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ANALYSIS OF EMOTIONAL AND PSYCHOLOGICAL NEEDS OF PEOPLE WITH DIABETES MELLITUS

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Abstract:

The main objective of the study is to analyse the emotional and psychological needs of people with diabetes mellitus. The study was conducted at Islamabad Medical and Dental College during March 2019 to January 2020. The data was collected from 100 diabetic patients who was suffering from diabetes from last one year. After approval by the hospital ethical review committee, informed written consent was taken from the patients prior to inclusion in the study. The demographic values shows that there is a significant relation between diabetes and hyperlipidemia in a local population of Pakistan. The value of HbA1C is 5.77 ± 0.50 in diabetic patients as compared to normal group. The patient's perception about the seriousness of diabetes will affect the way they cope with the disease. Several psychological factors as discussed earlier contribute to affect the emotional and psychological well-being of a person with diabetes. It is concluded that psychosocial needs of the patient would overcome the psychological barrier associated with adherence and self-care, while achieving long-term benefits in terms of better health outcomes and glycemic control.

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INTRODUCTION:

Diabetes mellitus (DM) has been emerging as a major healthcare problem in Pakistan with 7.0 million people suffering from it and the number of diabetic patients is estimated to rise to a staggering figure of 14.4 million by the year 2040 making Pakistan the 8th highest country in the world in terms of burden of diabetic patients [1].

The aging population is growing worldwide and the proportion of people above 60 years old accounts for 15% of the whole population which is estimated to 7.5 billion. In general, 20% of old people have DM, and a similar proportion have undiagnosed DM. Reported frequencies vary from 18% to 33%. This range may reflect differences in the age, life style, and genetic background of the analyzed populations. On another hand, 30% of old people have impaired glucose regulation which means an increased risk for DM [2]. Actually, DM in elderly includes two groups: "survivors" of young or middle age onset of diabetes, and incident diabetes in older age or type 2 DM. Type 1 DM is exceptional in elderly as auto immune diseases affect young populations. So old people with type 1 DM are practically at the end stage of their disease and are multi complicated. Most people over than 60 years old suffer from type 2 DM due to insulin resistance. However, insulin secretion may be severely reduced at the end stage of type 2 DM [3].

Consequently, complications, and management of DM in elderly vary according to hyperglycemia duration, personal background, and co-morbidities. Some old people do not have any complication and are easy to manage; others are multi complicated and have additional severe diseases difficult to treat even in highly specialized centers[4]. The last group is encountered among survivors of young onset DM. The main troublesome co-morbidities in elderly are heart and kidney insufficiencies leading to limitation in medicine prescription.

Evidence indicates that diabetes and its complications are strongly associated with psychological and psychiatric problems. These include depression, poor-eating habits, and fear of hypoglycemia. Moreover, patients with type 2 diabetes mellitus (T2DM) also have a two-fold greater risk for comorbid depression compared to healthy controls, hampering the QoL of patients. Research also indicates that patients with diabetes suffer from high levels of diabetes-specific emotional stress. This is associated with functional impairment, poor adherence to exercise, diet and medications, and inadequate glycemic control [5].

Aims and Objectives:

The main objective of the study is to analyse the emotional and psychological needs of people with diabetes mellitus.

METHODOLOGY OF THE STUDY:

The study was conducted at Islamabad Medical and Dental College during March 2019 to January 2020. The data was collected from 100 diabetic patients who was suffering from diabetes from last one year. After approval by the hospital ethical review committee, informed written consent was taken from the patients prior to inclusion in the study. Patients from both genders, age range 35 to 65 was selected for this study. Given that emotional and psychological needs of people living with diabetes are complex, it is important to understand the range of psychological problems in any patient population or individual. The NHS Diabetes and Diabetes UK's summary of psychological needs in diabetes group advocated a tiered model of emotional and psychological support known as the pyramid of psychological need.

Fasting plasma glucose, serum TC, HDL-C, LDL-C, TG and insulin resistance was measured by using Randox kit.

SPSS 17.0 for windows was used for statistical analysis. Descriptive statistics i.e. mean ± standard deviation for quantitative values (age, duration of DM, BMI, BSF, lipid sub fraction levels and HbA1C) and frequencies along with percentages for qualitative variables (gender, smoking status) were used to describe the data. Independent sample 't' test.

