Original Research Article

AN ASSESSMENT OF KNOWLEDGE, ATTITUDE, AND PRACTICES (KAP) TOWARDS DIABETES AND DIABETIC RETINOPATHY

ABSTRACT

Introduction: Diabetes mellitus is an endocrine metabolic disorder whereas Diabetic retinopathy is a major complication of diabetes. Diabetes occurs due to defectin insulin secretion, action, or both which in turn leads to chronic hyperglycemia with disturbances of carbohydrate, fat, and protein metabolism and is associated with long-term damage, dysfunction, and failure of different organs (eyes, kidneys, nerves, heart, and blood vessels). DR is a progressive alteration in the microvasculature that lead to retinal ischemia of retina, altered retinal permeability, neovascularisation, macular edema.

Methods and Materials: It was a prospective cross-sectional, which was carried out for a period of 6 months (December-2020 to May-2021). The knowledge, attitude and practice were assessed on diabetes and diabetic retinopathy by using questionnaires. IEC and informed consent were obtained before conducting the study. In this study total 362 number of diabetic patients are included. The completed questionnaires were collected and analysed using SPSS software and results were expressed in percentages.

Results and Discussion: In the study, majority of the patient were male and between the ages of 46-55 years. Patients had good knowledge on diabetes when compared to diabetic retinopathy, positive attitude was seen towards diabetes than diabetic retinopathy and good practice patterns were observed in diabetic retinopathy than diabetes.

Conclusion: Our study concluded that the patients had good knowledge on about diabetes and a very poor knowledge on diabetic retinopathy. Positive attitude was seen in diabetes where as good practice patterns was seen in diabetic retinopathy.

KEYWORDS

Diabetes, diabetic retinopathy (DR), non-proliferative diabetic retinopathy (NPDR), proliferative diabetic retinopathy (PDR), macular edema (ME).

INTRODUCTION

Diabetes mellitus (DM) is an endocrine metabolic disorder affecting the pancreas[(1)] which results in either deficit in insulin secretion, insulin action, or both and is commonly increasing world-wide reaching to epidemic proportion[(2,3)]. Insulin deficiency in turn leads to chronic hyperglycemia with disturbances of carbohydrate, fat, and protein metabolism.[(4)] The chronic hyperglycemia of diabetes is associated with long-term damage, dysfunction, and

failure of different organs, especially the eyes, kidneys, nerves, heart, and blood vessels.[5] It was estimated that the prevalence of diabetes may increase in adults by 69% in developing countries and 20% increase in developed countries between 2010 and 2030.[6] The classic symptoms of diabetes such as polyuria, polydypsia and polyphagia occur commonly, which has a rapid development of severe hyperglycaemia.[7]

Diabetic retinopathy (DR) is a major complication of diabetes and is an progressive alterations in the microvasculature which lead to retinal ischemia of retina, altered retinal permeability, neovascularisation, macular edema (ME).[8] It is one of the leading cause of visual loss in 15-64 age group populations.[9,10,11,12,13].In fact, abnormalities in retinal function can be detected in patients without any evidence of microvascular abnormalities, and the American Diabetes Association (ADA) has recently defined DR as a highly specific neurovascular complication.[14] DR is mainly divided into two stages: proliferative diabetic retinopathy (PDR) and non-proliferative diabetic retinopathy (NPDR). Non-Proliferative diabetic retionpathy represents the early stage of diabetic retinopathy, wherein increased vascular permeability and capillary occlusion and Proliferative diabetic retionpathy, a more advanced stage of diabetic retinopathy, is characterized by neovascularization.

Primary prevention of diabetes is feasible and strategies such as lifestyle modification are effective in populations of varied ethnicity.[15,16] However, for implementation of the strategies at the population level, national programmes which are culturally and socially acceptable and practical have to be formulated which are currently lacking in most of the developed and developing countries. Early diagnosis and institution of appropriate therapeutic measures yield the desired glycaemic outcomes and prevent the vascular complications.[17] Early detection and timely intervention of DR is also the key to avoid blindness due to diabetes. Hence, the study was conducted to assess the knowledge, attitude and practice towards diabetes and diabetic retinopathy.

AIM

The aim of the study is to assess Knowledge, Attitude, and Practices (KAP) towards Diabetes and Diabetic Retinopathy.

OBJECTIVES

The objective of the study is to assess the Knowledge, Attitude, and Practices (KAP) towards diabetes and diabetic retinopathy by using questionnaire.

