



Research Article

AN OVERVIEW OF THE PRESENT ISSUES WITH DIABETES CARE IN INDIA

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ABSTRACT

Diabetes is one of the largest global health emergencies of this century. Diabetes is a major global health concern that is rising in emerging nations like India due to bad lifestyle choices and the rising incidence of overweight and obesity. It may be difficult for patients to control their diabetes if they don't know enough about diabetes care. This is crucial since greater patient self-management skills are linked to more effective diabetes management. This article emphasizes the difficulties in managing diabetes while focusing on the health priority of diabetes care in India. Diabetes is a serious worry in India because of its startlingly high prevalence and expected rise in the future. Key challenges include lack of awareness among the population, poor diagnosis, limited access to quality care, medication adherence issues, and physicians' limited time and knowledge. A number of issues, including the expense of treatment and an inadequate healthcare infrastructure, make diagnosis and getting access to high-quality care difficult, especially in rural areas. Limited transportation alternatives, complicated treatment plans, and expensive charges all have a major impact on medication adherence. Time restrictions and deficiencies in knowledge affect how well diabetes is managed by healthcare personnel. Although these programs seek to enhance care, there hasn't been a thorough analysis of their efficacy. The issues facing diabetic treatment in India are emphasized in the conclusion, which also highlights the need for improved diagnosis and access to care, medicine low prices, greater training for healthcare professionals, and efficient policy implementation.

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INTRODUCTION

This century, one of the biggest worldwide health emergencies is diabetes. It is the most significant cause of morbidity and mortality, which increases up treatment, costs globally (Dal Canto et al., 2019). Over 6.7 million deaths worldwide occurred due to diabetes in 2021 alone. In 2021, there were an estimated 537 million individuals living with diabetes worldwide, according to the International Diabetes Federation (IDF). If effective preventive measures are not taken, this figure is expected to rise to 643 million by 2030. Over the past three decades, the prevalence of diabetes has gradually climbed in India and throughout the world, with India bearing a substantial share of the global burden. Due to an epidemiological shift, India's disease patterns have changed. While NCDs and

injuries have increased their contribution to overall disease burden and mortality, the mortality from communicable, maternal, neonatal, and nutritional diseases (CMNNDs) has decreased significantly. In 1990, CMNNDs accounted for 61% of India's total disability-adjusted life years (DALYs), followed by NCDs (30%) and injuries (9%). However, overall DALYs from CMNNDs have dropped to 33%, while those from NCDs and injuries have climbed to 55 and 12%, respectively, in 2016 as a result of significant epidemiological shifts that India has experienced over the years. When looking at the top individual causes of DALYs in India since 1990, most NCDs have grown in rank, with diabetes exhibiting a remarkable increase from 35th position in 1990 to 13th place in 2016 (ICMR, 2017). The disease burden, or DALY rate, for diabetes in India was four times higher in 2016.

LACK OF AWARENESS

It may be difficult for patients to control their diabetes if they don't know enough about diabetes care. This is critical since better diabetes control is correlated with increased patient self-management skills. Because there are less severe symptoms

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of the disease and fewer side effects from treatments, patients receiving aggressive care also have a reduced perceived quality of life. Patient adherence to medical guidance may be impacted by this (Venkataraman et al., 2009).

Effective diabetes management requires a thorough understanding of the disease and all of its consequences. Numerous research investigations examined the correlation between diabetes knowledge and the prevalence of undiagnosed diabetes in the Indian populace. Only 43.2% of people were aware of diabetes, according to the ICMR-INDIAB (Phase I) study, and rural residents' awareness was significantly lower than urban residents' (36.8% vs. 58.4%, $p < 0.001$) (Tripathy et al., 2019). A study conducted on 400 patients in Western India found that 9.4% of the population had an excellent understanding of diabetes, 71.3% had a moderate awareness, and 18.2% had a low awareness. A different survey conducted in South India found that 55.6% and 52.8% of respondents, respectively, had good awareness and a favorable attitude. According to Swaminathan et al. (2020), out of 25.4% of individuals with diabetes known to exist, only 40.7% possessed good knowledge, 53.8% had a positive attitude, and 57.6% had good practice patterns. According to a study by Deepa et al. (2014) that evaluated the rate of awareness of complications among PWD, 72.7% of people with diabetes and 51.5% of the general population were aware that diabetes can have an impact on other organs. Low socioeconomic status (SEP), as determined by work, income, and educational attainment, also raises the risk of diabetes, particularly type 2 diabetes. These studies emphasize how critical it is to raise diabetes awareness among PWD and the broader public, as well as the degree of knowledge on related comorbidities and management (Das et al., 2022).

LACK OF DIAGNOSIS AND POOR QUALITY OF HEALTHCARE

Diabetes management is difficult in India since it is difficult to get timely diagnosis and high-quality care. Many people go undetected, and those who do are frequently the ones who learn they have diabetes by chance during examinations or complications. Approximately 30% of cases in urban regions and more than 50% of cases in rural areas remain undiagnosed (Subramani et al., 2019). 50% of diabetics in rural areas had just received their diagnosis, according to another survey. In rural areas, the ratio of unknown-to-known diabetes is larger (3.3:1) than in urban areas (1.8:1). Treatment expenses, logistical difficulties, a lack of antidiabetic drugs, and an inadequate healthcare infrastructure are some of the factors causing the problem. A lack of insulin, which is essential for type 1 diabetes, could have disastrous effects (Beran et al., 2021). Initiated in 2010, the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) seeks to address non-communicable diseases (NCDs) by strengthening infrastructure, promoting health, and offering early diagnosis and treatment. Services, free diagnoses, and medications are provided by NCD cells and clinics. The issues with diabetes diagnosis and care access in India require further funding and program development. On the other hand, the programs' failure to conduct formative evaluations on a regular basis makes it challenging to determine their success rate over time (MHFW, 2023).

