

Clinician's Commentary on Li et al.¹

Among the G8 countries, Canada is home to the highest proportion of foreign-born residents, who constitute approximately 20% of the population and live primarily in urban areas.² The proportion of Asian and Middle Eastern immigrants in Canada has seen considerable growth over the last four decades, increasing from a reported 8.5% in the 1970s to 60% in 2011. At approximately 1.3 million, Chinese Canadians are the country's second-largest visible minority group; only the South Asian population is larger.²

Despite the significant growth of the Chinese immigrant population, however, research exploring the influence of Chinese culture and health behaviours has been extremely limited.³ Similarly, there has been limited acceptance or integration of traditional Chinese health practices into Western medicine.³ Canada's health care system has historically been medically oriented and focused on acute disease management.⁴ With an ageing population, however, demand is shifting toward chronic disease management; because our health system is poorly equipped to cope with this shift, many people with chronic illnesses do not receive appropriate and effective care.⁴

Although stroke, a chronic illness, is the leading cause of long-term disability in Canada,⁵ cerebrovascular disease is much more widespread in East Asian populations, likely because of greater dietary salt intake and the resulting uncontrolled hypertension.⁶ As the population ages over the next two decades, the incidence of stroke—and thus the number of adults with disabilities—will only increase.⁷ Of those who experience a stroke, 75% will have a residual disability, and 40% of these will have moderate to severe impairments⁸ that result in significant personal, financial, and economic costs.

Stroke, like many chronic illnesses, is treatable and preventable, which suggests that greater emphasis should be placed on developing healthy lifestyles.⁷ Canada needs not only to change systems of care to accommodate the changing face of illness but also to recognize how the intersection and interaction of chronic illness management with our significant ethnic diversity will affect the lives of all Canadians. Li and colleagues thus raise an important question when they examine how culture influences the uptake of health care education among Chinese Canadians (CCs).¹

A recent publication by Teoh and colleagues (2013),⁹ who investigated the identification and management of patients at elevated cardiometabolic risk (CMR) in Canadian primary care, is not only sobering reading but highlights a lack of knowledge relating to ethnicity. The authors were not able to account for ethnic differences, as ethnicity was identified as missing data in 63% of practices surveyed, primarily primary care teams (PCTs). This lack of data is disturbing, given that patient information in PCTs is more likely to be collected using electronic medical records (EMRs),⁹ which means that collection of data on ethnicity could easily be mandated. This information could prove very useful and important in retrospective studies.

Of the 2,461 patient assessments examined by Teoh and colleagues, almost 60% included a diagnosis of dyslipidemia, more than 50% had type 2 diabetes, and more than 66% had hypertension.⁹ While these figures are alarming for Caucasians, the corresponding numbers for CCs are even more alarming: Li

and colleagues found that CCs had a slightly higher incidence of diabetes and almost twice the incidence of high blood cholesterol. Teoh and colleagues also found that of the group of patients with significant risk factors (dyslipidemia, type 2 diabetes, hypertension), 85% had a body mass index (BMI) of $\geq 25\text{kg/m}^2$, which is considered overweight ("normal" BMI is considered to be between 18.5 and 24.9 kg/m^2). Interestingly, epidemiological studies report that Asian people tend to have relatively higher total body fat content and abdominal fat distribution than Caucasians; therefore, the suggested "normal" BMI for Asians is $< 23\text{kg/m}^2$.⁶ Although Asian diets are typically lower in animal protein and have a higher total carbohydrate intake and lower fat intake than Western diets,⁶ it is possible that as CCs assimilate into a Western culture, they consume higher amounts of saturated fats, animal protein, and sugar, which, combined with their culturally higher salt intake, places them at even greater cardiovascular risk. The literature also suggests a positive correlation between increasing CMR factors and increasing urban living,⁹ also a factor of immigration.¹

Even though the "2012 Update of the Canadian Cardiovascular Society Guidelines for the Diagnosis and Treatment of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult" emphasizes the importance of managing health behaviours such as diet and exercise, in particular to reduce the risk of developing diabetes,¹⁰ Teoh and colleagues found that few patients were counselled on these benefits, while many received drug therapy.⁹ This is surprising, as several of the PCTs in this study included diabetes educators and dietitians.⁹ In addition, the Canadian Cardiovascular Society guidelines identify only South Asians and First Nations, not Chinese, as being at increased cardiovascular risk.¹⁰

The significant gap in knowledge and awareness of patient diversity with respect to CMR factors is illustrated by Teoh and colleagues;⁹ it is this issue that Li and colleagues seek to address. While clinical practice guidelines emphasize the need for assessment to take ethnic-dependent parameters into account, and the Chinese population is a rapidly growing "at risk" population,⁹ the juxtaposition between traditional Chinese medicine and Western medicine, combined with cultural differences that influence health behaviours, has meant that health services and health research for a significant proportion of the Canadian population receive little to no attention.³ Many foreign-born Chinese immigrants maintain their Chinese cultural beliefs and health practices and may therefore limit their exposure to Western health practices.³ Li and colleagues' study supports this claim.

Poor patient compliance continues to be cited as the primary barrier to the treatment and management of cardiovascular disease.¹⁰ However, the findings of both Teoh and colleagues⁹ and Li and colleagues¹ suggest otherwise. Raising awareness of important cultural differences and of how different ethnic groups seek health information is key to successful patient knowledge-translation strategies. Although discussion between patients and their primary health care providers is seen as essential to improving patient understanding, and thus to increasing compliance,¹⁰ this assumes that such a relationship exists, which may not be the case for members of minority ethnic groups in

Canada. Likewise, the impact of a patient encounter sheet to facilitate assessment of CMR factors during visits to a doctor's office¹¹ will likely be limited for CCs. Novel strategies that seek to disseminate health information through community groups may be a more successful approach to reach CCs.

Clearly there is still much work to be done, including identifying whether socio-economic factors such as level of education, income, and vocation also contribute to the uptake of health care education independent of cultural background.

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