A Study to Assess the Compliance Regarding Self Care Management Among Type-2 Diabetes Mellites Patient at Selected Area of Dadra and Nagar Haveli

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ABSTRACT:

Introduction: Diabetes is a chronic disease that can be self-managed and control the disease and its adverse consequence. Diabetes is an important public health problem of India. studies have shown that increase in patients' knowledge regarding the disease result in better compliance. The prevalence of diabetes is predicted to double globally from 171 million in 2000 to 366 million in 2030 with a maximum increase in India.

Aim: The aim of the study was to assess the compliance regarding self-care management of among type-2 diabetes mellites patient at selected area of Dadra and Nagar haveli.

Method: This in study quantitative descriptive research design was used. A total 100 respondent who met the sampling criteria were selected by purposive sampling technique. The data were collected using self-Questionnaire on compliance.

Result: Result showed that 63% had moderate compliance on self-care management whereas only 37% had good compliance among patient with type-2 DM.

Conclusion: The study concluded that the assessment of the compliance on self-care management among Type-2 DM need to be addressed.

Keywords: Assess, Compliance, Self-Care Management, Type-2 DM.

INTRODUCTION:

- Diabetes is fast gaining status of a potential epidemic in India with more than 62 million diabetic individuals currently diagnosed with the disease.

- In 2000, India (31.7 million) topped the world with the highest number of people with diabetes mellitus followed by China (20.8 million) with the United States (17.7 million) in second and third place respectively.

- The prevalence of diabetes is predicted to double globally from 171 million in 2000 to 366 million in 2030 with a maximum increase in India. It is predicted that by 2030 diabetes mellitus may afflict up to 79.4 million individuals in India, while China (42.3 million) and the United States (30.3 million) will also see significant increases in those affected by the disease. India currently faces an uncertain future in relation to the potential burden that diabetes may impose upon the country.

- Diabetes is a serious public health problem that threatens the quality of life of patients with diabetes, the success of long-term maintenance therapy for diabetes depends largely on the patients' compliance with a therapeutic plan.

NEED OF THE STUDY :

- According to WHO diabetes is an iceberg disease. Although increase in both the prevalence and incidence of type-2 diabetes have occurred globally, they have been especially dramatic in societies in economic transition, in newly industrialized countries. Currently the number of cases of diabetes worldwide is estimated to be around 347 million of the these more than 90 percent are type -2 DM.
- A study done at a midwestern metropolitan area medical centre showed that the incidence of type 2 diabetes increased 10-fold in their adolescent population between 1982 and 1994 . Because of the magnitude of the burden of disease, the Healthy People 2010 objectives include goals of reducing diabetes-related deaths and increasing the monitoring frequency of glucose control and chronic complications . Type 2 diabetes mellitus is a public health problem affecting an estimated 65 million Indians with an increasing trend in both urban and rural India.

OBJECTIVES

- To assess the compliance of self-care management among type-2 diabetes mellitus patient.
- To find out the association between compliance of self-care management of type-2 diabetes mellitus patient with demographic variables.

HYPOTHESES

- H_1: There will be lack of compliance regarding self-care management of diabetes millets.
- H_2:There will be a significant association between   compliance on   self-care management among type-2DM with their selected demographic variables at 0.05 level significance.

ASSUMPTIONS:

There will be lack of compliance regarding self-care management of diabetes millets among type -2 DM patients.

Quantitative research approach was used to assess the compliance regarding self-care management of diabetes mellitus among patients with Type II DM.

RESEARCH DESIGN/METHOD: In this study descriptive research design was used to assess the compliance regarding self-care management of among type-2 DM patient at selected area of Dadra and Nagar haveli. (PHC Randha , Bonta , silly).

VARIABLES

RESEARCH VARIABLES -Compliance on self-care management of type-2 DM patient.

DEMOGRAPHIC VARIABLES -In this study it included Age, Gender, Educational level, Monthly income, Smoking status, other disease (cardiovascular disease, cancer, chronic respiratory disease, cancer) Occupation, Time since diagnosis, Family history of diagnosis, Types of family and type of treatment.

Sampling Criteria :

Inclusion Criteria: The criteria, or standards, set out before a study or Review. Inclusion Criteria are used to determine whether a person can participate in a research study or whether an individual study can be included in a systematic review.

In this study, inclusion criteria for samples Were:

- Type II Diabetic patients.
- Who were attending PHC
- Able to read and understand Gujrati/Hindi.
- Who were 30 years and above.

