Abstract

Background Achieving the WHO goal of a 25% reduction in premature mortality from non-communicable diseases (NCDs) by 2025 requires effective action by health-care providers. Medical students, as future health-care providers and the main human resource to achieve such targets, should prepare themselves to implement preventive strategies. This study aims to investigate whether medical students from China, the USA, and Australia had equipped themselves to providing counselling on NCD prevention and lifestyle modification.

Methods This is a cross-sectional study of students from seven medical schools: one in the USA, one in Australia, and five in China. We recruited medical students at the second, fourth, and seventh year of medical education in China, at any of the first four education years in Australia, and at any year of medical school in the USA to participate in the study. Participants were asked to complete an online questionnaire about their attitude to and, confidence in, counselling on the prevention of NCD risk factors, and the relevant training that they have received. The questionnaire was designed in English and translated into Chinese where necessary. We used descriptive analysis and logistic regression to interpret the data.

Findings Of the 2920 medical students invited to participate, 2078 students responded (response rate 71.3%; 927 male students [44.6%]; mean age 23.2 years [SD 2.7 years]) from five medical schools in China (n=1656), Duke University (233), and University of Queensland (189). Although 1918 (92.3%) medical students agreed that physicians have a responsibility to promote NCD prevention, fewer than half the students were highly confident that they could provide preventive counselling on healthy diet (n=750, 36.1%), physical activity (826, 39.8%), alcohol use (934, 44.9%), and smoking cessation (1107, 52.9%). Overall, 39.4% of respondents (819) reported that they had received training on NCD risk factors (42.3% from the University of Queensland, 37.8% from Duke University, and 39.3% from the Chinese medical schools), which was significantly associated with students’ confidence in providing counselling on diet (OR 3.55, 95% CI 2.59–4.87; p<0.0001), exercise (4.92, 3.60–6.73; p<0.0001), alcohol (4.62, 3.51–6.08; p<0.0001), and smoking (5.83, 4.48–7.58; p<0.0001). Results did not vary greatly between the three countries. Most (1699, 81.7%) respondents thought that more training in health education and preventive counselling would be needed.

Interpretation Medical schools should provide more training on counselling on the prevention of NCDs to give future health-care providers the ability and confidence to fight the increasing burden of such diseases.

Funding China International Center for Chronic Disease Prevention funded by the NHLBI/NIH and UnitedHealth Group (USA).

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Declaration of interests
We declare no competing interests.