Severe acute respiratory syndrome and its impact on professionalism: qualitative study of physicians' behaviour during an emerging healthcare crisis

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Abstract

Objective To explore issues of medical professionalism in the context of severe acute respiratory syndrome (SARS), a new emerging health threat.
Design Qualitative interviews analysed with grounded theory methodology.
Setting University hospitals in Toronto, Canada, during the SARS outbreak in 2003.
Participants 14 staff physicians from divisions of infectious diseases, general internal medicine, and critical care medicine.
Results Of 14 attending physicians, four became ill during the outbreak. Participants described their experiences during the outbreak and highlighted several themes about values inherent to medical professionalism that arose during this crisis including the balance between care of patients and accepted personal risk, confidentiality, appropriate interactions between physicians and patients, ethical research conduct, and role modelling of professionalism for junior doctors.
Conclusion Despite concerns raised by professional societies about the erosion of professionalism, participants in this study amply demonstrated the necessary qualities during the recent healthcare crisis. However, there were several examples of strained professional behaviour witnessed by the participants and these examples highlight aspects of medical professionalism that medical educators and professional organisations should address in the future, including the balance between personal safety and duty of care.

Introduction

The values of medical professionalism have been threatened by changes in healthcare systems—such as unionisation of physicians, conflicts of interest precipitated by managed care and for-profit healthcare systems, and the role of the pharmaceutical industry in medical education. To meet these challenges, professional societies have recently developed a charter on medical professionalism outlining three fundamental principles including the primacy of welfare of patients, autonomy of patients, and social justice.[1] Professionalism was defined as those values that sustain the interests of the patients above the physician's own.

The recent outbreak of severe acute respiratory syndrome (SARS) allows an opportunity to explore medical professionalism. Stories of physicians who knowingly exposed themselves to contagious and often fatal illnesses with little understanding of the disease abound in history. Similarly history provides stories of physicians who avoided responsibility for treating such patients, for example patients with AIDS.[2] SARS remains unique in the paucity of information about the disease that was available during the outbreak. Moreover, its rapid clinical course, the necessity of providing care for affected colleagues, and the risk of occupational exposure posed unique challenges. We explored the impact of the recent SARS outbreak on healthcare professionalism.

Methods

A random sample of physicians involved with the care of SARS inpatients at three university hospitals was invited to participate.

A research nurse conducted semistructured, individual telephone interviews using open ended questions. Telephone interviews had to be used because of quarantine issues. Participants were encouraged to speak freely, to raise issues that were important to them, and to support their responses with examples. The initial outbreak began in Toronto in March 2003 and a second outbreak developed in May. Interviews were conducted in May and June 2003.

The interview tapes were transcribed and we used grounded theory to analyse the data by generating categories and themes. We started the analysis after the first interview to allow emerging themes to be explored in subsequent interviews. Sampling of participants continued until saturation was achieved and no new themes were identified. Two investigators blinded to the identity of the participant independently coded the data to increase the reliability.

Results

All 14 physicians who were invited participated in the study. Four participants became ill during the outbreak, possibly with SARS though not confirmed. We identified several themes around values inherent to medical professionalism described below.

Balance between care of patients and personal risk

One difficulty encountered during the SARS outbreak was the need to balance acceptable personal risk with care of patients. One participant stated: "SARS has made everybody think about would I participate in a high risk procedure with a SARS patient? And I think most of us have come to the conclusion that yes we would as long as we were well informed about what the

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risk was and as long as we were provided with the appropriate protection . . . But I'm sure everybody has thought about where the line is now that they would draw."

Nine participants expressed concern about personal safety or safety of their family, and all participants involved with caring for SARS patients instituted precautions to optimise safety, including sending their families away and eliminating social interactions. Participants said that, unlike colleagues from the past, clinicians nowadays are not used to the possibility of contracting disease through occupational exposure.

All participants stated that they felt a professional obligation to care for SARS patients. "I don't think it's appropriate for healthcare workers to refuse to look after SARS patients or any other patient. As healthcare professionals we chose this field and that's what we do." Overall, participants found it difficult to put their personal safety ahead of their patients. "You see somebody for example with SARS who desaturates, and you're not allowed to enter the room . . . until we've assumed appropriate precautions. It takes quite a while to get dressed . . . the whole time you're looking at somebody through a video screen or through the window and you're praying that they're still alive by the time you get in the room."

Although there was an overall feeling of "really rolling up the sleeves and working together," several participants described encountering resistance when they asked for help from colleagues. Six participants described healthcare professionals refusing to assess or care for patients with SARS, and expressed frustration over colleagues who stated "I didn't sign up for this" or "they don't pay me enough to take this kind of risk." One participant described "a sense of '9-to-5ism' that medicine never was that's been slowly emerging over the past few years . . . in the past where doctors would stay all hours, it's not like that anymore, there's a sense of more that this is a job and less of a profession."

Confidentiality

Participants who were quarantined described anxiety about the wellbeing of ill colleagues and their frustration in not being able to elicit details about their condition. Knowledge of how their colleagues were faring may have alleviated some of their stress but this must be balanced with the need to preserve confidentiality. Participants also expressed concerns about the media's role in breaking confidentiality.

Physician-patient relationship

All participants described concerns about the impact of the SARS outbreak on their relationships with and care of patients. One participant stated: "We are asking people not to go in to patients and to use video and don't do physical exams or minimise your time in the room . . . thus putting more distance between them. I can't imagine having someone look after me who is dressed like that."

