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A study to assess impact on health related quality of life among adults with type 2 diabetes mellitus at selected hospitals of Jabalpur city, with view to develop coping skill training for self-management

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Abstract

Objectives: To assess the impact on health related quality of life among adults with type 2 diabetes mellitus.

Method: Present study was performed in the Golchcha hospital Napier town Jabalpur Madhya – Pradesh. Hospitalized adults or attending opd's. The study population was consisted 80 type 2 diabetes mellitus patients. The study was carried out for one month.

Results: our study showed a total of 44(55.7%) males and 36(44.3%) female, mean age of our study. mean age in our study was 48.72. our study shows that (34.3%) diabetes mellitus adults having any other disease, and total (67.1%) adults with diabetes using inj. Insulin continuously. The D-39 instrument evaluation containing five dimensions, energy and mobility (15), diabetes control (12), anxiety and worry (04), social overload (05) and sexual behaviour (03). Were used.

Conclusion: This study concluded that the quality of life of adults with type 2 diabetes mellitus is clearly affected by the complication and comorbidities associated with type 2 diabetes. Longer study are needed to completely assess the quality of life.

Keywords: Type 2 diabetes mellitus, quality of life, diabetes-39 questionnaire

Introduction

Diabetes mellitus is persistent metabolic anarchy described by hyperglycemia resulting from defects in insulin secretion, insulin action, or in the combination of both. Diabetes mellitus occurs throughout the world but it is common primarily type 2 in developing and developed countries. The incidence of diabetes has been steadily increasing during the last few decades. International diabetes federation guesstimate that virtually 500 million people worldwide are presently living with diabetes, a number that is expected to increase by a further 30% in 2045. Diabetes jointly with its host of micro and macro-vascular complications, is a widespread cause of morbidity, reduced quality of life and early mortality. It is anticipated that nearly 10% of the global all-cause mortality is attributable to diabetes. India has reported a pointed augment in the prevalence of diabetes and pre-diabetes in the past few years in 2019 the projected 77 million Indians were living with diabetes, with an estimated prevalence of 8.9% among adults according to Indian diabetes federation. India has turned into the country with the second largest diabetes inhabitants, with 1 in 6 adults with diabetes in the world impending from India. It is mandatory to precisely understand the urban and rural diversity and drifts in the prevalence of Diabetes in India by a systematic combination of results from individual prevalence studies to understand the up-to date situation and help take appropriate, evidence-based improvement strategies and public health strategies. At present, no studies compare and contrast the rural and urban differences in the prevalence of diabetes and pre-diabetes among Indian adults.

Method

Study was performed in the Seth golchcha hospital Napier town Jabalpur. The study population was consist of 80 adults with type 2 diabetes mellitus patients attending opd's and also hospitalized. This study was carried out for one month. This study was carried out in patients over the age of 18 years and who gave consent to participate in the study, To obtain the information related to the study population, a form was provided to which include the

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Sociodemo-graphic data such as gender, age, education, duration other complications, used diabetes drugs, number of visit per year. The second form was the D-39 assessment questionnaire which was translated into the local language if needed for the participants. This instrument was used as it was easy to administered and easy to understand and it was based on Likert scale which uses a 7 point category such as unaffected and very much affected as the highest and the lowest values based on previous research. Research will be analyzed by excel software.

Result

Our study showed a total of 44(55.7%) males and 36(44.3%) female, mean age of our study. mean age in our study was 48.72. our study shows that (34.3%) diabetes mellitus adults having any other disease, and total (67.1%) adults with diabetes using inj. Insulin continuously. The D-39 instrument evaluation containing five dimensions, energy and mobility (15), diabetes control (12), anxiety and worry (04), social overload (05) and sexual behaviour (03). Were used.

Table 1: Percentage distribution of adults with type 2 diabetes mellitus according to the responses to the items of the five dimensions of D-39. On seven point scale.

