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Assess the Quality of Life among the Patients with Chronic Diabetes Mellitus Admitted in Selected Hospitals, at Puducherry in a View to Prepare Self Instructional Module

Dr. Sathiyakala. K[1], Tamilpulavendran. V[2]

[1]College of Nursing, AIIMS, Patna
[2]Asst. Prof. Sri ManakulaVinayagar Nursing College, Puducherry

ABSTRACT

Introduction: The World Health Organization estimates that 347 million people worldwide suffer from diabetes in year of 2017. In the region of Africa, around 20 million are living with diabetes. This figure is expected to double by 2030. In comparison to other world regions, Africa has the highest percentage of undiagnosed diabetes cases reaching 62%and the lowest diabetes related health expenditure. The study was conducted to assess the quality of life among the patients with diabetes mellitus. Methods: A descriptive study was carried out among 200 chronic diabetes mellitus patients in outpatient department of medical and surgical department. Purposive sampling technique was used to enroll the patients who met the inclusion criteria. Data pertaining to demographic variable, clinical variable, psycho social variable and quality of life were collected from the patients. Data were analyzed using chi square test, paired t test. Results: The findings as per the data was 1(0.5%) of them belongs to low quality of life and 199 (99.5%) of them were belongs to better level of quality of life. In association, none of the demographic variables had shown statistically significant association with the level of quality of life. In clinical variables, the significant association between types of complication with the quality of life was found. There is significant different between the quality of life with psychosocial variables such as socio economic status, hours of work and practice of relaxation. Conclusion: Hence, it reveals that chronic diabetes mellitus patients had better quality of life in our setting of the study. It might be duration of diabetes had most of them were more than 10 years, they practiced life style modification based on their blood glucose level and might be practice health diet habits, exercise, walking etc., to achieve the better quality of life. Effective teaching learning activities, life style modification and intensive management of diabetes may have immense effect on good quality of life among Diabetic patients.

Keywords: Chronic Patients, Diabetes Mellitus, Quality of life

INTRODUCTION

Diabetes mellitus is one of the major world health problem of modern society. According to the Diabetes Atlas published by the International Diabetes Federation, around 382 million people suffered from this disease in 2013. Diabetes is a typicalchronic medical condition that places serious constraints on patients' activities. There is a need for extensive education and behavior change to manage the conditions. Lifestylechanges must incorporate careful dietary planning, use of medication, and blood glucose monitoring techniques for all diabetic patients. As a consequence, millions of people with diabetes are at elevated risk of suffering needlessly from serious complications of the disease. The risk of complications is associated with genetics, and it increases with the duration of hyperglycemia. Chronic complications of diseases are responsible for high morbidity and mortality of diabetes and significantly reduce the quality of life of patients.

In International Level, WHO estimates that 347 million people worldwide sufferfrom diabetes in year of 2017. In the region of Africa, around 20 million are living withdiabetes. This figure is expected to double by 2030. In comparison to

other worldregions, Africa has the highest percentage of undiagnosed diabetes cases reaching 62%and the lowest diabetes related health expenditure.

The World Health Organization (WHO) defines Quality of Life (QOL) as anindividual's perception of their position of life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards andconcerns. It is a broad ranging concept affected in a complex way by the person'sphysical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment.

The WHO estimates that diabetes resulted in 1.5 million deaths in 2012 overallthe world, making it the 8th leading cause of death. However another 2.2 million deathsworldwide were attributable to high blood glucose and the increased risks of associatedcomplications (e.g. heart disease, stroke, kidney failure), which often result in prematuredeath and are often listed as the underlying cause of death certificates rather thandiabetes.

As the researcher was working in the clinical sector, he witnessed many patientswith chronic diabetic mellitus are admitted to the hospital due to weight loss, stress,increased urinary excretion, increased thirst, fatigue, blurring of vision, life style changes, lack of coping strategies. Though there are many interventions for the diabetic patients. But the researcher decided to assess the quality of life of the diabeticpatients because most of the person has the lack of knowledge, lack of coping strategies, and follow up practices. Hence the researcher has decided to conduct a study onquality of life among the patients with chronic diabetes mellitus, which will very much useful for the diabetic patients learned by self-instruction module.

