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TO STUDY THE ATTITUDE TOWARDS DIABETES AMONG PATIENTS WITH COMPLICATED AND UNCOMPLICATED DIABETES MELLITUS.

Medical Science

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ABSTRACT

Background: Type 2 diabetes mellitus has become a global epidemic with significant disability and premature death. Identification of the level of knowledge, attitude and practice related to diabetes among known Diabetic patients is important in strategies for prevention of complications associated and overall prognosis..

Methods: This study was conducted in a hospital setting with known Diabetic patients coming to hospital with and without complications associated like Nephropathy, Neuropathy and Retinopathy.

Results: Most of the patients in both groups felt a need for special training to health care professionals regarding educating them about diabetes to them and have perceived the seriousness of diabetes and have similar attitudes towards patients autonomy and need for tight glycemic control in diabetes management. Significant difference observed between uncomplicated and complicated groups regarding their Sedentary lifestyle (p Value = 0.001)

Conclusion: Doctors, nurses and dieticians need special training to educate the patients regarding diabetes found in both groups have perceived the seriousness of diabetes.

KEYWORDS

Diabetes Mellitus, Attitude, Practices

INTRODUCTION

Diabetes mellitus comprises a group of common metabolic disorders that share the phenotype of hyperglycemia. Diabetes is one of the most complicated chronic medical conditions where a high degree of patient self-management is required to ensure optimal outcomes. Conversely, chronic stressors and psychiatric symptoms may markedly interfere with adherence to self-care regimens (Eg: Diet, Exercise, Medications and Substance Abuse)

Evidence suggests that various socio-demographic determinants, including poor health knowledge, account for the epidemiologic shift of DM in lower middle-income countries [1,2]. Growing evidence from knowledge, attitude, and practice (KAP) studies indicates there is an urgent need to enhance DM awareness, early diagnosis, control of risk factors, and disease management [3,4]. Most KAP studies have been conducted among diagnosed or newly diagnosed patients with DM attending hospitals or healthcare centers [1,2,4]

An Australian randomized controlled trial suggested that incorrect knowledge about DM risk factors and motivation to make lifestyle changes were significantly associated with diet modifications and exercise habits. That study also reported a strong association between lifestyle modifications and reduction in waist circumference, body mass index, and blood glucose level [5,6].

Self-care education is an essential component in the management of DM. The health care professional's knowledge, abilities and strategies can positively influence behavioural change in patients to adhere to diet, exercises, glucose monitoring and sticking to medication which enables adequate metabolic control. [7-8]

Adherence to those measures reduces chronic complications and mortality and morbidity will be improved in these patients[9] . A significant correlation between attitude and knowledge for people with diabetes suggests that mere experience for people is associated with predisposition to assume self-care[10]. It results in reduction stones more respectively to treatment and higher same of self-esteem and efficacy and more acceptance of one's health and social acceptance of one's health and social acceptance. The American diabetes association acknowledges self-care management behaviour is most fundamental and prevention of diabetes. attitudes towards diabetes, opening skills, social support accountability of health care system together shape the self-care management. The American diabetes association is recommending various behavioural and psychosocial interactions at the community level, family and individual levels. This study considers attitude as a predisposition to adopt self-care actions. The benfits of educational programme.unless we evaluate the effect of knowledge about diabetes, mass educational activities cannot be planned well. However, these are universal convenience that changes of attitude that occurs during educational purpose and improves the quality of care and reduces direct and indirect costs in health [11]. In this context, the study aimed to rectify the knowledge and activities of people with diabetes mellitus who are taking treatment of various levels.

MATERIALS AND METHODS

The study conducted in Department of Medicine, Osmania General Hospital, Hyderabad. The patients included previously screened by Physician/ Endocrinologist and diagnosed as having diabetes mellitus and taken as the sample. The patient population comprised of persons suffering from diabetes mellitus of all types and suffering from one or more complications of diabetes also. These patients were attending the medical as well as departments of Neurology, Nephrology, Ophthalmology and Endocrinology for the care and patients were selected on a consecutive sampling basis.

