

EDITORIAL

**Lessons from SARS:
Challenges for the International
Nursing Research Community**

Last March, I (Laurie Gottlieb) travelled by train from Montreal to Toronto. As the train approached Toronto, tension hung in the air. People spoke in hushed tones about SARS (severe acute respiratory syndrome) and about their fear of visiting a city under siege. This was the first inkling I had of the magnitude of the crisis. I had come to Toronto to conduct a focus group session. As the group convened, participants greeted each other with a nod rather than the customary handshake or hug. A few used a hand disinfectant before leaving the meeting. Nobody ate the food. Toronto was caught up in SARS hysteria.

Canada was the hardest-hit country outside of the Asian Pacific region. An influenza that had “smouldered” in China was transported to Toronto, carried by a Canadian citizen returning from a visit to Hong Kong. Both mainland China and Hong Kong had been dealing with SARS for several months.

The international crisis lasted many months, with 8,500 persons diagnosed with probable SARS and 900 deaths attributed to SARS worldwide (Naylor, 2003). The influenza’s lack of respect for borders served to underscore the fact that the world has become a village. In many ways it is fortuitous that Toronto and Hong Kong were the centres of this outbreak. These two cosmopolitan cities, with their know-how and wealth of resources, struggled to cope with the crisis. If these modern, sophisticated cities had difficulty coping, what would have happened elsewhere? Both cities were humbled by the experience, ill prepared to deal with a health threat of this magnitude. To their credit, they have revisited the SARS experience and have learned from its lessons.

The challenges faced in Toronto were not that dissimilar to those faced in Hong Kong. The deadly SARS epidemic exposed the inner workings of the health-care and related systems, and much was found wanting. The various systems proved vulnerable and lacking the capacity and flexibility necessary to adapt quickly and efficiently to a situation that was unpredictable and constantly changing.

Despite their different health-care systems, forms of government, cultures, infrastructures, and communications systems, Canada and Hong

Kong faced similar difficulties. At first glance this may seem surprising. In exercising fiscal restraint during the 1990s, however, governments in both Canada and Hong Kong had targeted the health-care system for reorganization or downsizing. The budgets of public health units were severely cut. Priorities, and subsequently resources and monies, were diverted from infectious diseases to other debilitating and chronic conditions. Health promotion and illness prevention received short shrift. Nursing and other health-care personnel were made redundant. SARS served as a wake-up call for the need to revisit priorities and reorient health-care services.

Now that the dust has settled and government-commissioned reports in Canada (Naylor, 2003) and Hong Kong (Hospital Authority, 2003) have been tabled, it is time to examine what has been learned from this event and to identify the challenges facing our nursing research communities. The overriding questions we must ask ourselves are: If there were a similar epidemic tomorrow, what would the nursing community need to know in order to deal with it effectively? More specifically, what would administrators need to know in order to support nursing practice and ensure quality care? What would administrators and clinicians need to know in order to protect themselves and their patients? What knowledge do clinicians require in order to meet the physical and psychological needs of patients, families, and communities? What should educators be teaching future clinicians?

Let us examine a few of the many lessons learned and what we, as a scientific community, should be considering. The lessons we have selected are those that are common to the Canadian and Hong Kong experience and are important to nurses and all health-care workers.

Public Health

SARS was a completely unknown disease, and no one was prepared for it. The public health system was in such disarray that basic epidemiological methods for determining etiology, spread, and mode of communicability and for tracking down cases were lacking. Nurses have always played a key role in case detection, infection control, public education, risk mitigation, containment, and so forth — good old public health nursing à la Florence Nightingale. Being on the frontline, nurses are part of the team when it comes to detecting patterns. (In fact, a nurse, Agnes Wong, is the person credited with first identifying SARS in Canada. She connected the dots. While caring for a patient who presented with a virulent, unidentified respiratory infection, Wong recalled reading in a Chinese newspaper of a deadly influenza spreading across Hong Kong and mainland China, and she raised the question of whether her patient could have had that same flu.) There has been a call to renew public

health agencies and units and to increase the numbers of public health nurses.

Do we have enough nurse researchers trained in public health and infection control surveillance to collaborate with other scientists? What are the informational needs of patients? Do we have sufficient information to predict risk reduction in situation x or y ? Do we have sufficient collaboration between frontline nurses and nurse researchers to know the most effective way of detecting cases, understanding the risks, disseminating information to patients and communities, and caring for patients and families at home?