RESULTS:

The demographic values shows that there is a significant relation between diabetes and hyperlipidemia in a local population of Pakistan. The value of HbA1C is 5.77 ± 0.50 in diabetic patients as compared to normal group. (Table 01)

Table 01: Clinical and biochemical profile of study population.

Variable	Diseased group	P value
Age (years)	48.04 ± 4.83	0.018
Male, n (%)	71 (50.71%)	0.285
Smoker, n (%)	32 (22.85%)	< 0.01
Duration (years)	4.60 ± 3.03	0.067
BMI (kg/m^2)	26.31 ± 2.71	0.418
Plasma Glucose (F) mg/dl	117.34 ± 7.93	< 0.01
HbA1C (%)	5.77 ± 0.50	< 0.01

Psychological reaction of diabetic patients:

The patient's perception about the seriousness of diabetes will affect the way they cope with the disease. Several psychological factors as discussed earlier contribute to affect the emotional and psychological well-being of a person with diabetes [6]. These include degree to which an individual accepts his/her diagnosis, how the individual adjusts to the demands of self-care routine, and finally how he/she copes with progression of the condition, which potentially includes the development of diabetes-related complications [7]. However, considering that living with diabetes is a lifelong stress and requires dealing with psychological issues, the psychological reactions of patients towards diabetes can be categorized under four basic levels of emotional distress [8].

Diabetes distress

The National Diabetes Service Scheme Australia defines DD as the emotional burden of living with and managing diabetes. It is a unique, often hidden, emotional burdens and worries that a patient experiences when he/she is managing a severe chronic disease such as diabetes. The needs of the patient during the DD have to be assessed and managed at self, family and friends, and the care provider [9-10].

Table 2: Selected measures for the evaluation of psychosocial constructs in the clinical setting

Topic area	Measure title	Citations	Description	Validated population
Diabetes-related distress	Problem Areas in Diabetes (PAID)	Polonsky WH, Anderson BJ, Lohrer PA, et al. Assessment of diabetes-related distress. Diabetes Care 1995;18:754–760	20-item measure of diabetes-specific distress measuring emotional distress and burden associated with diabetes	Adults with type 1 and type 2 diabetes
		Welch G, Weinger K, Anderson B, Polonsky WH. Responsiveness of the Problem Areas in Diabetes (PAID) questionnaire. Diabet Med 2003;20:69–72		
	Diabetes Distress Scale (DDS)	Polonsky WH, Fisher L, Earles J, et al. Assessing psychosocial stress in diabetes: development of the Diabetes Distress Scale. Diabetes Care 2005;28:626–631	17-item questionnaire measuring diabetes-specific distress in four domains: emotional burden, diabetes interpersonal distress, physician-related distress, and regimen-related distress	Adults with type 1 and type 2 diabetes
		Fisher L, Hessler DM, Polonsky WH, Mullan J. When is diabetes distress clinically meaningful? Establishing cut points for the Diabetes Distress Scale. Diabetes Care 2012;35:259–64 (39)		
	PAID–Pediatric	Markowitz JT, Volkening LK, Butler DA, Laffel LM.	20-item measure of diabetes burden	Youth (ages 8–17 years)

	Version (PAID-Peds)	Youth-perceived burden of type 1 diabetes: Problem Areas in Diabetes Survey-Pediatric Version (PAID-Peds). J Diabetes Sci Technol 2015;9:1080–1085		with type 1 diabetes
	PAID–Teen Version	Weissberg-Benchell J, Antisdel-Lomaglio, J. Diabetes-specific emotional distress among adolescents: feasibility, reliability, and validity of the problem areas in diabetes-teen version. Pediatr Diabetes 2011;12:341–344	26-item questionnaire measuring perceived burden of diabetes	Adolescents (ages 11–19 years) with diabetes

Reference: https://care.diabetesjournals.org/content/39/12/2126

CONCLUSION:

It is concluded that psychosocial needs of the patient would overcome the psychological barrier associated with adherence and self-care, while achieving long-term benefits in terms of better health outcomes and glycemic control. Thus, increased understanding of the psychological aspects of the patient with diabetes would allow clinicians to formulate strategies focusing on the improvement in diabetes outcomes and reduction of disease burden.

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