Based on the presence of complications due to diabetes, the patients divided into two groups:
Group A: Diabetes without complications
Group B: Diabetes with complications

INCLUSION CRITERIA:

1. Patients with Diabetes (as per International Criteria), with or without complications

2. Age group: 18-65 years

Criteria For The Diagnosis Of Diabetes Mellitus

Symptoms of Diabetes plus Random Blood Glucose Concentration > 1.1 mmol/l (200 mg/dl)

` Or

Fasting plasma glucose > 7.0 mmol/l (126 mg/dl)

Or

Two-hour plasma glucose > 11.1 mmol/l (200 mg/dl) during an Oral Glucose Tolerance Test.

A. Random defined as without regard to time since the last meal.
B. Fasting defined as no caloric intake for at least 8 hours.
C. The test performed using a glucose load containing the equivalent of 75g.

Anhydrous Glucose dissolved in water; not recommended for routine clinical use.

Exclusion Criteria:

1.Impaired Glucose Tolerance, impaired Fasting Glucose and Gestational Diabetes
2.Head injury
3.Epilepsy
4.Patients using Steroids, Immunoglobulins, Interferon.
5.Connective tissue disorders, other endocrinal disorders
6.Cancer patients
7.Intra Cranial Space Occupying Lesions
8.Patients with known Psychotic disorders
9.< 18 yrs and > 65 yrs

DESCRIPTIONS OF TOOLS USED

Semi Structural Proforma

All the participants administered the semi-structured proforma, which elicits the demographic data like age, education, occupation, socio-economic status of the patient. A detailed history about the family type, living situations, number of children, substance use and dietary habits taken. A detailed evaluation of the significant family history for medical and mental illnesses, hospitalization status, treatment details regarding diabetes and complications of diabetes done.

Knowledge was measured using questions related to diagnosis, risk factors, prevention, and complications of DM.

An attitude was assessed using questions related to adherence to treatment of DM. The questions were,

- "Do you think special training is mandated for health care professionals dealing with Diabetic patients.
- "Are you aware of the seriousness of Diabetes Mellitus and complicated associated in long run
- "Does tight control of diabetes with strict adherence to diet and medications is of any value
- "Does Diabetes Mellitus cause Psychological impact on the individual

Practices were assessed using four questions on preventive strategies; self-care, dietary modifications and monitoring of blood sugar. Responses to the individual questions were assessed in order to evaluate the positive and negative practices.

OPERATIONAL PROCEDURE:

The sample consisted of patients in the age group of 18-65 years belonging to both genders, of different regions. After obtaining informed written consent from all patients who were studied, detailed history of age, sex, socio-economic status, education, family type, living conditions, diabetes treatment and complications taken. The patients divided into two groups. Group A consisted of 40 number of patients with diabetes and group B of 40 of those diabetic patients with complications. Each patient in both groups assessed regarding their knowledge regarding their illness and their Attitude towards their illness.

RESULTS

Sex Distribution

Gender	Uncomplicated	Complicated	ChiSquare test	significance
Male	27(67.5)	33(82.5)	2.4	P=0.0121
Female	13(32.5)	7(17.5)		

Gender differences were observed in complicated and uncomplicated groups. Female gender has been associated with lesser incidence of landing in complicated group compared to males.

SocioEconomic Status Distribution

Socioeconomic Status	Uncomplicated (n=40)	Complicated (n=40)	Chi Square Test	Significance
Uppermiddle class	28(70%)	2(5%)	40.990	Pvalue= 0.001 Significant
Lowermiddle class	12(30%)	23(57.5%)		
Upperlower class	0	15(37.5%)		

Differences were observed in two groups evn based on differences in socio economic status of the individuals. Complicated patients were commonly found in Lower Middle Class group.