Q. No	Item	N% Unaffected	Mildly Affected	Partially Affected	Affected	Strongly Affected	Severely Affected	Very Severely affected
		1	2	3	4	5	6	7
First Dimension Energy and Mobility								
1	Limited energy level	96(12.0)	236(29.5)	160(20.0)	182(22.8)	61(7.6)	43(5.4)	22(2.8)
2	Other health problems beside diabetes.	147(18.4)	151(18.9)	159(19.9)	215(26.9)	93(11.6)	23(2.9)	12(1.5)
3	Feeling of weakness.	60(7.5)	187(23.4)	219(27.4)	180(22.5)	110(13.8)	21(2.6)	23(2.9)
4	Restriction on how far you can walk.	127(15.9)	146(18.3)	161(20.1)	144(18.0)	149(18.6)	27(3.4)	46(5.8)
5	Need to perform exercise regularly	138(17.3)	243(30.4)	162(20.3)	152(19.0)	88(11.0)	5(6.0)	12(1.5)
6	Loss of blurring of vision	98(12.3)	240(30.0)	115(14.4)	217(27.1)	106(13.3)	24(3.0)	00(0.0)
7	Not being able to do what you want.	167(20.9)	149(18.6)	204(25.5)	121(15.1)	105(13.1)	52(6.5)	2(0.3)
8	Other health problem beside diabetes.	81(10.1)	138(17.3)	139(17.4)	279(34.9)	77(9.6)	61(7.6)	25(3.1)
9	Other illness beside diabetes.	99(12.4)	147(18.4)	221(27.6)	155(19.4)	111(13.9)	41(5.1)	26(3.1)
10	Complications from your diabetes.	95(11.9)	140(17.5)	211(26.4)	232(29.0)	39(4.9)	57(7.1)	26(3.3)
11	Not being able to do housework or other jobs around the house	75(9.4)	195(11.9)	197(24.6)	236(29.5)	158(19.8)	13(1.6)	26(3.3)
12	Needing to rest often.	192(24.0)	57(7.1)	136(17.0)	313(39.1)	67(8.4)	22(2.8)	13(1.6)
13	Problem in climbing stairs or walking up steps.	84(10.5)	110(13.8)	172(21.5)	339(42.4)	69(8.6)	14(1.8)	12(1.5)
14	Having trouble caring for you.	43(5.4)	68(8.5)	224(28.0)	299(37.4)	108(13.5)	57(7.1)	01(0.1)
15	Restless sleep.	163(20.4)	89(11.10)	166(20.8)	282(35.3)	54(6.8)	45(6.8)	01(0.1)
Second Dimension								
16	Walking more slowly than others	103(12.9)	162(20.3)	208(26.0)	244(30.5)	78(9.8)	02(0.3)	03(0.4)
17	Your diabetes medication schedule.	163(20.4)	111(13.9)	110(13.8)	223(27.9)	145(18.1)	32(4.0)	16(5.0)
18	Following a prescribed treatment. Dietary restrictions.	221(27.6)	67(8.4)	133(16.6)	294(36.8)	71(8.9)	12(1.5)	02(0.3)
19	Having diabetes.	86(10.8)	92(11.5)	160(20.0)	250(31.3)	173(21.6)	19(2.4)	20(2.5)
20	Losing control over sugar level.	131(16.4)	147(18.4)	115(14.4)	287(35.9)	42(5.3)	76(9.5)	02(0.3)
21	Having to test sugar level.	108(13.5)	141(17.6)	197(24.6)	299(37.4)	40(5.0)	14(1.8)	01(0.1)
22	Time required for control.	162(20.3)	174(21.8)	101(12.6)	168(21.0)	139(17.4)	53(6.6)	03(4)
23	Trying to keep diabetes control.	119(14.9)	133(16.6)	165(20.6)	228(28.5)	96(12.0)	46(5.8)	13(1.6)
24	Keeping track sugar level.	140(17.5)	199(24.9)	109(13.6)	211(26.4)	135(16.9)	02(0.3)	04(0.2)
25	Needing to eat at regular intervals.	149(18.6)	167(20.9)	180(22.5)	166(20.8)	80(10.0)	57(7.1)	01(0.1)
26	Having an organized routine due to diabetes.	104(13.0)	186(23.3)	168(21.0)	199(24.9)	97(12.1)	45(5.6)	46(6.6)
27	Diabetes in general	193(24.1)	104(13.0)	108(13.5)	216(27.0)	128(16.0)	51(6.4)	00(0.0)
Third Dimension, Anxiety And Worry								
28	Concerns related to financial issues.	72(9.0)	197(24.0)	103(12.9)	328(41.0)	47(5.9)	52(6.5)	01(0.1)
29	Concern about your future.	70(8.8)	129(16.1)	215(26.9)	247(30.9)	101(12.6)	25(3.1)	13(1.6)
30	Stress or pressure in your life.	92(11.5)	159(19.9)	102(12.8)	299(37.4)	124(15.5)	13(1.6)	11(1.4)
31	Feeling of sadness or depression.	71(8.9)	70(8.8)	184(23.0)	306(38.3)	140(17.5)	28(3.5)	01(0.1)
Fourth Dimension, Social Overload								
32	Restrictions from diabetes regarding family and friends.	238(29.8)	88(11.0)	150(18.8)	269(33.6)	44(5.5)	11(1.4)	00(0.0)
33	Embarrassment at having diabetes.	187(23.4)	147(18.4)	187(23.4)	178(22.3)	93(11.6)	05(0.6)	03(0.4)
34	Doing things that family and friends do not.	154(19.3)	125(15.6)	147(18.4)	240(30.0)	108(13.5)	26(3.3)	00(0.0)
35	Being called diabetic.	207(25.9)	200(25.0)	128(16.0)	136(17.0)	121(15.1)	08(1.0)	00(0.0)
36	Having diabetes interfere with your family life.	253(31.6)	175(21.9)	154(19.3)	186(23.3)	11(1.4)	08(1.0)	13(1.6)
Fifth Dimension Sexual behavior								
37	Diabetes interferes with your sex life.	284(35.5)	181(22.6)	106(13.3)	157(19.6)	43(5.4)	28(3.5)	01(0.1)
38	Problem with sexual function	237(29.6)	142(17.8)	155(19.4)	184(23.0)	16(2.0)	66(8.3)	00(0.0)
39	Decreased interest in sex.	237(29.6)	170(21.3)	113(14.1)	178(22.3)	20(2.5)	43(5.4)	39(4.9)