Exclusion Criteria: The Criteria, or standards, set out before a study or review. Exclusion criteria are used to determine whether a person should participate in a research study or whether an individual study should be excluded in a systematic review. Exclusion criteria help to identify suitable participate.In this study, exclusion criteria for samples were:

- Who were have Diabetes Mellitus during pregnancy.
- Who were not willing to participate in the study.

TOOL FOR DATA COLLECTION:

Data collection tool contain items on the following aspects:

PART 1: Demographic variable

It contains the question of baseline characteristics of students comprising of age, gender, education status monthly income, smoking status, other disease, occupation, time since diagnosis of year family history of DM, type of family, and types of treatment.

PART 2: Structured knowledge questionnaire

A total multiple-choice question were used to assess the level of compliance regarding self care management among type-2 diabetes mellitus .

The question was divided and constructed relevant to the component are as being followed;

o Diet
o Exercise
o Foot care
o Blood sugar
o Identified of complication
o Medication

METHOD OF DATA ANALYSIS :

Data analysis is a systemic organization and synthesis of research data and testing of research hypothesis using this data the obtained data was analyzed by using both descriptive and inferential statistics based on the objective and hypotheses of the study.

1. To compute the data, a master data was prepared by the investigator.
2. Baseline data was analyzed in term of frequency and percentage.
3. The assess the patient with type-2 DM after questionnaire on compliance was calculated but mean, median, standard deviation.

Chi square test was used to find association between compliance and selected baseline characteristics.

The level of significance would be set at $p < 0.05$ levels to test the significance of difference. this level

was often used as a standard for testing the difference.

RESULTS & DATA ANALYSIS :

Section I: To assess compliance regarding self-care management among type-2 diabetes mellitus patients

Section II: Association level of Compliance and selected demographic data.

Section I: To assess compliance regarding self-care management among type-2 diabetes mellitus patients

Table 1: Frequency and percentage wise distribution of patient with type-2 diabetes mellitus based on baseline characteristics. N= 100

Demographic variables	Frequency	Percentage
1.**Age in years**:		
31-40 years	18	18
41-50 years	18	18
51-60 year	32	32
>60 years	32	32
2.**Gender**:		
Male	70	70
Female	30	30
3.**Education Level**:		
Elementary school	20	20
Middle school	16	16
High school	6	6
Bachelor degree	14	14
Post-graduation	32	32
others	12	12
4.**Monthly Income**:		
<9307	50	50
9308-27882	38	38
27883-46474	10	10
46475-69534	2	2
69535-92950	0	0
92951-185894	0	0
>185894	0	0
5.**Smoking Status**:		
No	90	90
Yes	10	10
6.**Other disease**:		
Cardiac disease	0	0

Blood pressure	4	4
Kidney diseases	8	8
Eye diseases	17	17
Other diseases	71	71
7. **Occupation**:		
Legislators, senior officials and managers	0	0
Professional	14	14
Technicians and associate professionals	4	4
Clerks	2	2
Self-employed	66	66
Skilled worker and shop and market sales worker	0	0
Skilled agriculture and fishery works	0	0
Plant and machine operates and assemblers	2	2
Elementary occupation	2	2
Unemployed	10	10
8. **Duration of diagnosis** :		
2 years	0	0
2-5 years	22	22
5-10 years	58	58
>10 years	20	20
9. **Family History of diagnosis:**		
Yes	20	20
No	80	80
10.**Type of family**:		
Nuclear family	14	14
Joint family	82	82
Extended family	4	42

Age wise distribution of the samples from the table no.1 reveals that 18% of the sample belong to age group of 31-40 where as 18% sample belong to the age group of 41-502 belong to the age group of 32% sample belong to the 51-60 and belong to the age group of 32% sample belong to the > 60 year.

Gender wise distribution of respondent of depict that 70% were male and 30% sample were female .

Education wise distribution of sample reveals 20% of samples were elementary school ,whereas 16% of the samples studied up to middle school and 6% of the sample were studied up to high school ,and 14% of sample bachelor degree and 32% of the sample were studied up to post -graduation and 12% of illiterate .

Family monthly income wise distribution of sample depicts that majority 50% of sample were having family monthly income <9307 rupees, whereas 38% of the samples were having family monthly income 93,08-27,882rupees and 10% of the sample were having family monthly income 27,883-46,474 rupees and 2% of sample having family monthly income 46,475-69,534 rupees. None of them were 69,535-92,950 rupees.

