Level of Health Education in Patients with Type II Diabetes Mellitus in Quetta

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Abstract

Objective: The objective of the study was to determine the level of health education in people with diabetes.
Design, setting and subjects: 712 sub jects, 428 male and 284 female, with type II diabetes mellitus of age between 40-70 years were assessed during March, 1993 to December, 1997 in Sandeman (Prov) Civil Hospital and private hospital and clinic in Quetta.
Methodology: Patients were interviewed and questionnaire consisting of twenty items were filled.
Results: The level of health education in our cases was poor as only 22.89% had partial awareness about their disease.
Conclusion: 77.11% of the study population had no knowledge of diabetes and its complications. More emphasis should be given to health education of diabetics along with pharmacological therapy (JPMA 48:334, 1998).

Introduction

Diabetes mellitus is a syndrome with defective metabolism of carbohydrate, fats, proteins, water and electrolytes and inappropriate hyperglycemia due to either an absolute deficiency of insulin or a reduction in its biological effectiveness or both. There are two main types of diabetes mellitus, type I or insulin dependent diabetes mellitus (IDDM) and type II or non- insulin dependent diabetes mellitus (NIDDM). Type I is characterized by absolute insulin deficiency, tendency to ketosis, abrupt onset of severe symptoms and age of onset is usually before 30 years. Type II diabetes is not dependent on exogenous insulin, not prone to ketosis and the age of onset is after 40 years[1].
The modem treatment of diabetes not only requires pharmacologic therapy but also health education by the doctors and health workers. In the long temi management, itis the diabetic himself who takes the treatment given by physicianand performs self monitoring of blood sugar for its smooth control[2]. Significant reduction in diabetes related complications were noted through effective educational programs in the state of Texas[3]. The Asians in Britain showed poor glycemic control and high incidence of complications due to lack of awareness of diabetes management and knowledge of complications[4]. Diabetes education has also changed the health belief, compliance and metabolic control[5-7].
The efficacy of health education in type H diabetes mellitus clearly showed control of weight and improvement in haemoglobin Al over six months period[8]. Self momtoring of blood glucose is important for maintaining normoglycaemia in people with diabetes though a large number of them find it difficult due to financial barriers. Diabetes health education[9] shows the difference in the form of less absenteeism from work and a low incidence of lower extremity and clinical abnonnalities as compared to those having no or poor health education[10-14].

Subjects and Methods

A questionnaire consisting of twenty items was filled in by people with type II diabetes mellitus havingthe disorderfor at least one yeat The questions were related to the disease itself, the role of diet and the complications. Diabetics of 40 years age or above, having blood sugar levels of more than 7.8 mmol/liter in fasting condition or 11.1 mmol/liter in random samples, at least on two occasions and on oral hypoglycemic agents were included in the study.

The subjects were placed in two groups: group I having no formal education and group II with formal education. The group!! was further divided in three sub groups depending on the formal education level. Group Il-A consisted of patients with education level of matric, group II-B graduates andgroup II-C with postgraduate level of education.

The level of diabetes health education was assessed as noteducated having no correctanswers regarding diabetes and poor having answered two questions, while the average group answered five questions. Patients with more than five correct answers were categorised as good.

Results

Seven hundred twelve patients, 428 male and 284 females from the department of medicine of Bolan Medical College at Sandeman (Prov) Civil Hospital and private Hospital and clinic were included in the study from March, 1995 to December, 1997 to assess the level of health education. The status of health education in subjects belonging to Group I and the sub groups of Group II are shown inTable l and II.

Table I. The status of health education in group I diabetic patients (n=712).

No diabetic health education	Poor	Average	Good
219	142	29	Nil
56.15%	36.4%	7.4%	0.0%

The grading of poor, average and good is based on the score made by the patients on the questionnaire.

Table II. The status of health education in the three categories of group II diabetic patients (n=322).

Sub groups	Not educated	Poor	Average	Good
Group II-A	72	75	62	6
215	33.5%	34.9%	28.8%	2.8%
Group II-B	9	16	25	11
61	14.8%	26.2%	41.0%	18.3%
Group II-C	13	3	21	9
46	28.3%	6.5%	45.7%	19.6%

Group II patients are divided into three subgroups based on their level of education, with AB & C corresponding to matric, graduate and postgraduate level of education.

Discussion

The management of a chronic life long disorder not only requires the prescription of appropriate pharmacological therapy by the doctors, but also intensive education and counseling of the patients for smooth control of glycemia as well as self-care and prevention of long term complications[2]. In our study, of 390 patients in group 1,29 patients (7.43%) in group II, 32% in group TI-A, 60% in group Il-B and 65% in group Il-C had awareness regarding their disease. Patients having no health education were not compliant; nOt getting their blood sugar level checked, had no awareness regarding long term complications and had misbeliefs about diabetes. Wooldridge et al[5] also observed misbelief, pooradherence and poor metabolic control in patients with poor health education and their modification alter health educatiofL Patients with health education in our study showed good metabolic control as compared to those patients who had poor or no health education. Brown and O'Conner et al, observed improvement in glycosylated hemoglobin levels between 1-6 months after imparting health education to diabetics.

In Balochistan the literacy rate is low (2 1%) and in the health sector the number of health educators is limited. Practically there is no program of health education for diabetics as compared to USA where there are 30 programs for the purpose[3]. The fonnal education does not improve the understanding of the disease as shown by the data in Table II. In our patients with postgraduate education, only 19.6% had good health education to the extent of self-caring, self blood sugar monitoring and awareness regarding long-term complications. It is the health education which improved the quality of life and life expectancy of these patients[13]. The majority of patients in hospital and clinic settings find verbal communications difficult thus emphasizing the need for other methods of health education as audio-visual aids and posters.

The Asian population with diabetes settled in UK are noted to lack knowledge on the disorder and its self management. This is attributed to communication difficulties[13], which is a similarfmding as in our

setting.
Health education has been placed on an equal footing as phannacological therapy especially in people with diabetes[2]. This not only provides abetter quality of life but also prevents the chronic complications. Motivation of health educators, social workers, doctors and the media is mandatory to achieve the purpose.

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