Psychological morbidity among emergency department doctors and nurses after the SARS outbreak

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**Objective:** To determine the psychological morbidity among emergency department (ED) doctors and nurses six months after the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak. **Methods:** During the SARS outbreak from 13 March to 31 May 2003, the study ED was designated as Singapore’s only screening centre for SARS and was closed to all other patients. A self-administered questionnaire survey was conducted in November 2003. Doctors and nurses of the study ED who had patient contact during the outbreak were included. Data collected were demographics and responses to (a) Impact of Event Scale (IES) and (b) General Health Questionnaire 28 (GHQ 28). Scores were assigned to the responses whereby an IES score ≥26/75 or a GHQ 28 score ≥5/28 was indicative of post-event and psychiatric morbidity respectively. **Results:** Thirty-eight out of 41 (92.7%) doctors and 58 out of 83 (69.9%) nurses responded. Fewer doctors reported post-event and psychiatric morbidity compared to nurses, with 5 (13.2%) doctors and 12 (20.7%) nurses scoring ≥26 on IES, 6 (15.8%) doctors and 12 (20.7%) nurses scoring ≥5 on GHQ 28. The doctors reported a median of 9.5 (range 0-47) on IES and 0 (range 0-11) on GHQ 28. The nurses reported a median of 15 (range 0-61) on IES and 1 (range 0-25) on GHQ 28. **Conclusions:** Six months after SARS, the rates of post-event and psychiatric morbidity were relatively low among the study ED doctors and nurses. The results might have underestimated actual morbidity as the study was conducted six months after the outbreak. (Hong Kong j. emerg. med. 2005;12:215-223)
Keywords: Health personnel, psychological stress, Severe Acute Respiratory Syndrome

Introduction

Background
In Singapore, the Severe Acute Respiratory Syndrome (SARS) outbreak lasted 80 days from mid-March 2003 till 31 May 2003 when Singapore was removed from the World Health Organization (WHO) list of SARS affected areas. During the outbreak, the Singapore Ministry of Health (MOH) adopted a national strategy to control the outbreak expediently by centralising all SARS cases at the study hospital and closing the hospital to all non-SARS patients to free up resources to care for SARS patients. The decision to centralise all SARS cases in the study hospital and to close it to all non-SARS patients was unprecedented in the history of health care in Singapore.

In the emergency department (ED) of the study hospital, the macro decision by MOH brought about drastic changes in the work of the doctors and nurses. Overnight, the health care workers (HCW) of the study ED became the nation's front-liners in the battle against SARS, doing work and facing risks that were different from those of HCW in the rest of the hospital and in the ED of the other five public hospitals.

Importance
Studies published thus far reporting on the psychological impact of the SARS outbreak on HCW were cross-sectional, and included many different job categories of HCW e.g. doctors, nurses and ancillary workers. Four qualitative studies identified recurring themes common to HCW in Singapore and Toronto: fear of contagion, fear of infecting others, mortality concerns and death, stigmatisation and discrimination; uncertainty, disruption and frustration; conflict, balance and sense of duty to care for patients and sick colleagues.

The quantitative studies conducted in Toronto, Hong Kong, Taiwan and Singapore used different instruments to measure stress and psychiatric morbidity in HCW. Using the General Health Questionnaire 12 (GHQ 12), Nickell et al reported a psychiatric morbidity rate of 29% amongst staff in a Toronto hospital. Using the Impact of Event Scale (IES), Maunder reported that 36% of 1,557 Toronto HCW had traumatic stress when a cut-off score of 20 on the IES was utilised. Chua et al reported that Hong Kong HCW who worked in SARS units and healthy controls had increased stress level as measured by the Perceived Stress Scale, but the stress level was equally increased. Poon et al used the State-Trait Anxiety Inventory to measure anxiety level among Hong Kong HCW who had contact with SARS patients and those without such contact. They reported increased anxiety level among those with contact, and workmen, health care assistants and nurses reported higher levels compared to other HCW.

From Taiwan, Chong et al used the Chinese Health Questionnaire and reported psychiatric morbidity among 75% of 1,257 HCW. Two studies reported the psychological impact of SARS on Singapore HCW. Using the General Health Questionnaire 28 (GHQ 28) Chan and Huak reported psychiatric morbidity of 27% amongst 661 HCW in a non-SARS Singapore hospital in a survey two months after the outbreak. In another study conducted around the same time, also using the GHQ 28, Sim et al reported a psychiatric morbidity of 20.6% and a post-traumatic morbidity of 9.4% on the Revised Version of Impact of Event Scale (IES-R) among 277 Singapore HCW from primary health care.

Objectives of this investigation
To our knowledge, there has not been a report