MEDICATION AND POOR ADHERENCE TO CARE

In patients with diabetes, there is a well-documented issue of inadequate adherence to medication. This lack of adherence has significant negative impacts on clinical outcomes for individuals with diabetes, leading to increased healthcare costs, complications, hospitalizations, and mortality rates (Polonsky et al., 2016). Inadequate adherence to treatment is a well-established problem among patients with diabetes. Clinical outcomes for people with diabetes are significantly impacted by this noncompliance, which raises healthcare expenses, complications, hospitalizations, and death rates (Polonsky et al., 2016). A number of factors have been identified as significant contributors to this issue, such as the high cost of medication, intricate treatment plans, restricted transportation options, lengthy wait times at pharmacies, patients' emotional health, and their misconceptions and fears regarding insulin and medication dependence. According to Basu et al. (2019), 69% of patients (259 out of 375) undergoing insulin therapy had inadequate glycemic control, and 17.6% of diabetic patients did not take their medications as prescribed. These results suggest that one important contributing factor to negative clinical outcomes is probably poor medication adherence (Das et al., 2022). An actual illustration of how non-adherence affects patients' health in India is the rise in diabetic complications like neuropathy. Apart from the well-known causes, traditional beliefs are a major contributing reason to low medicine compliance in India. For example, due to strongly set cultural beliefs, some people in rural areas may prefer Ayurvedic or homeopathic medicines for managing their diabetes. This choice may cause them to be reluctant to take traditional drugs, which could harm their general health in the long run by causing them to not follow recommended treatment regimens. The literature does not address the long-term effects of these conventional or alternative medicines, even though they might be helpful in controlling or preventing more issues, particularly in a setting with limited resources. This underscores the necessity of conducting additional study on the optimal application of cultural sensitivity to guarantee adherence to appropriate therapy and prevent problems (Samu et al., 2017).

PHYSICIANS WITH LIMITED TIME AND KNOWLEDGE

Significant problems with limited knowledge, poor adherence to established guidelines, time and facility constraints, and attitudes among healthcare personnel exist in India. According to Joshi et al. (2014), these elements have a part in the development of problems and poor blood glucose control. However, results from a survey of clinical diabetologists show that the main obstacles to implementing evidence-based management for diabetes are low physician awareness (22.7%), the inapplicability of Western guidelines to Indian cases (22.7%), and the cost of treatment (18.2%) (Geldsetzer et al., 2018). Additional barriers to health care efficiency include inadequate counseling, poor referrals to specialists like endocrinologists, and a disregard for evidence-based therapy. They may also be a factor in low patient compliance, which jeopardizes therapeutic efficacy and safety and may raise rates of morbidity and mortality. Further influencing the regulation of high-quality diabetes care in India is the fact that general practitioners are certified as diabetologists by less-than-

reputable universities and colleges, and there is no national qualification requirement for practice (Das et al., 2022).

NEED FOR TRAINED DOCTORS

Measuring and tracking important results of the Diabetes Self-control Education and Support is essential to ensuring proper diabetes control, according to the American Diabetes Association's guidelines. Health status, clinical results, quality of life, and self-management are some of these outcomes. All the same, the dearth of qualified diabetes educators in India not only makes it more difficult for doctors to teach patients, but it also makes type 2 diabetes mellitus more common and more common. Additionally, research has shown that dietitians are typically un-initiated with the particular procedures involved in finding, assessing, and synthesizing studies in order to create guidelines (Powers et al., 2017). Dietitians in India have inadequate knowledge of the processes that go into creating dietary guidelines. This can be attributed to a variety of complex reasons, including low resources and educational opportunities. In India, the majority of dietetics education programs focus on nutritional counseling, which is important but frequently ignores the thorough training necessary to effectively participate in the creation of evidence-based dietary guidelines. The unequal emphasis on education creates a natural barrier to dietitians' ability to actively contribute to the creation of dietary guidelines, especially those that are customized for the distinct healthcare environment and dietary choices of the Indian populace (Myers et al., 2017). Furthermore, the paucity of access to up-to-date guidelines and the essential resources for the development of such recommendations further hinder the dietitians' involvement in guideline development, creating a notable void in their capacity to contribute effectively. Thus, it becomes imperative to develop locally assessed dietary guidelines that are specifically adapted to the Indian population, as opposed to simply implementing guidelines based on research from different healthcare systems, cultures, and dietary practices. To address the many issues associated with managing diabetes in the Indian setting comprehensively and improve the standard of care, a customized strategy is necessary. The stark differences in funding for diabetes care in India present another major obstacle. The difference in knowledge of diabetes and its socioeconomic effects on people and the government is a contributing factor to this discrepancy (Gavaravarapu, 2019).

CONCLUSION

Diabetes is a significant health priority in India due to its large population and ongoing socioeconomic transitions. Diabetes care in India faces a number of obstacles, such as low diagnosis rates, a lack of awareness, difficulty accessing high-quality care, problems with medication adherence, and a shortage of time and expertise among doctors. With many diabetes cases going undetected, particularly in rural regions, diagnosis and access to high-quality care continue to be major problems. Costs of care, financial challenges, and a poor healthcare system are some of the variables that contribute to this problem. The issue of inadequate medication adherence among patients diagnosed with diabetes is a serious concern that is exacerbated by high medication costs, complicated treatment plans, and restricted transportation options. Additionally, the shortage of qualified healthcare professionals, such as diabetes educators

and dietitians, contributes to the rising incidence of diabetes and makes its management more difficult. In summary, a multimodal strategy is needed to address the problems with diabetes care in India, including better diagnosis and access to care, medication affordability, and improved knowledge and training of healthcare professionals.

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