Status of smoking wise distribution of sample reveals 90% were no smoking status and 10% were smokers.

Other disease wise distribution of sample None of them were cardiac disease.4% of sample were having hypertension, and 8% of the sample were having kidney disease, and 17% of the sample having eye disease , 71% of the sample were having other disease (cardiovascular disease, cancer, chronic respiratory disease, cancer) .

Occupational wise distribution of sample showed that 14% of samples were professional ,whereas 4% of sample were technicians , 2% of sample were clerks ,and 66% of the sample were skilled worker and shop and market sales worker ,10% of the sample were unemployed .

Time since diagnosis wise distribution of the sample showed that None of them were 2 years,22% of the sample were 2-5 years ,and 58% of the sample were 5-10 years, and 20% of the sample were >10 years .

Type of family wise distribution of sample reveals that 14% of the sample live in nuclear family , whereas 82% of the sample live in joint family ,only 4% of the sample live in extended family.

Type of treatment wise distribution of sample reveals that 4% of the sample taking insulin, And 96% of the sample taking medicine ,and none of them taking other treatment (AYUSH).

Section II: Association level of Compliance and selected demographic data.

Table-2: Components wise Mean, SD and mean% to assess the compliance regarding self care management among type-2 diabetes mellitus patients.

N=100

Component of compliance	Compliance Score			
	Max score	Mean	SD	Mean%
Diets	**21**	13.66	1.22	**65.1**
Exercise	**18**	10.43	1.60	**57.9**
Foot care	**27**	16.98	1.65	**62.8**
Blood sugar level	**21**	12.56	1.27	**59.8**
Complication Identification	**27**	22.92	3.74	**84.9**
Medication	**6**	2	0	**33.3**
Overall	**120**	78.55	4.86	**65.5**

Table-3: Frequency and percentage wise distribution to assess the compliance regarding self-care management among type-2 diabetes mellitus patients at selected area of Dadra Nagar haveli.

N=100

Level of compliance	Compliance score	
	F	**%**
Poor level	0	0
Moderate level	63	63
Good level	37	37

The data presented in table-3 showed that 100% of the sample scored above 63% which indicates moderate level compliance on self-care management of diabetes and below 37% which indicates good level compliance the self-care management type -2 DM.
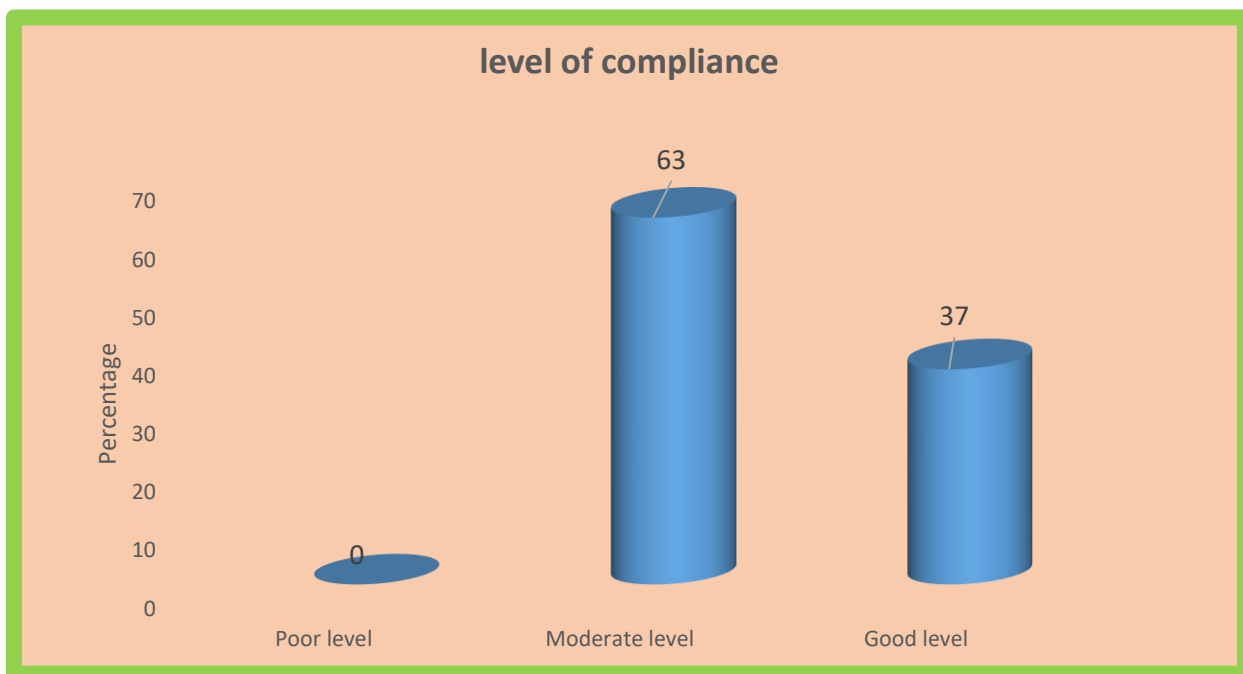
Table 4: Association for level of Compliance and selected demographic data.