Statement of the Problem

"A Study to Assess the Quality of Life among the Patients with Chronic Diabetes Mellitus admitted in selected hospitals ,at Puducherryin aview to prepare self instructionalmodule".

Objectives

• To assess the quality of life among the patients with chronic diabetes mellitus
• To associate the quality of life among the patients with chronic diabetes mellitus with their selected demographic variables, clinical variables and psycho social variables

RESEARCH METHODOLOGY

Quantitative Research Approach was used in this study. The research design used in this study was Descriptive Research Design. The study was conducted in Sri Manakula Vinayagar Medical College and Hospital at Puducherry. The samples were Patients who were attending Medical and Surgical OPD and Inpatients departmentin SMVMCH, who fulfill the inclusion criteria, available during the period of study datacollection. The sample size was 200 Chronic Diabetes Mellitus Patients.Purposive Sampling technique was used to select the samples for this study.

Sample Selection Criteria

Inclusion criteria

Diabetic Mellitus Patients,
• Patients who have diabetic mellitus more than 5 years
• Both male and female diabetic mellitus patients
• Who are all available during the time of data collection

Exclusion criteria:

- Patient with psychiatric illness.
- All Juvenile diabetes mellitus.
- Patient who are critically ill

Description of Tool

The tool used for this study is a standardized tool,
The tool consists of 2 sections namely,

***Section A*: V**ariables, It consists of 3 sub divisions such as,

a. ***Demographic Variables*:** Age, Gender, Religion, Educational Status,Place Of Living, Occupational Status, Marital Status, Monthly Income

b. ***Clinical Variables*****:** Type Of Diabetes Mellitus, Duration Of DiabetesMellitus, Treatment Regimen, Level Of Glucose Control, Presence OfComplication, Type Of Complication, Alternative Medicine

c. ***Psychosocial Variables*****:** Type Of Diet, Socio Economic Status, Nature OfWork, Type Of Work, Hours Of Work, Duration Of Sleep, Family HistoryOf Diabetes, Follow Up Visit, Type Of Family, Alternative Therapy,Family Support, Bad Habits

Section B: Quality Of Life Assessment Scale for Diabetes Mellitus
In this study the standardized scale was used. It consist of 34 questionnaire in basis of 6 Point Likert Scale

Scoring Interpretation Quality Of Life
The score of 0 to 10 was considered as LOW Quality of Life, 11 to 20 was considered as BETTER Quality of Life and the score of 21 to 30 GOOD Quality of Life.

Pilot Study
After obtaining a formal approval from themedical and surgical department, the investigator conducted a pilot study, to test thefeasibility and practicability. The investigator approached the participants, and informedregarding the objectives of the study and obtained the consent after the subjects wereexplained about the confidentiality of the data.Totally 20 patients were selected from in patient medical and surgical wardpatients. For all twenty patients was assessed and data was collected through Quality OfLife Assessment Scale for Diabetes Mellitus The findings were analyzed statistically. The result shows that 60% ofpatients having the low quality of life. The result of the pilot study revealed that the study was feasible andpracticable and no modification made in the tool after pilot study.

Protection of Human Rights
Approval and ethical clearance from the dissertation committee of the institutionprior to conducting pilot study and main study was obtained by the researcher. Formalpermission was obtained from concerned authorities of selected industry. Oral andwritten consent was obtained from samples after explanation regarding the objectives andnature of study and confidentially was maintained throughout the study.

Data Collection Procedure
The formal permission obtained from the concerned authorities. The samples were selected by using purposive sampling technique.The researcher introduced himself and explains about the purposes of the study tothe patients.Each day 3 to 10 samples were selected and the researcher obtained the consentfrom samples.After that the researcher assessed the samples with demographic variables,clinical variables and psychosocial variables.Then the researcher asked the questions from the selected tools to assess the quality of life. The researcher detailed explanation to the questionnaire to the patients and giventhe self-instructional module to learn

The researcher was selected 200 samples in between the 6 weeks of study duration.At last the researcher evaluated the quality of life among the patients with chronic diabetic mellitus. The researcher were administered the self-instructional module in order topromote the awareness regarding improve the quality of life by the researcher own interest.

