

Diabetes mellitus in Pakistan: A major public health concern

Dear Editor,

Diabetes Mellitus (DM) is one of the most prevalent diseases worldwide with an increasing incidence.^[1] As a leading cause of morbidity and mortality, it poses an enormous challenge to public health. Reaching epidemic proportions globally, it has emerged as a great socioeconomic burden for the developing world. There is a significant rise in the prevalence of this illness over the past two decades is cause for alarm.^[2]

According to the current statistics of the International Diabetes Federation (IDF), it has been projected that approximately 1 in 11 adults (415 million) has diabetes and is expected to reach 1 in 10 adults (642 million) by 2040.^[3] Statistically, the prevalence of DM in Pakistan is high; ranging from 7.6% (5.2 million populace) to 11% in 2011, it is estimated to reach 15% (14 million) by 2030. This places Pakistan at number 7 in the list of countries with a prevalence of DM, and, if the present situation continues, is expected to move to 4th Place. This concerning position presents a challenge for health care professionals and health care policy makers in Pakistan.^[2,4]

According to various population-based studies and national surveys, the overall ratio of DM is about 22.04% in urban and 17.15% in rural areas. The pattern of DM prevalence is as follows: Punjab; male, 16.6%, female, 19.3%, Khyber PakhtunKhwa; 11.1% both sexes, Balochistan; 10.8% both sexes, Sindh; male 16.2% female 11.7% as shown in Figure 1.^[4]

Globally, diabetes imposes a large economic burden on individuals and national healthcare systems. Diabetes is the fourth leading cause of death in most developed nations. A significant epidemic of diabetes is present in the South Asian region, with a rapid increase in the prevalence over the last two decades, it is the second most populous IDF region after the Western Pacific Region. Notably, all of the countries in this region have been classified by the World Bank as low- or middle-income in 2015, experiencing an annual economic growth of over 3.5% during this year.^[3,5]

The prevalence of both Type 1 and Type 2 DM (T2DM) is increasing worldwide, but the

prevalence of Type 2 is rising much more rapidly.^[2] The alarming increase of the prevalence of diabetes is predicted to occur due to heavy urbanization in association with unhealthy lifestyles, maternal and fetal malnutrition and genetic factors. Reduced physical activity is another risk factor for the incidence of DM. Other risk factors for the increased incidence of DM include obesity along with high-caloric intake, which played a major role in the recent explosion of this chronic illness.^[6,7] Moreover, the current high obesity and smoking trends among Pakistani adults are expected to increase its prevalence. The exact causes responsible for this incidence of DM in Pakistan are yet to be determined. However, some studies suggest that the high environmental pollution, unhealthy dietary habits, consumption of high-caloric traditional food, and high fat diets which are common in Pakistan, likely contribute to the incidence of DM. Furthermore, the management of diabetes and its risk factors are still suboptimal.^[8,9]

DM is one of the most important causes of premature illness and deaths globally, due to its relation with cardiovascular diseases. It has also been listed among the leading causes for blindness and renal failure.^[10] Poor glycemic control leads to diabetic foot, and eventually amputation. Unfortunately, the economic burden of this disease and its complications is raising the overall healthcare expenditures. Moreover, the early presentation of this chronic disease extends the burden to an even younger age group. In essence, leading to further financial burdens.^[11,12] Additional to the increased morbidity and mortality risk, T2DM among the Pakistani population causes an economic overload on the healthcare system by increasing the healthcare use and associated costs.^[2,8]

The Pakistani health care system is under resourced and overburdened, this, along with organization mismanagement renders it inefficient. Given the rapid increase in the prevalence of diabetes in Pakistan, it is vital that future national efforts concentrate not only on treatment but more on prevention. Awareness in this regard is crucial as it is reported that patients generally have poor knowledge of DM.^[13,14] For disease prevention, aggressive promotion of public awareness about diabetes and its associated risk factors, such as obesity and lack of exercise is important. This can be achieved in several ways including: Publication of easily understandable booklets in regional languages, advertisements on

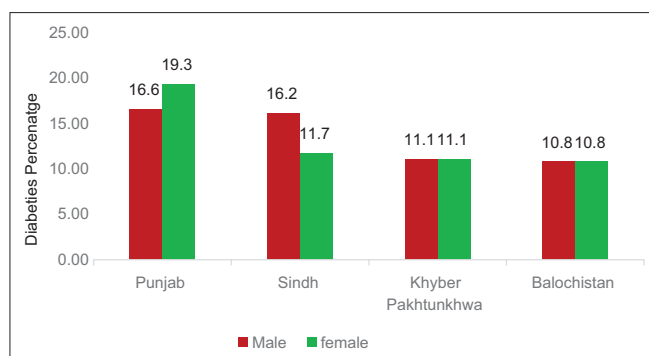


Figure 1: Adopted under the terms of creative commons attribution license

public television, publications in newspapers and on social media, and public discussions/lectures. Awareness programs in primary care centers and in the community are essential to achieve control and prevention of DM. The role of primary healthcare centers and outpatient clinics is critical to improving awareness in patients and their families. Diabetes self-management education has been found effective in improving the health status of diabetics with poor glycemic control. For disease management, a collaborative team approach has been shown to be successful in improving diabetic care for primary care patients. Primary care doctors, community pharmacists, and nurses can play a major role in educating their patients by emphasizing the importance of dietary intervention, exercise, weight control, and compliance with drug therapy.

DM is a rapidly growing health problem which needs conscious efforts and actions focused on health promotion and primary and secondary prevention. Planning/delivering preventive services aiming at early detection and modification of the associated factors for the development of diabetes complications remains the best available option to deal with this huge problem. Special attention should also be given to the role of diabetic awareness programs, community-based screening campaigns, and different educational health programs in reducing health problems caused by diabetes, which in the long run will help to reduce the burden and pervasiveness of this disease.

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Conflicts of interest

There are no conflicts of interest.

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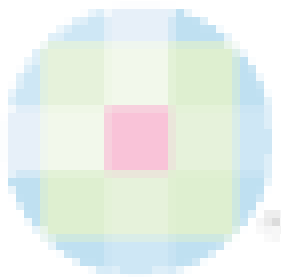
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