff were doing all they could to maintain an adequate standard of patient care.

Participants’ views on the **future** were mixed. At each phase of the interviews, participants were either hopeful for the future or uncertain about the final outcome. While most participants tended to feel that once everyone is at one site things would improve dramatically, care providers and patients expressed uncertainty about the future. Some participants noted there was much work to be done before things fell into place. The sense of uncertainty was most prevalent in the third and final case study, where most participants admitted there was a great deal of instability and many unknowns around the future of the restructuring project.

Many recurring **contextual issues/external factors** were identified by participants that added to the complexity of the integration process. The reality of staff shortages and increased workload was one of the key issues of the change process. References to nurse and doctor shortages and increased workload were numerous and are representative of the crisis faced by today's healthcare community. These findings reflect the significant nursing human resource problem in Ontario as outlined in the Report on the Nursing Task Force Strategy in Ontario (2001). As one care provider pointed out:

“You can have X numbers of bodies, but if they’re unskilled, it increases the stressors in the institution. And that’s another change that the institution is going through — the shortage of nurses. And that is certainly here and very valid. And
the shortage is going to increase, because the average nurse in the hospital sector is in their late forties. More nurses are looking at fifty-five and out. And a majority of nurses are in that upper echelon. Educational institutions can’t produce experienced nurses fast enough to fill that space that’s going to occur.” (CP02)

Patients were also aware of the issue of staff shortages:

“Look at the shortage of doctors we have up here. It’s ridiculous, it’s absolutely ridiculous. There’s no incentive to keep them up here. Whether it’s GPs or specialists or what not, they’re retiring. My mom’s boyfriend’s doctor’s retiring, had to cut him from his patient list. He’s been his patient for years, and he says, ‘I’m sorry, I’m just about to retire, and I have to cut it short.’ And now he’s out of a doctor. And how’s he’s going to find another one. Who knows?” (CR01)

Although much less emphasis was placed on contextual/external factors in the third case study, this remained a key concept. Most participants, especially care providers and patients, were unable to think of factors such as professional shortages, government policies, and financial resources as separate from the restructuring process.

The findings of this study identified key issues that face this organization in the ongoing process of integration/chaos: factors related to voice, culture, support, and contextual issues. These finding not only allow us to conceptualize the chaotic experience of a transitional process, but also to construct a model illustrating the inter-relatedness of these factors during transition.

**Discussion**

Previous theories of the restructuring process have been linear. They follow a traditional “before-during-after” process, depicting an organization moving through a series of stages, from the pre-existing conditions through the integration process to stabilization. However, the data from this study suggest that the integration process is
dynamic, characterized by constant change, and marked by periods of normalcy and chaos. The proposed Managing Transitional Chaos model, as illustrated in Figure 1, describes a different way of examining and understanding the process, representing restructuring as a much more circular, dynamic phenomenon that is characterized by inter-connected concepts that could change from one moment to the next.

![Managing Transitional Chaos Diagram](image)

In the model, broken lines represent the fluidity and permeability of connections between all the concepts. Patient care, as the priority of the organization, is at the core of the model, encompassed by a state of transitional chaos that affects and is affected by voice, culture, and support, all within the context of external factors. The central theme, chaos/stress, is omnipresent, pervasive, and lacks boundaries. Characteristics of the relationships in transitional chaos include disorder, confusion, emotional stress (illness and injury), helplessness, uncertainty, and hopelessness that immobilize and disrupt the system and the people within it. Other concepts in the model include culture (processes
used to operate the organization, procedures or standards of professional practice, codes of conduct, beliefs, and values), voice (communication and input in decision-making), support (leadership, education, and financial resources) and contextual/external factors (ministerial directives, human resources, financial resources). The concepts of voice, support, and culture are inter-connected, since they are main elements affecting the integration and increasing the stress among stakeholders. Managing transitional chaos may require developing new organizational structures more able to function as learning and knowledge organizations that are proactive and reactive in transitional chaos.

