Knowledge and attitude of rural diabetic population in the twenty-first century: Are we doing enough to spread public awareness?

Dear Editor,

Diabetes remains a major health problem, ahead of which lies the undetected and underdiagnosed multiorgan microangiopathic sequelae. In India, it is estimated that 50%–70% of diabetics have poor glycemic control, which increases the risk of systemic complications and morbidity due to sight-threatening retinopathy.[1–3]

The estimated median direct cost of diabetes is estimated to be ₹18,890 per annum, ranging from ₹999 to ₹1,09,344.[4] The rural population is less exposed to audio, visual, digital, and other mass media methods of public awareness. It is integral to realize the needs of this population specifically, as early detection can help to accentuate disease-related morbidity and expenditure.

Evaluating the existing voids in the prevalent public awareness and appraisal of patient attitude can help us understand the deficiencies in the existing awareness strategies. We conducted a questionnaire-based, cross-sectional study to understand the level of awareness regarding diabetes and diabetic retinopathy amongst the rural population. The study was conducted from January 1, 2020 to December 15, 2020. All diagnosed cases of diabetes (types I and II) aged more than 18 years and attending the medicine or ophthalmology out-patient department were included.

A 20-point questionnaire was prepared based on literature search of previous studies on a similar topic and necessary points relevant to the population under study were also added. The questionnaire was pretested on a representative sample of 30 patients and modified accordingly for a better understanding of the patients.

A total of 183 participants were included in the study. Baseline characteristics are shown in Table 1.

Table 1: Baseline Characteristics

Characteristics	Frequency	Percentage
Age		
<50	71	38.8
≥50	112	61.1
Gender		
Male	112	61
Female	71	39
Duration of diabetes		
<5 years	123	67.3
>5 years	60	32.7

Table 2: Knowledge, Attitude, and Practice among rural population

Characteristic	Number	Percentage
Blood sugar monitoring		
Less than monthly	45	24.6
Monthly	66	36
6-monthly	34	18.6
Yearly	9	5
No regular monitoring	8	4
No monitoring	21	11.5
Regular exercise		
Yes	47	26
No	136	74
Knowledge that diabetic retinopathy can lead to blindness		
Yes	45	25
Aware about diabetic retinopathy		
Males	128	69.6
Females	82	45.1
Ever undergone a diabetic retinopathy evaluation		
Yes	22	12

Only 110 (60%) of the total number of participants had some awareness regarding the possible risk of diabetic retinopathy.

For 67 (37%) participants, the major source of knowledge about diabetic retinopathy was derived from the primary treating physician, while for 21 (12%) it was from friends or relatives, and for 10 (6%) from television. One hundred thirty-six (74%) of the study population denied being explained about diabetic retinopathy by the primary treating physician.

Males (69.6%) were more aware of the possibility of the development of diabetic retinopathy than females (45.1%) (P = 0.004), yet were unaware that diabetic retinopathy could lead to irreversible blindness [Table 2].

In our study, newly diagnosed diabetics, females, and patients with low literacy had lesser knowledge and awareness about diabetic retinopathy. A significant percentage of the diabetic population was unaware of the implications of diabetic retinopathy and had never undergone screening for the same.

Rural-based public awareness programs need to strategize and focus on targeting newly diagnosed cases, females, and people with poor literacy to increase and spread awareness regarding irreversible vision loss due to unattended care to diabetics.

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Conflicts of interest

There are no conflicts of interest.

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References

1. Joshi SR, Saboo B, Vadivale M, Dani SI, Mithal A, Kaul U, *et al*. Prevalence of diagnosed and undiagnosed diabetes and hypertension in India – Results from the Screening India's Twin Epidemic (SITE) study. Diabetes Technol Ther 2012;14:8-15.
2. Venkataraman K, Kannan AT, Mohan V. Challenges in diabetes management with particular reference to India. Int J Diabetes Dev Ctries 2009;29:103-9.
3. Sen A, Pathak P, Shenoy P, Kohli GM, Bhatia P, Shetty S. Knowledge, attitude, and practice patterns and the purported reasons for delayed presentation of patients with sight-threatening diabetic retinopathy at a tertiary eyecare facility in Central India: A questionnaire-based study. Indian J Ophthalmol 2021;69:3118-22.
4. Oberoi S, Kansra P. Economic menace of diabetes in India: A systematic review. Int J Diabetes Dev Ctries 2020;40:464-75.

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