METHODS AND MATERIALS

The study was a prospective cross-sectional, which was carried out in Kalaiyarkovil, Tamilnadu for a period of 6 months from December 2020 to May 2021. The study was carried out by using questionnaire which includes the questions related to knowledge, attitude and practice on diabetes and diabetic retinopathy.IEC was obtained before conducting the study. Informed consent form was signed by the patients or caregivers before conducting the study. The patients diagnosed with diabetes were included in the study and the patients who were not willing to participate or sign the informed consent form were excluded from the study. In total 362 patients were included in the study based on the inclusion and exclusion criteria. The completed questionnaires were collected and analysed using SPSS software. All the obtained results were expressed in the form of percentages.

RESULTS AND DISCUSSION

The study was a prospective cross-sectional, which was carried out in Kalaiyarkovil, Tamil Nadu for a period of 6 months from December 2020 to May 2021. A total of 362 patients were included in the study based on the inclusion and exclusion criteria.

Based on the age group (Table 1 and Figure 1), there were 17 patients in between 25-25 years, 63 patients between 36-45 years, 115 patients between 56-65 years and 43 patients between 66-75 years and majority of the patients were in the age group of 46-55 years (n=124) which was similar to the study carried out by Abdulrahman Al-Yahya at al., 2020.[18]Based on the gender (Table 2 and Figure 2), out of 362 patients majority were males (n=198) when compared to females (n=164) which was similar to the study carried out by NithinKeshav Srinivasan et al 2017.[19]

Table – 1: Based on the Age group.

FACTOR(AGE IN YEARS)	NUMBER OF PATIENTS (n=362)
25-35 years	17
36-45 years	63
46-55 years	124
56-65 years	115
66-75 years	43

Figure – 1: Based on the Age group.

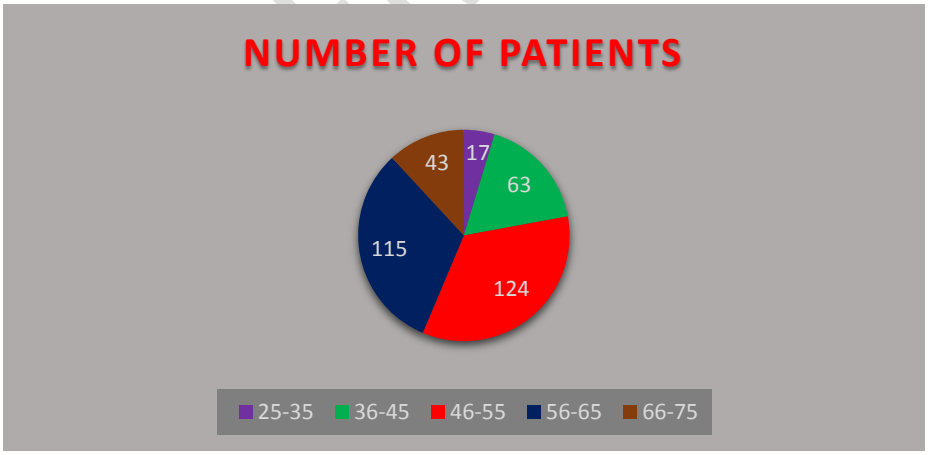
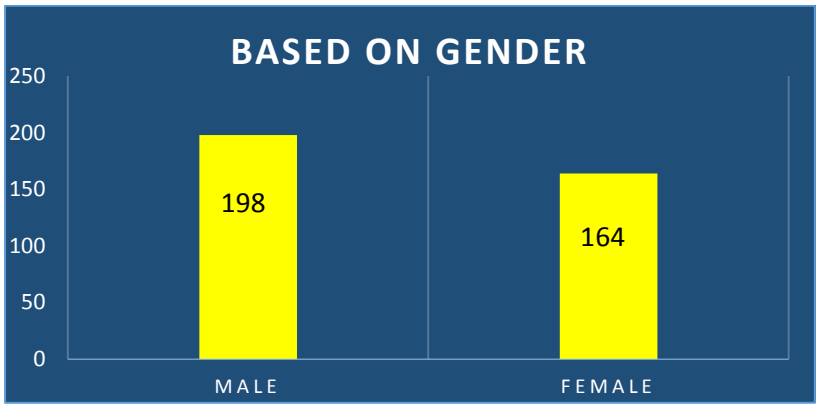


Table – 2: Based on Gender.

GENDER	NUMBER OF PATIENTS (n=362)
Male	198
Female	164

Figure – 2:Based on Gender.