Education Status Distribution

Education	Uncomplicated	Complicated	Chisquare	Significance
Illiterate	0(0%)	6(15%)	36.714	pvalue= 0.001 Significant
Primary	4(10%)	18(45%)		
SSC	0(0%)	6(15%)		
Intermediate	11(27.5%)	4(10%)		
Degree	20(50%)	6(15%)		
Professional Education	5(12.5%)	0(0%)		

ILLNESS RELATED FACTORS

Sedentary Life Style

Sedentary Life Style	Uncomplicated	Complicated	Chi square	Significance
Yes	5 (12.5%)	19 (47.5%)	72.381	P value = 0.001 Significant
No	35 (87.5%)	21 (52.5%)		

Significant difference observed between uncomplicated and complicated groups regarding their Sedentary lifestyle (p Value = 0.001)

Reaction To Illness

Reaction to Illness	**Uncomplicated**	**Complicated**	**Chi square**	**Significance**
Mild	39	38	3.013	0.222 Not Significant
Moderate	0	2		
Severe	1	0		

No significant difference was observed between two groups regarding their reaction to Illness

Diabetes Attitude Survey

	Uncomplicated (n=40)	Complicated (n=40)	tTest	pValue
Need for Special training	20.31(2.59)	19.68(2.76)	-1.055	0.295
Seriousness of NIDDM	20.51(1.931)	20.05(1.377)	-1.229	0.223
Patient Autonomy	24.54(3.007)	25.55(2.320)	1.676	0.098
Value of Tight Control	23.62(2.267)	21.28(2.172)	-4.686	0.001
Psychological Impact of Diabetes Mellitus	23.44(2.945)	25.55(2.396)	3.504	0.001

Most of the patients in both groups felt a need for special training to health care professionals regarding educating them about diabetes to them.

Most of the patients in both groups perceived the seriousness of diabetes and have similar attitudes towards patients autonomy in diabetes management.

There is a significant difference between both groups in appreciating

the need for tight glycemic control and Psychological Impact of Diabetes Mellitus.

DISCUSSION

Previous studies reported that Diabetes Mellitus management and care are strongly related to adequate knowledge, and there is a correlation between Diabetes Mellitus knowledge and hemoglobin A1c level [12,13,14]. The present study demonstrated unsatisfactory outcomes in terms of Diabetes Mellitus knowledge, with only 11.3% of respondents knowing all knowledge items and 47.4% having adequate knowledge. Our study also suggested there were positive practices regarding Blood Glucose Level among those diagnosed with Diabetes Mellitus, as only a minority (8.7%) of diagnosed patients had never had their Blood Glucose Level checked since diagnosis.Many non-genetic factors contribute to the development. Non genetic factors like dietary habits, sedentary life style, socio economic status, availability, accessibility and affordability of treatment, personal factors like self-esteem, cognitions and social support have significant influence over the outcome of diabetes. Diabetes is one of them most complex chronic medical conditions where a high degree of self-care, supportive and social network is necessary to ensure optimal outcomes. Protective effect of physical exercise on depression and anxiety has been reported.[15,16] The release of neurotransmitters including beta-endorphins has been proposed as an underlying mechanism for the protective effect of exercise. So it is very important to provide insights and educating the patients regarding the course of illness, prognosis and treatment options as it helps in overall outcome.

SALIENT FEATURES OF STUDY:

1. Doctors, nurses and dieticians need special training to educate the patients regarding diabetes found in groups from above study.
2. Most of the patients in both groups have similar perceived the seriousness of diabetes.
3. Most of the patients in both groups have similar attitude towards patient's autonomy in diabetic management
4. Even though significant difference is present in both groups, patients were appreciating the need for tight control of blood sugar.

FUTURE DIRECTIONS:

1. Treating doctors should have the knowledge of detecting depression in chronic illnesses like diabetes.
2. Health care professionals should improve their counselling skills regarding diabetes management.
3. Mass education programmes regarding diabetes care keeping the attitudes of public towards diabetes in community
4. Mass education programmes should also focus on physiological impact on patients to improve the disease outcomes

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