N=100

Demographic variables	low		Moderate		High		χ2-value	p-value
	f	**%**	**f**	**%**	**f**	**%**		
1.**Age in years**:							3.31	0.346
31-40 years	0	0	12	12	6	6	(df=3)	NS
41-50 years	0	0	8	8	10	10		
51-60 years	0	0	22	22	10	10		
>60 years	0	0	21	21	11	11		
2.**Gender**:								
Male	0	0	48	48	22	22	3.11	0.078

Female	0	0	15	15	15	15	(df=2)	NS
3.Education Level:								
Elementary school	0	0	14	14	6	6	3.97	0.553
Middle school	0	0	12	12	4	4	(df=5)	NS
High school	0	0	2	2	4	4		
Bachelor degree	0	0	9	9	5	5		
Post-graduation	0	0	19	19	13	13		
Others	0	0	7	7	5	5		
4.Monthly Income:								
<9307	0	0	27	27	23	23	4.81	0.186
9308-27882	0	0	29	29	9	9	(df=3)	NS
27883-46474	0	0	6	6	4	4		
46475-69534	0	0	0	0	0	0		
69535-92950	0	0	1	1	1	1		
92951-185894	0	0	0	0	0	0		
>185894	0	0	0	0	0	0		
5.Smoking Status:								
No	0	0	59	59	31	31	2.52	0.112
Yes	0	0	4	4	6	6	(df=1)	NS
6.Other disease:								
Cardiac disease	0	0	0	0	0	0	4.36	0.225
Blood pressure	0	0	2	2	2	2	(df=3)	NS
Kidney diseases	0	0	3	3	5	5		
Eye diseases	0	0	9	9	8	8		
Other diseases	0	0	49	49	22	22		
7. Occupation:								
Legislators, senior officials and managers	0	0	0	0	0	0		
Professional	0	0	7	7	7	7		
Technicians and associate professionals	0	0	3	3	1	1		
Clerks	0	0	2	2	0	0	8.27	0.218
Self-employed	0	0	41	41	25	25	(df=4)	NS
Skilled worker and shop and market sales worker								
Skilled agriculture and fishery works	0	0	0	0	0	0		
Plant and machine operates and assemblers	0	0	0	0	0	0		
Elementary occupation	0	0	0	0	2	2		
Unemployed	0	0	2	2	0	0		
	0	0	8	8	2	2		
8. Time since diagnosis:								
2 years	0	0	0	0	0	0	0.818	0.664

2-5 years	0	0	15	15	7	7	(df=2)	NS
5-10 years	0	0	37	37	21	21		
>10 years	0	0	11	11	9	9		
9. Family History of diagnosis:								
Yes	0	0	15	15	5	5	1.54	0.214
No	0	0	48	48	32	32	(df=4)	NS
10. Type of family:								
Nuclear family	0	0	8	8	6	6	0.59	0.745
Joint family	0	0	53	53	29	29	(df=2)	NS
Extended family	0	0	2	2	2	2		
11. Type of treatment:								
Insulin	0	0	3	3	1	1	0.257	0.612
Medicine	0	0	60	60	36	36	(df=1)	NS
Diet Control	0	0	0	0	0	0		
Other treatment	0	0	0	0	0	0		

*p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.

CONCLUSION:

The purpose of the study was to assess the compliance regarding self -care management of among types-2 diabetes mellites patient. This would help the patient to understand the level of compliance regarding self care management of type -2 DM. This review revealed that it is clear that the demographic variables were not associated with compliance on self care management. Among all respondents moderate compliance had for 63% and good compliance were there for 37% . Diabetes is an important public health problem of India. studies have show that increase in patients knowledge regarding the disease result in better compliance.

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