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EVALUATION OF CURRENT HEALTH SATISFACTION IN PEOPLE WITH TYPE 2 DIABETES MELLITUS

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ABSTRACT

Background: Health satisfaction is crucial as it is the key element of patient-centred care and is not the same as treatment satisfaction because it considers issues that are not specifically related to treatment. Low levels of health satisfaction in people with type 2 diabetes mellitus may negatively influence self-care behaviours and treatment outcomes. Objective: To evaluate the Current Health Satisfaction among type 2 diabetes patients using a Questionnaire (CHES-Q) designed to assess diabetes-related health satisfaction and knowledge about the disease. Methodology: This study evaluated the Current Health Satisfaction among hundred type 2 diabetes patients using (CHES-Q) instrument containing 14 items, designed to assess diabetes-related health satisfaction. Results: For physical health satisfaction, the subjects scored an average of 3.01± 1.35 out of 6 marks. The score achieved by the subjects for emotional health satisfaction upon 3 was 0.575±0.82. Inspite of diet counselling the knowledge score was 1.52±0.719 out of 5. Conclusion: If preventive measures like therapeutic interventions, diet counselling, weight management could postpone or prevent obesity, insulin use, and complications, significant health satisfactions could be attained.

KEYWORDS: Type 2 diabetes, Health satisfaction, Patient outcome measures.

INTRODUCTION

The focus on diabetes mellitus is increasing as it's becoming a leading public health problem. Studies showed that number of adults having diabetes will be more than double in 2030, with most increase occurring in Asia.[1] Diabetes has detrimental effects on health outcomes including quality of life outcomes[2] and studies have shown significant negative associations for health-related quality of life[3] Poor health satisfaction has been associated with

depression, stress, reduced energy and physical activity levels, and impaired social functioning. Contentment with life and with complete health have been acknowledged as predictors of long-term treatment outcomes in diabetes[4] Side effects of daily medications, dissatisfactions on dietary restrictions and insulin may adversely affect an individual's health-related quality of life. In addition, the long-term complications of diabetes will have a substantial bearing on both physical and mental wellbeing. Epidemiological study by[5] found that the quality of life was found to be poorer among diabetic subjects, compared with other people of the same age, and patients who received oral medication only reported higher life satisfaction than those who received oral medication and insulin therapy. Health satisfaction is an important gauge of how various aspects of health can influence behaviours and outcomes, and low levels of health satisfaction can negatively affect patient self-care and adherence to treatment.[6] Thus the aim of this study was to determine the current health satisfaction using a 14 item questionnaire.

METHODS

The study protocol was reviewed and approved by the Independent Institutional Ethical Committee. A cross sectional study was conducted randomly among 100 diabetes subjects attending an outpatient diabetic clinic. Individuals were approached during their consultation and asked whether they would like to participate in a questionnaire study. All participants provided written informed consent. The inclusion criteria were diabetic subjects within the age of 40 – 60 years, without any other complication and the duration of disease to be within 1- 3 years. A 14 item questionnaire, Current health satisfaction questionnaire (CHESQ), designed by Traina et al., 2015 was used to obtain information from the patients after getting permission from Mapi Research Trust. The CHES-Q measures satisfaction with health concepts that may affect patients' motivation to change behaviors, including weight, energy, appetite, sleep, physical functioning, social interactions, attitude, mood, blood sugar levels, blood pressure, and current health; it also measures self-reported knowledge of current blood sugar levels, blood pressure levels, and diabetes. The CHES-Q can provide a comprehensive description of the health and well-being of individuals with type 2 diabetes. Individual item scores can be used to provide insight into specific concepts, and groups of items can be combined to create physical and emotional domain scores.