Table 01 - Table shows, percentage distribution of adults with type 2 diabetes mellitus according to the responses to the items of the five dimensions of D-39. The above mentioned table shows percentage distribution of adults with type 2 diabetes mellitus according to the responses to the items of the five dimensions of the D-39 on seven point scale. In column 01 and 07 the lowest and highest values obtained at each end of the scale can be seen i.e quality of life unaffected and very much affected, the values above 50% of subjects being considered significant in relation to the dimension one energy and mobility dimension of the D-

39(item 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15). None of the values were significant, only for item number, 13 problem in climbing stairs or walking up steps is (42.4%) is affected whereas, question no 12, needing to rest often (39.1%) s affected, item number, 08 other health problem beside diabetes (34.9%) is also affected. the rest of the questions in dimension 01 were in range of 26.0-84.0.

Regarding the dimension-02 diabetes control in D-39 instrument: In relation to energy and mobility, dimension none of the values were significant, although in (item no,

16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27) there are item no. 18, Following prescribed treatment dietary restriction percentage of subject (36.8%) is affected, item number 20 losing control over sugar level (35.9%), is also affected. the rest of the questions in dimension 02 were in range of 18.0-69.0.

Regarding the dimension 03

In relation to the dimension no 03, there are none of the values were significant, in anxiety and worry in d-39 instrument. (Item number 28, 29, 30, and 31). In total four item no28 Concerns related to financial issues is (41.0%) is highly affected, item no 31 Feeling of sadness or depression. is (38.3%), is also affected item number 30, stress or pressure in your life is (37.4) is affected, the rest of the questions in dimension 03 were in range of 6.0-22.0.

Regarding the dimension 04

In relation to the dimension no 04 social overload, there are none of the values were significant in D-39 instrument. Item number 32, 33, 34, 35, 36 in total item o5, item no 32, restriction from Diabetes regarding family and friends subjects percentage 33.6% is affected of patients with type two diabetes mellitus item number 36 Having diabetes interfere with our family life 31.6 is unaffected. The rest of the questions in dimension 04 were in range is 6.0 to27.0.

Regarding the Dimension - In relation to the dimension no 05 sexual behavior there are in

Item number 37, 38, 39 in dimension 05, item 37 Diabetes interferes with your sex life percentage is 31.4%, is unaffected also the item number 39, Decreased interest in sex life is (29.6) is highest score means unaffected. The rest of the questions in dimension is 3.0 -18.0.

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