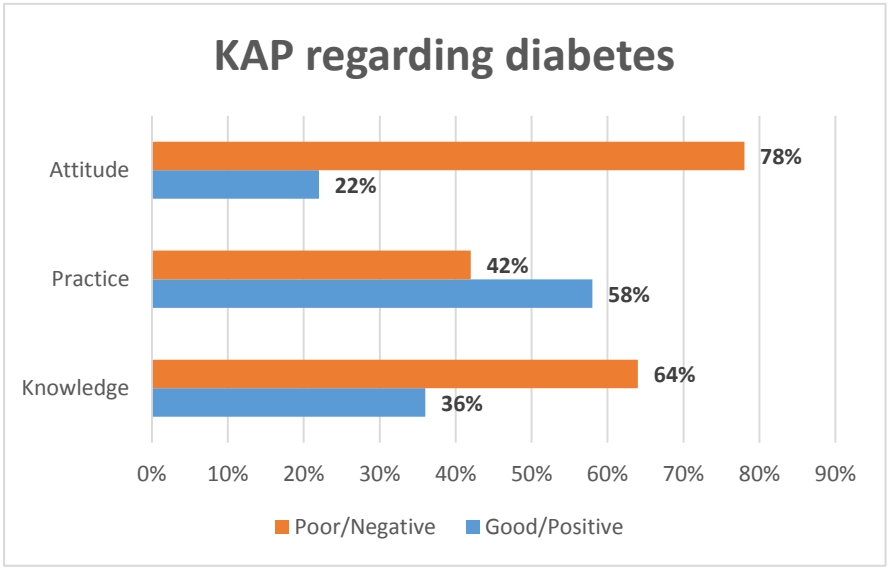


Among 362 patients in the study, 129 (36.0%) had good knowledge regarding of the disease diabetes, while only 81 (22%) number of patients have positive attitude towards disease of diabetes and 152 patients (42%) were found to have good practice patterns towards diabetes [Table 3 and Figure 3]

Table – 3: KAP regarding diabetes (n=362)

PARAMETERS	GOOD/POSITIVE	POOR/NEGATIVE
Knowledge	129 (36.0%)	233 (64%)
Practice	210 (58%)	152 (42%)
Attitude	81 (22%)	281 (78%)

Figure – 3: KAP regarding diabetes (n=362)



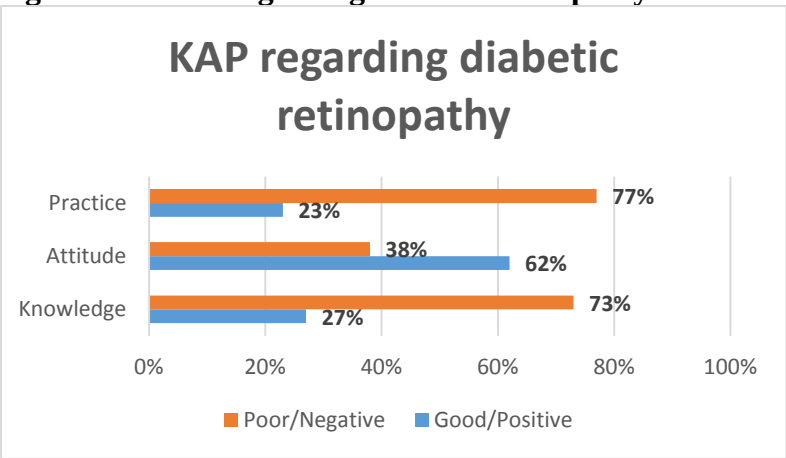
Among 362 patients in the study, 98 (27%) had good knowledge of diabetic retinopathy, while 224 (62%) had positive attitude towards diabetic retinopathy and only 84

patients (23%) were found to have good practice patterns towards diabetic retinopathy [Table 4 and Figure 4].

Table – 4: KAP regarding diabetic retinopathy

PARAMETERS	GOOD/POSITIVE	POOR/NEGATIVE	
Knowledge	98 (27%)	264 (73%)	
Practice	224 (62%)	138 (38%)	
Attitude	84 (23%)	278 (77%)	

Figure – 4: KAP regarding diabetic retinopathy



CONCLUSION

Our study concluded that the patients had good knowledge on about diabetes and a very poor knowledge on diabetic retinopathy. Positive attitude was seen in diabetes where as good practice patterns was seen in diabetic retinopathy. Lack of knowledge is the major barrier with regards to the screening for diabetic retinopathy for visual impairment and blindness. The complication of diabetes especially diabetic retinopathy is almost entirely preventable with early diagnosis and treatment. Therefore, there is an urgent need to evolve the strategies to educate the diabetes patients regarding diabetic retinopathy and its complications. Furthermore, large scale studies are needed to support our study.

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