RESULT AND DISCUSSION

The demographic profile of the selected subjects like age, gender, education and occupational status are presented in the table 1. Among the selected 100 subjects, majority of 41 % were below the age group of 55 – 60 yrs followed by 22 % in the age group of 45 – 49 yrs. Only 2 % of the participants were in the age group of 35- 39 yrs. When the distribution of gender was interpreted 69 % were male and 31 % were female. Major percent (48.5 %) of the subjects had finished their secondary education while 23.5 % were illiterates. A minority percent of 2 had professional degrees and 8.5 % were holding graduate degrees. When occupation pattern of the subject was studied 27 % were unskilled workers and 19 % were skilled workers. About 8.5 % were business men and 7 % were professionals. House wives represented 28 % and retired officers were about 10.5 % of the selected subjects.

Scores of CHESQ (Table 2)

The CHES-Q is a 14-item PRO questionnaire designed to assess diabetes-related health satisfaction and knowledge of the disease and important laboratory measures. The CHES-Q includes 14-items containing two psychological constructs including Physical Health Satisfaction (item 1-5 & 13), and Emotional Health Satisfaction (items 6-8). Item 14 is rated on a 5-point scale.

Scoring Instructions for CHES-Q

General Instructions

1. Dichotomize 7-point scales by agree or strongly agree (responses of 6 or 7) versus else (responses of 1-5)
2. Assign a score of 1 for items with responses of 6 or 7 and assign a score of 0 for items with responses of 1-5
3. Sum the number of items with a score of 1 for Physical Health Satisfaction and Emotional Health Satisfaction and divide by the number of items in that domain
4. Knowledge question (Item 14) is given a score of 5.

Physical health satisfaction (Table 2)

From the table it can be interpreted that the subjects scored an average of 3.01± 1.35 out of 6 marks which included weight, energy, appetite, sleep, physical activity, current health status parameters. Diabetes, its complications, and its symptoms in the elderly causes frustration about health condition which is therefore, be expected to affect the patient's quality of life

Emotional health satisfaction (Table 2)

Social interactions with family and friends, attitude and mood were measured for emotional health satisfaction. The score achieved by the subjects upon 3 was 0.575±0.82. Diabetic patients in general have an increased prevalence of depression [7] which is also found in the elderly.[8] Cognitive function has, in a few studies, been found to be affected by hyperglycaemia[9]

Knowledge Score (Table 2)

Although petients had attended diet counselling sessions, they seem to be neglectful and unconcerned about the self-management care practices. Knowledge score was found to be 1.52±0.719. They were unaware of their current blood glucose values and blood pressure with an assumption that their oral hypoglycemic drugs would definitely keep in control their blood sugar and blood pressure.

The results of the present study are also supported by findings from Israel, found lower self-reported health among diabetics, lower self-reported health was associated with a more frequent reporting of chronic disease[10]

In conclusion, type II diabetic patients had a meagre health satisfaction especially regarding weight, appetite, sleep and physical functioning. Insulin therapy, obesity, and complications were linked with lower health satisfaction independent of age and sex. Their accomplishments of daily life were impaired both by physical and by emotional disturbances. If preventive measures like therapeutic interventions, diet counselling, weight management could postpone or prevent obesity, insulin use, and complications, significant health satisfactions could be attained.

List of Tables

Table I

Demographic Profile	
Age	Percent
40- 44	13
45-49	9
50- 54	32
55-59	28
>60	18
Total	100
Gender	**Percent**
Male	67

Female	33
Total	100
Education	**Percent**
Illiterate	20
Primary	27
Secondary	46
Graduate	3
Professional	4
Total	100
Occupation	**Percent**
Skilled	30
Unskilled	25
Housewife	32
Retired officers	6
Professionals	7

Table 2: Scores of CHESQ

Sl.No	Concept	Average score	
		Actual score	Maximum score
1	Physical health satisfaction	3.01± 1.35	6
	(Items 1, 2,3,4,5,13)		
2	Emotional health satisfaction	0.575±0.82	3
	(Items 6,7,8)		
3	Knowledge	1.52±0.719	5
	(item 14)		

Conflict of interest

The author does not have any conflict of interest.

Acknowledgement

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