### Letters to the Editor

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## Diabetes mellitus in Saudi Arabia: A major public health concern

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Dear Editor,

In 2013, it was estimated that approximately 382 million people worldwide had diabetes mellitus—both type 1 and type 2 diabetes (T2D). This number is predicted to increase to 592 million by 2035. In Saudi Arabia, the prevalence of diabetes mellitus is estimated at approximately 24 per cent among Saudi adults. This is approximately three times higher than the global prevalence (8.3 per cent) and puts Saudi Arabia in the top 10 countries in terms of prevalence of diabetes. Moreover, the current high obesity and smoking prevalence trends among Saudi adults are expected to increase type 2 diabetes to 44 per cent by 2022. In addition to the increased morbidity and mortality risk, T2D among the Saudi population causes an economic burden on the healthcare system by increasing the healthcare use and associated costs. Moreover, and suppose the saudi population causes and saudi adults are expected to increase type 2 diabetes to 44 per cent by 2022. In addition to the increased morbidity and mortality risk, T2D among the Saudi population causes an economic burden on the healthcare system by increasing the

The specific reasons behind this high disease burden in Saudi Arabia are yet to be explored and determined. However, traditional risk factors such as obesity, sedentary lifestyle, smoking, and hypertension were reported to be very prevalent in the Saudi population.<sup>3,5,6</sup> Moreover, the tremendous surge in socioeconomic growth over the last few decades probably contributed to unhealthy dietary habits. In addition to the consumption of high-calorie traditional food (e.g., dates), excessive consumption of high calorie and fat diets (e.g., fast food) is very common in Saudi Arabia.<sup>6</sup> Moreover, the management of diabetes and its risk factors is still suboptimal.<sup>7</sup>

Given the rapid increase in the prevalence of diabetes in Saudi Arabia, it is vital that future national efforts concentrate not only on treatment but also on prevention. In the medical literature, it is reported that Saudi patients

had poor knowledge of diabetes.8 Moreover, it is reported that physicians at primary care centres have suboptimal awareness of proper diabetes management.9 In fact, awareness programmes in primary care centres and in the community are essential to achieve control and prevention of diabetes mellitus in the Saudi population. The role of primary healthcare centres and outpatient clinics is critical to improving awareness in patients and their families. It was evident in the literature that diabetes education programmes among Saudi patients were associated with better outcomes on dietary control, physical exercise, glucose self-monitoring, adherence to medications, and HbA1c level. 10 Moreover, educating patients with diabetes as part of an integrated programme in the primary care setting has been associated with improved diabetes management.<sup>11</sup>

At the level of disease prevention, increasing public awareness about diabetes and its associated risk factors such as obesity and lack of exercise is important and can support current institutional efforts (e.g., primary care centres). This can be achieved through collaborative work from all stakeholders such as the Ministry of Health (MOH) and universities in several ways including publication of small Arabic booklets in plain language, discussions, lectures, advertisements on public television, articles in newspapers, inclusion of information about diabetes mellitus in school curricula, and public lectures.

At the level of disease management, a multidisciplinary team approach for diabetes management has been shown to be successful in improving diabetic care for primary care patients. Primary care doctors, clinical pharmacists, community pharmacists, and nurses can play a major role in educating their patients by emphasising the importance of dietary intervention, exercise, weight control, and compliance with drug therapy.

In conclusion, to combat the increasing prevalence of diabetes in Saudi Arabia, there is now an urgent need for a national level long-term plan focusing on prevention, education, and a multidisciplinary approach. Additionally, these healthcare services should be monitored and evaluated to ensure their effective role in reducing the burden of diabetes.

Sincerely,

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# Feasibility of using the Short Message Service in health services: Is the real use possible?

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Dear Editor,

We read with interest the report "A study to assess the feasibility of text messaging service in delivering maternal and child healthcare messages in a rural area of Tamil Nadu India" by Datta et al. <sup>1</sup> The study was conducted in rural areas to assess the usability of short messages services (SMS) in increasing people's knowledge about maternal and child health. Approximately 70 per cent of the study participants self-reported the ability to read a mobile SMS, and another 52.5 per cent reported the ability to type and send SMS. Also, a large percentage (98.33 per cent) stated that mobile SMS has an effective potential in spreading health messages.<sup>1</sup>

In another study by Munro et al., investigation was made of the knowledge and skill of traditional obstetricians in seven focus areas. This included primary areas such as the abilities to create and to send the SMS independently. The study population was reported to benefit adequately from the noted basic knowledge and skills, but had some problems in applying the more complex mobile-based features. It was concluded, however, that such abilities have a great role in the successful use of SMS in healthcare delivery.<sup>2</sup>

A study was conducted in Iran to investigate the application of mobile phones in self-management of asthma. It was found that in such medical processes, compared to patients, their protectors were more trainable in the education of using Peak Flow Meter, and in following up via SMS.<sup>3</sup>

As discussed in a review by Fayaz-Bakhsh, in addition to such uses of mobile-based services in medicine, the application of cell-phone technology in health services, and more specifically in public health services is becoming of vital and increasing importance. Anonetheless, this would impose some other requirements such as ensuring that larger numbers of people in different communities have the ability to use SMS for health purposes more effectively. Datta et al. could do better in that line, as their outcome seems to have been considerably influenced by around the 30 per cent who were unable to read SMS, as well as by about 47 per cent of participants who were unable to type and send an SMS.

Furthermore, to achieve this aim of extending effective application of mobile for public health purposes, especially in rural regions of developing countries, other influencing factors should also be considered such as technical, telecommunications, and security factors. Furthermore, the target population's level of influence should be assessed. The more influential factors should be improved.

### Sincerely,

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