Plan for Data Analysis
The collected data will be organized by,

1. *Descriptive statistics*
Frequency, percentage, distribution, mean, standard deviation and meanpercentage were used to assess the quality of life among the patients with chronic diabetes mellitus.

2. *Inferential statistics*
a. Chi – square test was used to find out the association of quality of life among the patients with chronic diabetes mellituswith the variables.

Organization of Analyzed Data
Data collected were organized under the following sections.

Section A: Frequency and percentage wise distribution of demographic variables among patientswith chronic diabetes Mellitus.

Section B: Frequency and percentage wise Distribution of clinical variables among patientswith chronic diabetic mellitus.

Section C: Frequency and percentage wise distribution of psychosocial variablesamong patients with chronic diabetes mellitus.
Section D: Mean Standard Deviation and Mean Percentage of quality of life amongpatients with chronic diabetes mellitus.
Section E: Frequency and percentage wise distribution of level of quality of lifeamong patients with chronic diabetes mellitus.
Section F: Association between levels of quality of life with their selecteddemographic variable.
Section G: Association between levels of quality of life with their selected clinicalvariable.
Section H: Association between levels of quality of life with their selectedpsychosocial variable

Major Findings of the Study

The major findings of the study, in selected demographic variables the majority184(92%) of them were aged above 35 years, 107(53.5%) of them were male, 174 (87%) of them were Hindus, 66 (33%) of them were primary school, 101 (50.5%) of them were in rural area, 188(94%) of them were in unemployed, 106(53%) of them were 5001 – 7000.

In quality of life, 1(0.5%) of them were belongs to low quality of life. He is above 35 years of age group with Hindu religion studied upto primary school education. He lived in urban area, married and the family income 7001- 10000 and also heavy active worker and more than 12hrs of work with less sleep hours. He having diabetes mellitus more then 5 – 10years and Insulin dependent and also high glucose level that patient belongs to low quality of life. And 199 (99.5%) of them were belongs to better level.

In clinical variables, the majority 105 (52.5%) of them were non insulindependent DM, 172 (86%) of them were had 5 to 10 years of diabetic mellitus,103(51.5%) of them were taken oral glycemic, 194 (97%) of them were high glucoselevel, 196(98%) of them were presence of complication, 79(39.5%) of them were hadcardiac problems, 174 (87%) of them were had none of the alternative medicine.

In psychosocial variables, 170 (85%) of them were had both vegetarian and nonvegetarian, 181(90.5%) of them were low socio economic status,185 (92.50%) of themwere active workers, 186 (93%) of them were heavy workers, 135 (67.5%) of them were9 to 12 hours of work, 173 (86.5%) of them were 2 to 4 hours of sleep, 138 (69%) ofthem were not known case of family history of diabetes, 145 (72.50%) of them wereregular follow up visit,133 (86 %) of them were nuclear family, 28 (14%) of thempractice of relaxation technique, 196 (98%) of them were inadequate social support,96(48%) of them were had none of the bad habits.

In quality of life, the overall score of quality of life among patients with chronicdiabetic mellitus, the mean value was 15.06, standard deviation was 1.53 and the meanpercentage was 50.

Regarding association between the level of quality of life, none of the demographicvariables had shown statistically significant association with the level of quality of life.The findings shows one male person with age group of above 35years belongsto Hindu religion and studied up to primary school education living in urban area and heis unemployed and the wife is the breadwinner of the family with income of Rs.7001-10000, He belongs to low quality of life as per the data findings.

In clinical variables, there was statistically significance between the quality of life and types of complication.The findings reveals that One male patient belongs to insulin dependent DM with 5to 10years of the period of DM and he is having with insulin treatment and high level ofglucose with the complication of foot ulcer and practice of sidha medicine belongs to the low quality of life as per the data findings. The significant different between the quality of life with psychosocial variablessuch as socio economic status, hours of work and practice of relaxation.

