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Knowledge about Diabetes and Diabetic Retinopathy among undergraduate students in a Government Medical College

Community Medicine

KEYWORDS: Diabetic retinopathy, Knowledge, attitude, practice study.

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ABSTRACT

Non communicable diseases share four main behavioural risk factors namely tobacco use, harmful use of alcohol, insufficient physical activity and unhealthy diet all of which will escalate in developing countries . The relationship between the behavioral risk factors and health and social outcomes is multidimensional. As our Nation is in the second position of Diabetes in the World ,this study appears to be relevant since the undergraduates are the one who is treating the disease in the community and hospital .

Objective :To assess the knowledge about Diabetes and Diabetic Retinopathy among undergraduate medical students in a government medical college.

Material and methods:

The present study is a Knowledge, attitude and practice study conducted among undergraduates. Results were analyzed as strongly agree,agree,disagree, strongly disagree. Data was entered using Microsoft excel and analyzed using SPSS 16. Frequency distribution tables made accordingly.

Introduction:

Non communicable diseases are also referred to as chronic diseases are the leading cause of death worldwide. In 2008, eighty percent of non-communicable diseases deaths were in developing countries up from 40% in 1990 Non-communicable diseases will steadily increase the number of healthy years lost (Disability Adjusted Life Years-DALY) in middle income countries but the loss will increase very quickly in low income countries. By 2030 low income countries will have eight times more deaths attributed to Non communicable diseases than high income countries DALY is defined as a measure of burden of disease in a defined population and effectiveness of the interventions. One DALY is one lost year of healthy life. DALYs express years of life lost to premature death and years lived with disability adjusted for the severity of the disability.

Non communicable diseases share four main behavioural risk factors namely tobacco use, harmful use of alcohol, insufficient physical activity and unhealthy diet all of which will escalate in developing countries . The relationship between the behavioral risk factors and health and social outcomes is multidimensional. Consumption of fruits and vegetables reduces the risk of NCDs, like cancers and cardiovascular diseases. Low consumption of fruit and vegetables has been identified as a risk factor in the development of a range of chronic diseases, including coronary heart disease, stroke and many forms of cancer . Previous studies have proved that microvascular complications of diabetes like Diabetic Retinopathy are directly related to the duration of disease. As our Nation is in the second position of Diabetes in the World ,this study appears to be relevant since the undergraduates are the one who is treating the disease in the community and hospital.

Objective:

To assess the knowledge about Diabetes and Diabetic Retinopathy among undergraduate medical students in a government medical college.

Methodology:

The present study is a Knowledge, attitude and practice study conducted among undergraduates. Semistructured Questionnaire was designed and pretested among twenty undergraduates and necessary corrections made eloquently. Questionnaire administered among hundred intern students. Questionnaire consisted of four aspects of disease like lifestyle factors,screening of disease ,frequency of fundus examination and on glycaemic index.Maximum time allotted was forty five minutes .Both closed and open ended questions were included in the questionnaire. Results were analyzed as strongly agree, agree, disagree, strongly disagree. Data was entered using Microsoft excel and analyzed using SPSS 16. Frequency distribution tables made accordingly.

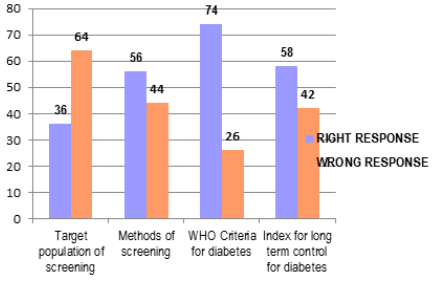
Results:

Table 1:

KNOWLDEGE ABOUT THE RISK FACTORS OF DIABETES					
S.No	**Do you know that the following are the risk factors of diabetes?**	**Strongly agree Number (%)**	**Agree Number (%)**	**Disagree Number (%)**	**Strongly Disagree Number (%)**
1	Family History	22 (44)	28(56)	-	-
2	Obesity	28(56)	22(44)		
3	Physical Inactivity	25(50)	25(50)		
4	Known Diabetic/IGT	24(48)	24(48)	2(4)	
5	Delivery of big baby	14(28)	32(64)	4(8)	
6	Hypertension	3(6)	38(76)	3(12)	3(6)
7	HDL Cholesterol	8(16)	31(62)	10(20)	1(2)
8	History Of Vascular Disease	5(10)	35(70)	9(18)	1(2)
9	Genetic Factors	27(54)	20(40)	3(6)	
10	Smoking	13(26)	25(50)	11(22)	1(2)

Table 1 shows that knowledge about risk factors for Diabetes is 0nly 26 to 50%.About 2 % of students are totally not aware of risk factors.About more than 90 % of students are totally not aware of genetic factors.

Figure 1:



It is evident from table 2 that students are not aware of WHO criteria for diabetes.

Table 2:

KNOWLDEGE ABOUT THE RISK FACTORS OF DIABETES RETINOPATHY					
S.No	**Do you know that the following are the risk factors of diabetes retinopathy?**	**Strongly agree Number (%)**	**Agree Number (%)**	**Disagree Number (%)**	**Strongly Disagree Number (%)**
1	Duration Of Diabetes	33(66)	17(34)		
2	Glucose Control	38(76)	8(16)		
3	Puberty	4(8)	16(32)	30(60)	
4	Pregnancy	10(20)	27(54)	13(26)	
5	Renal Disease	11(22)	30(60)	9(18)	
6	Systemic Hypertension	12(24)	35(70)	3(6)	
7	Serum Cholesterol	17(34)	29(58)	4(8)	
8	Cardiovascular Disease	11(22)	30(60)	9(18)	
9	Genetic Factors	4(8)	24(48)	10(20)	12(24)
10	Sex	6(12)	12(24)	22(44)	10(20)
11	Age	15(30)	33(66)	2(4)	
12	Smoking	11(22)	30(60)	5(10)	4(8)

Table 3:

RESPONSES ABOUT DIABETES RETINOPATHY			
S.No	**VARIABLES**	**YES Number(%)**	**NO Number(%)**
1	**What is diabetic retinopathy**	20(40)	30(60)
2	**Who gets diabetic retinopathy?**	36(72)	14(28)
3	**Signs and symptoms**	32(64)	18(36)
4	**Can diabetic retinopathy be treated?**	35(70)	15(30)
5	**Who treats patients with diabetic retinopathy?**	38(76)	12(24)
6	**Is diabetic retinopathy curable**	24(48)	26(52)
7	**Are you aware about any therapy for Diabetic Retinopathy**	31(62)	19(38)

Table 4:

RESPONSE ABOUT FREQUENCY OF FUNDUS EXAMINATION AMONG DIABETICS				
	IMMEDIATELY ON DIAGNOSIS	EVERY 6 MONTHS	EVERY ONE YEAR	EVERY TWO YEARS
TYPE-1 DIABETES	17(34)	22(44)	7(14)	4(8)
TYPE 2 DIABETES	19(38)	21(42)	10(20)	-

Discussion:

Studies such as the Wisconsin Epidemiological study have proved that microvascular complications such as diabetic retinopathy are linked to the duration of disease. while the occurrence of diabetic retinopathy cannot be prevented sight threatening complications can be prevented. Previous research has shown that 63% of rural population have not had an eye examination. Similarly the non response to the invitation to attend DR camps are such that 1076 people who were diagnosed as having diabetes in the diabetes screening camp only 125 attended the diabetic retinopathy screening camp conducted one week later. Although almost all students strongly agreed that all diabetic patients must be referred to ophthalmologist for routine eye examination for the detection of retinopathy, many of them believed that as long as diabetes is kept under control there is no need to worry about diabetic complications. However the fact is that all the diabetic patients whether controlled or uncontrolled should be screened for Diabetic related complications. Studies such as DCCT and UKPDS have proved that the complications of diabetes can be delayed but cannot be completely prevented by diabetic control. Many students in our study believe in the myth that diabetes is more prevalent among the uneducated people. This highlights the confusion persisting among the medical students regarding practice towards diabetes.

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