Protective Equipment

During the SARS epidemic, nurses and all frontline health workers found themselves using protective equipment and clothing that were wholly inadequate. In Hong Kong there were problems securing enough protective items because of a worldwide shortage. In Canada the equipment in use was ill-suited for frontline health personnel caring for patients with SARS. Most masks, for example, have been developed for industrial purposes and to fit the male, Caucasian facial structure — hardly suitable and appropriate for clinical situations and the gender and racial distribution of health personnel.

Do we have nurse scientists capable of examining the efficacy of different protective equipment for different nurses under different conditions? What kind of knowledge is required to develop guidelines on the use of protective equipment both for nurses and for patients? What additional training in infection control should be included in nursing curricula?

Organizational Issues

The government commissions appointed in the wake of SARS found serious disconnects between and within organizations at various levels: between governments and public health departments; between public health departments and hospitals; among and within hospitals; between hospital administrators and hospital units; among public health units, governments, and the media. There was a disconnect between those making the policies and issuing directives and those needing directives to follow — directives that in fact did not fit the realities on the frontline. There was a disconnect between those communicating information and those needing information; in reality, CNN became the principal clearinghouse for information on SARS. There was a disconnect between manpower needs and the effective deployment of nurses from one hospital to another and from one hospital unit to another. These disconnects under-

score the critical need for planning in the event of an emergency such as an epidemic of SARS proportions.

How can frontline nurses influence policy and decision-making? What factors must be considered in the coordination and planning of care to ensure maximum functioning of the health-care system? What are the informational needs of patients? Nurses? Other health-care workers? What is the most effective means of disseminating accurate and timely information? What are the manpower needs, manpower capacity, and safest, most effective ways of deploying nurses during times of crisis? What strategies are in place for maximizing the health of nurses during future crises?

Emotional Toll

The SARS outbreak proved to be a painful experience for the people of Toronto and Hong Kong, and for those involved in protecting and caring for patients, families, and the public. The suffering was experienced by not only those people who were infected with the disease but all those who lived through the crisis. We have little data concerning the short- and long-term effects of SARS on the physical and mental health of medical personnel and patients and their families, and concerning the effects of prolonged isolation on healing.

What was the experience of living through SARS for individuals, families, health-care workers, and communities? How did the isolation and screening procedures affect patient outcomes? What type of interventions mitigated the stress and suffering? What factors have contributed to post-traumatic stress? What people are at risk for long-term disability?

These are but a few of the questions we are challenged to ask.

Finally, the SARS epidemic highlights the importance of national and international cooperation among governments and agencies to ensure the timely sharing of information. Countless numbers of people stand to benefit from the collaboration of key stakeholders. How can nurses position themselves to play a critical role in planning and organizing care? In this latest crisis, nurses have shown once again, through their sometimes heroic efforts, that the health-care system cannot function without them. Nurses have invaluable information that must be part of any action plan.

How can nurses best contribute our knowledge, skills, and know-how? Should we consider establishing an international centre for the collection and management of data, so that we can share information on all matters that affect nurses, patient care, and nursing practice in order to deal with pandemics and epidemics? Should we consider establishing central repositories for case studies, best practices, and innovations in practice? Should we be thinking in terms of creating a central database to aid in manpower, systems, and organizational planning? Such a data-

base, possibly linked to the World Health Organization, the International Council of Nurses, or the Centers for Disease Control, could be an invaluable resource for disseminating nursing and patient-care information to governments, policy-makers, scientists, educators, administrators, frontline nurses, and the public.

Those who lived the SARS experience need to join forces and seize the initiative to create a new way of doing research, one that transcends borders. The challenge for the international nursing scientific community is to begin talking to our nursing and health-care colleagues now, in order to determine the role that nurse scientists will play in future times of crisis. We need to develop a model for working together as a scientific community in order to meet the next health-care challenge brought about by our connected world and the realities of globalization. The health, recovery, and well-being of so many depend on it.

Laurie N. Gottlieb

Editor

Judith Shamian

Office of Nursing Policy, Health Canada

Sophia Chan

Head, Department of Nursing Studies, University of Hong Kong

References

- Hospital Authority. (2003). *Report of the Hospital Authority Review Panel on the SARS Outbreak*. Hong Kong: Author.
- Naylor, D. (2003). *National Advisory Committee on SARS and Public Health*. Ottawa: Health Canada.