The researcher findings regarding psychosocial variable, one male patient belongs tomiddle socio economic status with practice of mixed diet, and heavy and active workerwith the working duration of more than 12hours and practice of sleep is 2-4hours andwith his mother having diabetes mellitus came for regular visits and lived in joint family with inadequate social support and practice of intake of alcohol.

CONCLUSION

The conclusion of the findings as per the data was in quality of life, 1(0.5%) of them were belongs to low quality of life and 199 (99.5%) of them were belongs to better level of quality of life. In association, none of the demographic variables had shown statisticallysignificant association with the level of quality of life. In clinical variables,

thesignificant association between types of complication with the quality of life was found. There is significant different between thequality of life with psychosocial variables such as socio economic status, hours of workand practice of relaxation.

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The author has declared that there was no funding (Self).

Data Accessibility
The datasets are available from the corresponding author on reasonable request.

Ethical Issues
Formal permission obtained from the Ethical Committee of the institution, Concerned head of the department and study participants. The objectives of the study were explained to the study participants and all of them signed written informed consent forms. They were also assured about the confidentiality of the data.

Conflict of Interests
None

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SECTION - A

Table 1: Frequency and Percentage wise Distribution of Demographic Variablesamong Patients with Chronic Diabetes Mellitus.

(N=200)

Demographicvariables	frequency	Percentage
1.Age (in years):		
a)20-24 years	1	0.5
b)25-30 years	5	2.5
c)31-35 years	10	5
d)Above 35 years	184	92
2.Gender:		
a) Male	107	53.5
b) Female	93	46.5
3.Religion:		
a)Hindu	174	87
b)Muslim	15	7.5
c)Christian	11	5.5
d)Others	0	0
4.Educational status :		
a)Primary school	66	33
b)Secondaryschool	61	30.5
c)Graduate	14	7
d)Illiterate	59	29.5
5.Place of living:		
a) Urban	99	49.5
b) Rural	101	50.5
6.Occupation:		
a) Unemployed	188	94
b) Employee	12	6
7. Marital status:		
a) Married	196	98
b) Unmarried	4	2
8.Income :		
a) 5001 – 7000	106	53
b) 7001 – 10000	55	27.5
c) Above 10001	39	19.5

Table1 reveals that, the frequency and percentage wised is tribute on of selected demographic variables among chronic diabetic mellitus patients.

According to, age only one (0.5%) were belongs to age group of 20 – 24 years,five (2.5%) of them were belongs to age group of 25 – 30 years, 10 (5%) of them werebelongs to age group of 31- 35 years, and majorities of them 184 (92%) were belongs toabove 35 years of age group. Gender 107 (53.5%) of them were belongs to Male, 93 (46.5%) of them were be longs to Female. Religion 174(87%) of them were belongs to Hindu, 15(7.5%) were belongs to Muslim, 11(5.5%) of them were belongs to Christian. Educational Qualification 66(33%) of them were belongs to primary level,61(30.5%) of them were belongs to secondary level, 14 (7%) of them were belongs tograduates, 59 (29.5%) of them were belongs to illiterate. Place of living 99(49.5%) of them were belongs to urban area, 101(50.5%) of them were belongs to rural area. Occupation, 188 (94%) of them were belongs to unemployee, 12(6%) of them were belongs to employee. Maritalstatus, 196(98%) of them were belongs to married, four of them (2%)were belongs to unmarried. Income 106 (53%) of them were belongs to rupees 5001 - 7000, 55 (27.5%) ofthem were belongs to rupees 7001 – 10000, 39 (19.5%)of them were belongs to rupeesabove 10001.