During the SARS outbreak, visitors were largely prohibited from entering the hospital. Participants relied on the telephone for discussions with families about patient management. One participant stated, "To support somebody over the phone was less than ideal and very difficult. I remember telling, I don't know how many families, that their loved one was going to die and [to] do that over the phone and with SARS, [and] having them die alone, that was even worse."

What is already known on this topic

Little is known about the impact of an emerging healthcare threat on medical professionalism

The SARS outbreak posed several distinct challenges, including the paucity of information about the disease that was available during the outbreak, the necessity of providing care for affected colleagues, and the risk of occupational exposure

What this study adds

The SARS outbreak challenged medical professionalism

Educators and professional organisations must advocate principles of professionalism, including the balance between personal safety and the needs of patients, professional respect and collaboration, the conduct of ethical research, and role modelling of professionalism to trainees

Research

Medical professionalism requires that physicians have a duty to promote research and to create new knowledge.[1] Four participants expressed enthusiasm about being at the epicentre of a new disease. Five participants were involved with research efforts and described the experience as a positive one. However, several participants described frustration with the lack of collaboration among investigators. Concerns were also raised that the front line clinicians were unable to have a major role in the development of manuscripts because of clinical commitments, unlike many of the senior authors of the research papers.

Role modelling

In university hospitals, role modelling of medical professionalism is crucial to the educational programme.[1] Dedicated SARS units were created at each of the university hospitals, and consultant physicians assumed primary care of patients, with some house officers from the infectious diseases training programme also providing coverage. House officers working in intensive care units provided primary care for patients affected with SARS in these units. Five participants thought that house officers should be involved with the care of SARS patients while the remainder did not feel it was appropriate. Study participants thought that by working in the SARS units they were able to "role model my commitment for the residents. As part of being a doctor you need to be there on the front lines." Medical students were removed from the hospitals during the SARS outbreak in Toronto, and participants reflected on the impact of this action: "I think it is unfortunate that we took the medical students out of the loop. I wonder what the message sends about professionalism and altruism in the healthcare field."

Discussion

The SARS outbreak provided a unique opportunity to explore the impact of an emerging health threat on medical professionalism. Overall the participants thought that physicians exhibited professionalism, though they witnessed several examples of strained professional behaviour. These examples highlight aspects that medical educators should address. Firstly they need to explore the balance between the clinician's personal safety and the needs of the patients. These discussions should occur explicitly and early in the training process.[3] Secondly, clinicians should be encouraged to consider the interests of colleagues to enhance professional respect and collaboration. Thirdly, during similar outbreaks, research must be carried out and clinicians who are caring for the patients should have the opportunity to participate fully. Fourthly, while professional values should be incorporated from the onset of the clinical career it should be described as an ideal to be constantly pursued. Finally, it has been suggested that a good way to teach professionalism is through role modelling,[4] and those serving as role models need detailed knowledge of professionalism.[3]

The observation that there were instances of strained professional behaviour is not surprising.[5 6] SARS presented the healthcare system with a new potentially catastrophic risk over which physicians believed they had little control and it aroused fear.

Limitations and strengths to the study

There are limitations to this study. Firstly, this study included only clinicians from university affiliated institutions. These institutions provided care for almost half of the patients affected with SARS during the initial outbreak in Toronto. Their experiences may not reflect those of physicians working elsewhere. Secondly, we included only physicians and cannot describe the experiences of other healthcare professionals. However, nurses and support staff were the predominant participants in another study that found similar results.[7]

While several studies have explored the experiences of clinicians during the initial experience with HIV,[8–10] there is little other rigorous qualitative literature on the impact on professionalism of caring for patients with serious infectious diseases. Moreover, this study was completed during a rapidly emerging crisis and therefore we were able to capture physicians' reflections in the immediate setting.

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Corrections and clarifications

BMJ cover page, 29 May 2004

On the front cover of the General Practice issue of the *BMJ* of 29 May 2004, we published a headline that wrongly said that soya may increase the risk of endometrial cancer. This is quite the reverse of the message of the paper by Wang Hong Xu and colleagues that this related to (pp 1285-8). The authors had found that soya intake is associated with a reduced risk of endometrial cancer.

Can the new "electronic highway" for the NHS have a smooth launch?

Some IT literate readers may have been confused by our description in this news article by Geoff Watts of the new national "N3" broadband network due to replace the existing NHSnet (15 May, p 1156). We said that N3 will be run by five local suppliers. This is wrong; N3 will be run by one "integrator," BT. The five local service providers will be responsible for delivering a full range of IT services to the NHS in a specified locality.

Spending on neglected diseases has increased, says report

In this news article by Fiona Fleck (22 May, p 1220), we summarised a report from the Global Forum for Health Research but inadvertently referred to the organisation as the Global Fund for Health Research.

What next for electronic communication and health care?

We gave the wrong journal title in reference 9 of this editorial by Alejandro R Jadad and Tony Delamothe (15 May, pp 1143-4). The correct reference is: Skinner H, Biscope S, Poland B, Goldberg E. How adolescents use technology for health information: implications for health professionals from focus group studies. *Journal of Medical Internet Research* 2003;5(4):e32. The full text is freely available at www.jmir.org/2003/4/e32/

Obituary: Jean Ginsburg

We wrongly stated in the obituary of Jean Ginsburg by Caroline Richmond (29 July, p 1321) that it was her daughter to whom she gave birth while doing circulation monitoring for research; it was in fact her younger son, Andy.