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A DESCRIPTIVE STUDY TO ASSESS KNOWLEDGE REGARDING DIABETIC RETINOPATHY AMONG PATIENTS WITH TYPE II DIABETES MELLITUS IN SELECTED COMMUNITY AREA, KOLLAM

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ABSTRACT

The research project undertaken was "A descriptive study to assess the knowledge regarding Diabetic Retinopathy among patients with Type II Diabetes Mellitus". The objective of the study was to assess the knowledge regarding diabetic retinopathy among patients with Type II Diabetes Mellitus in selected community area, Kollam and to find out the association between knowledge regarding diabetic retinopathy among patients with Type II Diabetes Mellitus and selected demographic variables such as age, sex ,education ,occupation ,type of family ,income of the family ,duration of diabetes and religion. Non experimental descriptive research design was adopted for this study. The study was conducted among 100 adults with the age group of 45 -65 years in selected areas of Pallithottam. The study sample was selected by convenience sampling technique. The tool used for the data collection consisted of demographic proforma and structured knowledge questionnaire. The analysis of the data was based on the objectives of the study using descriptive and inferential statistics. The findings of the present study revealed that 25% of diabetic patients had poor knowledge, 61% had average knowledge and 14% had good knowledge regarding diabetic retinopathy. Based on the findings the investigator has drawn implications which were of vital concern in the field of nursing practice, nursing education, nursing research, nursing administration for future development.

INTRODUCTION

Diabetic retinopathy (DR) is an occular consequence of diabetes that is still quite common and often severe. It is the leading cause of avoidable blindness in adults of working age. Diabetic retinopathy is the disease of retina caused by microangiopathy due to long term effect of diabetes leading to progressive damage of the retina and blindness.1 Diabetic retinopathy has long been recognized as a microvascular disease. Hyperglycemia is considered to play an important role in the pathogenesis of retinal microvascular damage. Multiple metabolic pathways have been implicated in hyperglycemia-induced vascular damage.2 Globally, the prevalence of diabetic retinopathy among diabetic patients is estimated to be 27.0%, which leads to 0.4 million blindness in the world.3 Over time, too much sugar in blood can lead to the blockage of the tiny blood vessels that nourish the retina, cutting of its blood supply.4 Poor control of blood sugar level, high blood pressure, stress, older age, genetics, family history of diabetes mellitus are some of the risk factors to develop diabetic retinopathy. Kerala is the diabetes capital of India with a prevalence of diabetes as high as 20% ─ double the national average of 8%.

NEED AND SIGNIFICANCE OF THIS STUDY

The effect of diabetic retinopathy on type II diabetic patients' quality of life has not been thoroughly studied. Furthermore, despite analyzing patient-reported outcomes, none of the instruments used in those studies such as visual function scales or generic health status questionnaires can be deemed sufficiently accurate to evaluate quality of life outcomes in patients with diabetes. The Diabetes Treatment Satisfaction Questionnaire (DTSQ) was used in a single study to determine patient satisfaction with photocoagulation treatment in patients with proliferative retinopathy or diabetic maculopathy. The study found high levels of satisfaction even in the absence of improvements in visual acuity. On the other hand, care should be taken when interpreting the findings reported in research about the precise effects of DR in individuals with type II diabetes. The utility of previous studies is limited by the coexistence of other advanced diabetic complications, small sample sizes, heterogeneous variable distribution, and joint analysis of results for patients with type I and type II diabetes. Using instruments specifically designed to assess these outcomes in diabetic patients, we have not found any studies in the literature that specifically examine the impact of retinopathy on quality of life and treatment satisfaction in type II diabetic patients without other advanced diabetic complications.15 Hence the need to conduct a health survey aiming to assess the knowledge regarding diabetic retinopathy among patients with Type II Diabetes Mellitus in selected community area, Kollam.

