Response of Undergraduate Medical Students to SARS

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Sir,

During last year's SARS epidemic where Malaysia was spared[1], we conducted a questionnaire study on medical students of a private medical university in Malaysia in order to better understand their responses to the SARS epidemic, particularly in the face of uninterrupted ward teaching in Seremban Hospital - a government designated SARS hospital where potential SARS cases referred from other healthcare institutions in the state were assessed. This two-week study (between 12 to 23 May, 2003) was carried out into the third week after Malaysia reported its first SARS-related death patient, and compared the levels of knowledge and anxiety between junior (Phase I) and senior (Phase II) students. The medical curriculum of this university requires that the students be exposed to hospital bedside teaching from first year (Phase I), and the degree of such exposure increases exponentially from the third year (Phase II) onwards.

Ninety-one Phase I (Mean ± SD age: 21 ± 0.9 years old; 42% male) and 104 Phase II (Mean ± SD age: 23 ± 0.9 years old; 38% male) students satisfactorily completed the questionnaires in an anonymous fashion. Majority in both groups had their primary source of information from newspaper, mostly English-based. Over ninety percent of students in both groups were correct in their answers to questions on SARS based on the current understanding at that time (Table I). However, the mean anxiety scores (between 1 and 4, higher values correlated with greater anxiety; scores ≤ 2 are considered as appropriate responses) based on questions relating to anxiety during attendance to ward service and teaching (2.40 vs 1.56); individual protection against risk of contracting SARS in open ward (2.00 vs 1.49), and meeting people who cough in public places (2.09 vs 1.81), were significantly higher in Phase I than in Phase II students, and were generally considered inappropriate (Figure 1). The anxiety scores with regards to the perception of SARS epidemic in future were inappropriate in both groups (2.56 vs 2.51).

We concluded that Phase I students manifested greater degree of anxiety compared to their seniors (Phase II) despite the fact that the time spent in hospital wards were considerably greater in the latter group. Lack of knowledge was not a factor since both groups were equally knowledgeable. The most likely explanation was simply the fact that Phase II students, by having more contact with the hospital, clinical lecturers and medical staff, had a more realistic assessment of the SARS risk, and had probably observed first hand the stringent measures put in place for the screening and isolation of suspected SARS patients. Furthermore, the maturity of Phase II students in medical knowledge and as an individual, compared to Phase I, might play some role in avoiding excessive anxiety in time such as this. Our novel findings imply that there is a need to address the anxiety status among medical students that goes beyond the imparting of factual knowledge. The training needs between the junior and senior students may require to be probed into separately in the overall effort to improve the teaching of undergraduate medical students[2,3].

Table I: Knowledge on SARS in Phase 1 and II medical students

Correct answers on:	Total	Phase 1	Phase II	p
Primary microbial agent	96.5	97.8	95.6	0.541
Primary mode of transmission	99.5	100.0	99.1	0.112
Best-recognized clinical presentation	99.5	100.0	99.1	0.368
Recommended 'standard' treatment	96.5	94.4	98.2	0.123
Countries with high local transmission	99.0	100.0	98.2	0.443
Effective individual protection against virus transmission	96.1	98.9	93.8	0.148

Values are percentages unless otherwise stated.

Figure 1: Anxiety scoring in Phase I and II medical students

Symbols and bars represent mean and standard error. Anxiety scores ≤ 2 are considered as appropriate.
*** indicates $p \leq 0.001$ (two-tailed unpaired t tests)

A= Attending ward service and teaching
B= Protecting against risk in open ward
C= Meeting people coughing in public
D= Perceiving the SARS epidermic in future
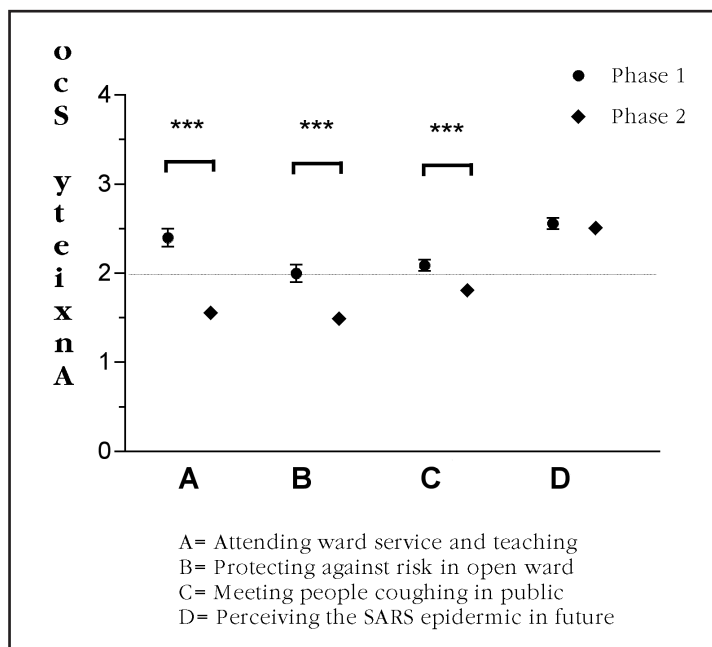
References

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3. Clark J. Fear of SARS thwarts medical education in Toronto. Br Med J 2003; 326: 784.