

ORIGINAL RESEARCH

ASSESSMENT OF KNOWLEDGE, AWARENESS AND PRACTICES AMONGST PATIENTS WITH DIABETIC RETINOPATHY**Garima Jindal**

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ABSTRACT

Background: Magnitude of blindness caused by diabetic retinopathy is increasing. The present study was conducted to assess knowledge, awareness and practices amongst patients with diabetic retinopathy.

Materials & Methods: 86 diabetic patients of both genders were selected and subjected to a questionnaire comprising of occupation, socioeconomic status, educational status, details of diabetes mellitus like duration, family history of diabetes etc

Results: Out of 86 patients, males were 50 and females were 36. Socio economic status was upper in 21, middle in 40 and lower in 25 cases. Educational status was uneducated in 20, high school in 36 and graduate in 30 cases. The difference was non- significant ($P > 0.05$). SES was upper in 9 in knowledge group and 12 in non- knowledge group, middle in 16 and 24 and lower in 10 and 15 in knowledge group and 12 in non- knowledge group respectively. Education level was uneducated in 7 and 13, upto high school in 12 and 24 and upto graduate level in 11 and 19 in knowledge group and 12 in non- knowledge group respectively. The difference was significant ($P < 0.05$). 26 in knowledge group and 20 in non- knowledge group had right attitude. The difference was non- significant ($P > 0.05$). 21 in knowledge group and 24 in non- knowledge group had practice of visiting ophthalmologist for eye check up. The difference was non- significant ($P > 0.05$).

Conclusion: The attitude and practice pattern of diabetic retinopathy was statistically significant in knowledge group compared to those who had no knowledge of diabetic retinopathy.

Key words: Diabetic retinopathy, Educational status, Knowledge

Introduction

Diabetic retinopathy constitutes 4.8% of the global causes for blindness with reported prevalence in India ranging from 7.3% to 25%. Diabetic retinopathy being a silent disease, early detection and timely intervention are important for its management. Despite the high literacy levels and various diabetes mellitus (DM)-related health, ocular complications due to DM were found to be on the rise.¹

Epidemiological study has proved that micro vascular complications such as diabetic retinopathy are linked to duration of diabetes.² Routine dilated fundus examination is recommended at the time of diagnosis of diabetes and then yearly review is required in all patients having type 2 diabetes mellitus.³ Awareness of importance of routine check-up for

the screening of diabetic retinopathy is poor even in developed countries and the situation is much worse in a developing country like India. Previous studies have shown that 63% of the rural diabetic population has not had an eye examination. Magnitude of blindness caused by diabetic retinopathy is increasing.⁴ There have been many studies done in other states in India to assess the knowledge and awareness on diabetes and diabetic retinopathy among patients with diabetic retinopathy, however very few studies assessed knowledge, awareness and practices amongst patients with diabetic retinopathy.^{5,6} The present study was conducted to assess knowledge, awareness and practices amongst patients with diabetic retinopathy.

Materials & Methods

The present study comprised of 86 diabetic patients of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. A questionnaire comprising of occupation, socioeconomic status, educational status, details of diabetes mellitus like duration, family history of diabetes etc. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

Results

Table I Distribution of patients

Total- 86		
Gender	Males	Females
Number	50	36

Table I shows that out of 86 patients, males were 50 and females were 36.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Socio economic status	Upper	21	0.87
	Middle	40	
	Lower	25	
Educational status	Uneducated	20	0.71
	High school	36	
	Graduate	30	

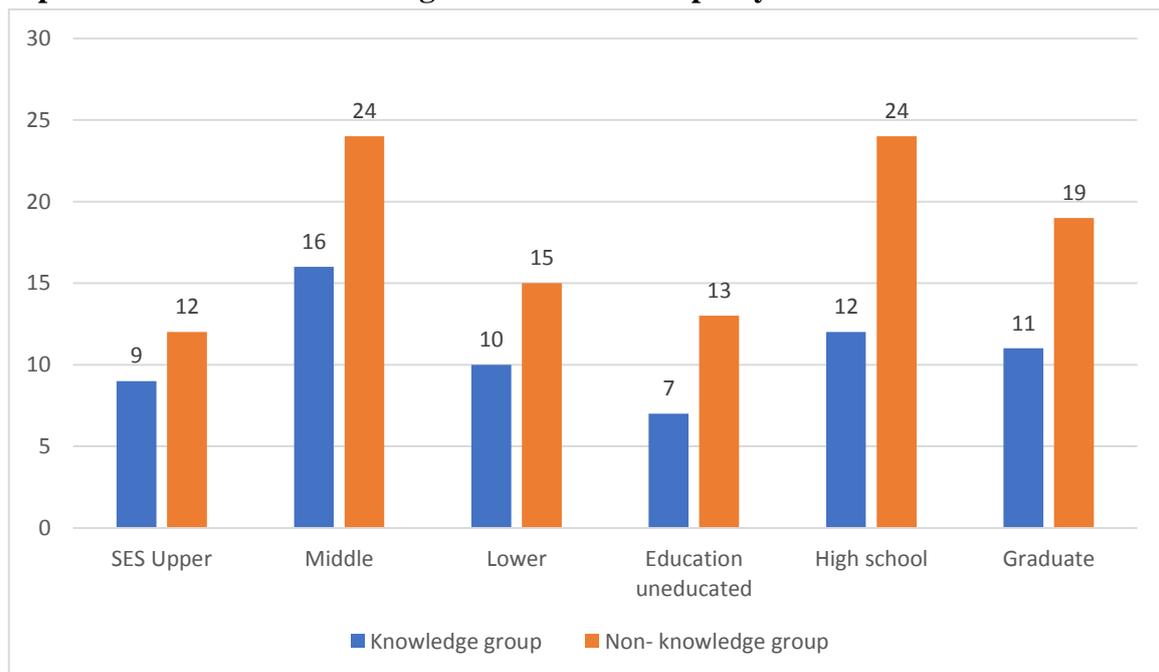
Table II shows that Socio economic status was upper in 21, middle in 40 and lower in 25 cases. Educational status was uneducated in 20, high school in 36 and graduate in 30 cases. The difference was non- significant ($P > 0.05$).