OBJECTIVES

- To assess the knowledge regarding diabetic retinopathy among patients with Type IIDiabetes Mellitus in selected community area, Kollam.
- To find out the association between knowledge regarding diabetic retinopathy amongpatients with Type II Diabetes Mellitus and selected demographic variables.

RESEARCH VARIABLES

Demographic Variables

In this study demographic variables are age, sex, education, economic status, duration ofdiabetes, type of family, occupation and religion..

SETTING OF THE STUDY

The study was conducted in Don Bosco A, Don Bosco B and Anugraha Nagar.

RESEARCH DESIGN

In this study, non-experimental descriptive research design was used.

SAMPLE SIZE

The sample selected for the study was 100 patients in age group of 45 – 65 years.

Section A :Demographic data was analyzed using `frequency and percentage'

It included age, sex, education, occupation, economic status, duration of diabetes, type of familyand religion.

Table :1 Frequency and percentage distribution of sample according to demographicvariables.

DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE (%)
AGE		
45-50	22	22
51-55	14	14
56-60	30	30
61-65	34	34
SEX		
Male	49	49
Female	51	51
EDUCATION		
Primary	95	95
Secondary	4	4
Higher secondary	1	1
Degree	0	0
OCCUPATION		
Government job	7	7
Self-employee	43	43
Un-employee	30	30
others	20	20
TYPE OF FAMILY		
Nuclear family	81	81
Joint family	16	16
Conjoint family	2	2
others	1	1
ECONOMIC STATUS		
Below 5000	94	94
5001-10000	6	6
10001-20000	0	0
Above 20000	0	0

DURATION OF DIABETES MELLITUS		
5 and below	68	68
5 - 9	12	12
10-14	13	13
15 and above	7	7
RELIGION		
Christian	97	97
Hindu	2	2
Muslim	1	1

Table 2: frequency and percentage distribution knowledge score regarding diabeticretinopathy.

RATING	SCORE	FREQUENCY	PERCENTAGE (%)
Excellent	16-20	0	0
Good	11–15	14	14
Average	6 –10	61	61
Poor	1 - 5	25	25

Data in **Table 2** shows that 14% of adults had good knowledge on diabetic retinopathy, 61% of adults hadaverage knowledge and 25% of adults had poor knowledge.

Table 3: Association between knowledge regarding Diabetic Retinopathy among patientwith Type II Diabetes Mellitus and demographic variables.

Sl. no	Variables	Knowledge				Df	Chi square value	Table value	Level of significance
		Excellent	Good	Average	Poor				
1	**Age**								
	45 - 50	0	2	15	5	9	2.14	16.92	NS
	51 - 55	0	2	7	5				
	56 - 60	0	5	19	6				
	61 - 65	0	5	20	9				
2	**Sex**								
	Male	0	7	29	13	3	0.12	7.82	NS
	Female	0	7	32	12				
3	**Education**								
	Primary	0	12	59	24	9	6.58	16.92	NS
	Secondary	0	1	2	1				
	Higher secondary	0	1	0	0				
	Degree	0	0	0	0				
4	**Occupation**								
	Government	0	2	3	2	9	6.74	16.92	NS
	Self-employee	0	7	27	9				

	Un-employee	0	2	22	6				
	Others	0	3	9	8				
5	**Type of family**								
	Nuclear	0	9	51	21	9	9.44	16.92	NS
	Joint family	0	4	8	4				
	Conjoint family	0	0	2	0				
	Others	0	1	0	0				
6	**Economic status**								
	Below 5000	0	12	58	24	9	1.99	16.92	NS
	5000-10000	0	2	3	1				
	10001-20000	0	0	0	0				
	Above 20000	0	0	0	0				
7	**Duration of diabetes**								
	5 and below	0	10	45	13	9	7.61	16.92	NS
	6 – 9	0	1	6	5				
	10 – 14	0	1	6	6				
	15 and above	0	2	4	1				
8	**Religion**								
	Christian	0	13	60	24	6	4.11	12.59	NS
	Hindu	0	1	0	1				
	Muslim	0	0	1	0				