The challenge then is to manage the chaos, which exists as a constant, representing change and all of its impacts (stress, transition). Although it may be perceived as harmful, chaos is also portrayed in the literature as being a potentially constructive learning experience that can generate organizational knowledge.\textsuperscript{15,20,24,27} In transitional chaos, inter-connectedness is disrupted or lost and new patterns of organizational behaviour are disjointed and incomplete. Transitional chaos emerges when external forces impose change on the internal resources and the physical and structural processes, and when unfavourable interactions or relationships between and among the culture, support, and voice exist in the merging organizations.\textsuperscript{20,24} The process of managing transitional chaos involves attending to all the intersecting, inter-connected aspects that characterize transitional chaos, since no part operates in isolation of the whole.\textsuperscript{15,20,27,35,40}

The following table illustrates the principal challenges associated with the key concepts that make up the Managing Transitional Chaos model and proposes recommendations for policy and practice that might help decision makers manage the integration process. These recommendations are inter-connected, and it is crucial that they be considered as a whole rather than as isolated parts.
<table>
<thead>
<tr>
<th>Concepts</th>
<th>Challenges</th>
<th>Recommendations for policy and practice</th>
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<tbody>
<tr>
<td>Change/chaos/stress</td>
<td>The amount of change at all levels of the organization has a dramatic impact on the institution as a whole, and can lead to an overall sense of disorganization. This, coupled with a lengthy transition period and uncertainty, creates a constant state of chaos in the organization.</td>
<td>Chaos is inevitable but needs to be managed. Management strategies include assessing the environment to determine challenges around support, voice, culture, and context.</td>
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<td>Voice (input into decision-making processes and communication)</td>
<td>If stakeholders do not believe they have some form of control over decision-making or input into the change process, or if they believe they are not privy to all the necessary information, the impact on morale and on the institution as a whole can be considerable.</td>
<td>There are strategies for increasing voice: 1) using multiple ways to seek input, participate in planning, disseminate information, increase public awareness, and gain commitment and involvement; 2) using simple key messages; and 3) listening and responding.</td>
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<td>Culture</td>
<td>If hospital administrators do not a) simultaneously consider the ways of “doing” (policies and procedures) and the ways of “being” (organizational culture) of an organization; b) do not emphasize standardization of procedures at the beginning of the transition; and c) do not help foster and sustain the development of a new culture, the impact on the organization will be damaging.</td>
<td>Strategies for considering the cultural implications of merging existing organizations include assessing ways of “knowing” and “doing,” jointly developing and implementing standardized ways of “knowing” and “doing” using best practice guidelines, and standardized quality of patient care outcome measures.</td>
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<tr>
<td>Support</td>
<td>If the organization as a whole does not consider the support needs of the organization and the staff — including financial, educational, leadership, and effective communication needs — the harms of integration (stress, uncertainty, anger, and hopelessness) will be intensified and the benefits minimized.</td>
<td>Strategies for ensuring support is provided include ensuring there are adequate resources (human, material) at all levels of the organization throughout the process; ensuring that support (education, leadership, financial) is flexible, personalized, and appropriate for the situation and the context based on an assessment of the organization’s needs; and providing supports for the physical and emotional stress responses generated by the integration.</td>
</tr>
<tr>
<td>Context</td>
<td>If the organization does not 1) consider the context (workload, finances, government policy, professional shortages); 2) understand that external issues will arise; and 3) take steps to minimize the impact of these contextual issues, the inevitable state of chaos will be amplified and worsened.</td>
<td>Strategies for managing external forces include considering the implementation of an evidence-based workload measure.</td>
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### Need for Further Research

Based on the findings of this study, it is important to note that there is a need for a deeper understanding of each concept outlined in the Managing Transitional Chaos Model and
of the relationship between them. In particular, there are gaps in knowledge about the following:

1. Decision-making — what does it mean for care providers?
2. What are the mechanisms of information transfer/communication that are best suited to an organization in times of change?
3. What mechanisms can be used to provide educational support for staff in a climate of change? How can individual, professional, and organizational needs for supportive education best be met? What is the relationship between personal, professional, and organizational educational development?
4. How do you create a quality-of-work environment in a climate of chaos?
5. How can evidence-based best-practice guidelines be used to provide direction for the establishment of a new culture in a climate of change? How do you support the creation of a new organizational culture?
6. How do you make meaningful connections between educational support, voice, and culture?
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