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Table III Assessment of knowledge of diabetic retinopathy

Parameters	Knowledge group	Non- knowledge group	P value
SES Upper	9	12	0.04
Middle	16	24	
Lower	10	15	
Education uneducated	7	13	0.02
High school	12	24	
Graduate	11	19	

Table III, graph I shows that SES was upper in 9 in knowledge group and 12 in non-knowledge group, middle in 16 and 24 and lower in 10 and 15 in knowledge group and 12 in non- knowledge group respectively. Education level was uneducated in 7 and 13, upto high school in 12 and 24 and upto graduate level in 11 and 19 in knowledge group and 12 in non-knowledge group respectively. The difference was significant ($P < 0.05$).

Graph I Assessment of knowledge of diabetic retinopathy**Table IV Association of knowledge of DR with attitude towards DR**

Attitude	Knowledge group	Non- knowledge group	P value
Yes	26	20	0.94
No	15	25	0.05

Table IV shows that 26 in knowledge group and 20 in non- knowledge group had right attitude. The difference was non- significant ($P > 0.05$).

Table V Association of knowledge of DR with practice regarding DR

Practice	Knowledge group	Non- knowledge group	P value
Yes	21	24	0.94
No	16	25	0.05

Table V shows that 21 in knowledge group and 24 in non- knowledge group had practice of visiting ophthalmologist for eye check up. The difference was non- significant ($P > 0.05$).

Discussion

It is well known that prolonged duration of disease results in various disease-associated complications mainly as a result of ignorance and poor disease control, thus contributing to the disease-related morbidity.⁷ Diabetic retinopathy is an upcoming cause of visual impairment and prevalence of diabetic retinopathy is more in developing countries.^{8,9} The present study was conducted to assess knowledge, awareness and practices amongst patients with diabetic retinopathy.

We found that out of 86 patients, males were 50 and females were 36. Kumar et al¹⁰ evaluated the awareness and practice about diabetic retinopathy among diabetic patients. Out of 400 patients 60% had no knowledge of diabetic retinopathy compared to 40% who had knowledge ($p < 0.001$). There was no significant association between duration of diabetes and knowledge of diabetic retinopathy. About 76.25 % of individuals in knowledge group had right attitude which was significantly higher than non knowledge group (45%).

We found that Socio economic status was upper in 21, middle in 40 and lower in 25 cases. Educational status was uneducated in 20, high school in 36 and graduate in 30 cases. Hussain R et al¹¹ assessed the knowledge and attitude toward DM and diabetic retinopathy of the general population. In this study, 6211 people (3528 [56.8%] women and 2683 [43.2%] men) with a mean age of 55.6 ± 11.7 years (range 21–98 years) were included. Good knowledge and positive attitude were observed in 3457 (55.6%) and 3280 (52.8%) people. Among 1538 (25.4%) people known to have DM, only 619 (40.7%) had good knowledge, 828 (53.8%) had a positive attitude, and 886 (57.6%) had good practice patterns. Although half of them followed general diabetic care, only 9.6% had undergone screening for retinopathy. Literacy showed a significant association with good KAP in general population and those with DM. Overall, women had significantly better knowledge.

We found that SES was upper in 9 in knowledge group and 12 in non- knowledge group, middle in 16 and 24 and lower in 10 and 15 in knowledge group and 12 in non- knowledge group respectively. Education level was uneducated in 7 and 13, upto high school in 12 and 24 and upto graduate level in 11 and 19 in knowledge group and 12 in non- knowledge group respectively. We found that 26 in knowledge group and 20 in non- knowledge group had right attitude. Namperumalsamy et al¹² observed that only 6.8% of the patients with DM had undergone dilated fundus evaluation before their screening project and only one fourth of the screened population with retinopathy returned for examination at the hospital.

We found that 21 in knowledge group and 24 in non- knowledge group had practice of visiting ophthalmologist for eye check up. Padmaja et al¹³ observed that 67% of the people in the rural areas and 25% in the urban areas had never been screened for diabetic retinopathy.

This highlights the fact that despite good knowledge and attitude, insufficient motivation of the patients with DM for evaluation and follow-ups is a potential barrier to improve their practice patterns. Srinivasan N K et al¹⁴ also found a statistically significant association between awareness of diabetic retinopathy and good practice patterns regarding retinopathy. The limitation the study is small sample size.

Conclusion

Authors found that the attitude and practice pattern of diabetic retinopathy was statistically significant in knowledge group compared to those who had no knowledge of diabetic retinopathy.

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