NS – Non significant

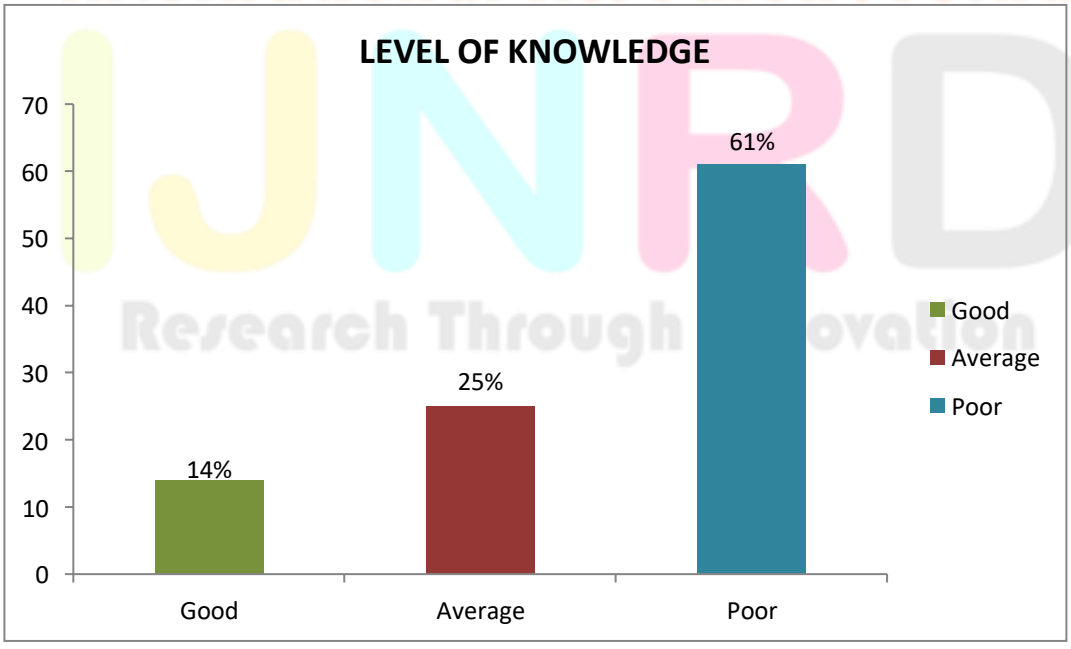

Figure shows that 25% of diabetic patients had poor knowledge, 61% had average knowledgeand 14% had good knowledge regarding diabetic retinopathy.

CONCLUSION

The present study was conducted to assess the knowledge regarding diabetic retinopathy among patients with Type II Diabetes Mellitus in selected community area, Kollam. The study result showed that 25% of diabetic patients had poor knowledge, 61% had average knowledge and 14% had good knowledge regarding diabetic retinopathy. It also showed that there was no significant association between knowledge and demographic variables such as age, sex, education, occupation, type of family, economic status, duration of diabetes mellitus and religion.

NURSING PRACTICE

- Educating and creating awareness is an integral part of the nursing service. Nurses can educate the patients regarding diabetic retinopathy.

NURSING EDUCATION

- The nurse educators can organize awareness programme for students regarding the diabetic retinopathy.
- The nurse educators can encourage the staff nurses and student nurses to conduct health education programme regarding diabetic retinopathy.
- Nurse educator can encourage the nursing students for the effective utilization of evidence based practice.Seminars, workshops, conferences should be organized in nursing institutions and educational institutions to improve their knowledge regarding reproductive health.

RECOMMENDATIONS

Based on the findings of the study, it is recommended that:

- Similar study can be replicated with a large sample to generalize the findings.
- Similar study can be conducted to assess practice of diabetic patients regarding diabeticretinopathy.
- A seminar or webinar can be conducted on a large group of sample to create publicawareness regarding diabetic retinopathy.

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