SECTION - B

Table 2: Frequency and Percentage wise Distribution of Clinical Variables amongPatients with Chronic Diabetes Mellitus Patients

(N=200)

Clinicalvariables	frequency	percentage
1.Type of diabetes mellitus :		
a)Insulin dependent DM	94	47
b)Non insulin dependent DM	105	52.5
c)Post gestational DM	1	0.5
2.Duration of diabetes Mellitus:		
a)Below 5 years	1	0.5
b)5 to 10 years	172	86.0
c)More than 10 years	27	13.5
3. Treatment regimen :		
a)Oral glycemic	103	51.5
b)With Insulin	96	48
c)Without insulin	1	0.5
4. Level of glucose control:		
a)Low	5	2.5
b)Normal	1	0.5
c)High	194	97.0
5.Presence of complication:		
a)Yes	196	98
b)No	4	2
6.Type of complication :		
a)Nil	4	2
b)Neuropathy	32	16
c)Retinopathy	50	25
d)Cardiopathy	79	39.5
e)Nephropathy	24	12
Foot ulcer	9	4.5
Surgical condition	2	1.0
Gynecological condition	0	0
7.Alternative medicine:		
a)Sidha	20	10
b)Ayurvedha	1	0.5
c)Homeopathy	2	1
d)Unani	3	1.5
e)None	174	87

Table2: Reveals that, the frequency and percentage wise distribute on of clinical variables among patients with chronic diabetes mellitus.

According to, types of diabetic mellitus 94 (47%) of them were belongs to insulindependent, 105 (52.5%) of them were belongs to non insulin dependent, only one of them(0.5%) were belongs to post gestational. Duration of diabetic mellitus, only one of them (0.5%) were belongs to below 5years, 172(86%) of them were belongs to 5to10years, 27(13.5%) of them were belongs to more than 10 years.

Treatment regimen 103(51.5%) of them were belongs to oral glycemic , 96(48%)of them were belongs to with insulin, only one of them (0.5%) were belongs to without insulin. Level of glucose control, five of them (2.5%) were belongs to low level, only oneof them (0.5%) were belongs to normal level, 194 (97%) of them were belongs to high level. Presence of complication 196 (98%) of them had presence of complication,4(2%) of them had no complication.

Types of complication, four of them (2%) had none of the types of complication, 32(16%) of them were belongs to neuropathy, 50(25%) of them were belongs to retinopathy, 75(39.5%) of them were belongs to cardiopathy, 24(12%) of them were belongs to nephropathy, nine of them (4.5%) were belongs to foot ulcer, two of them (1.0%) were belongs to surgical conditions.

Alternative medicine 20 (10) of them were belongs to sidha, only one of them (0.5%) of them were belongs to ayurveda, two of them (1%) of them were belongs to homeopathy, three of them (1.5%) of them were belongs to unani, 174(87%) of them were belongs to none.

SECTION C

Table3: Frequency and percentage wise distribution of psychosocial variablesamong patients with chronic diabetes mellitus patients

(N=200)

Psychosocial variables	Frequency	percentage
1.Type of diet :		
a)Vegetarian	13	6.5
b)Non vegetarian	17	8.5
c)Mixed	170	85
2.Socio economic status:		
a)Low	181	90.5
b)Middle	18	9
c)High	1	0.5
3.Nature of work :		
Active worker	185	92.50
Sedentary worker	15	7.50
4.Type of worker:		
Heavy worker	186	93
Office worker	14	7
5.Hours of work :		
6-8 hrs	64	32
9-12 hrs	135	67.5
More than 12 hrs	1	0.5
6.Duration of sleep:		
a)2-4 hrs	173	86.5
b)5-7 hrs	27	13.5
c)8-10 hrs	0	0
7.Family history of diabetes		
Yes	62	31
No	138	69
8.Follow up visit:		
Regular	145	72.50
Irregular	55	27.50
9.Type of family;		
a)Nuclear	133	86
b)Joint	67	14
10.practiceof relaxation:		
Yes	28	14
No	172	86
Social support:		
Adequate	4	2
Inadequate	196	98

Bad habits:		
Alcohol	81	40.5
Smoking	19	9.5
Tobacco	4	2
None	96	48

Table 3: reveals that, the frequency and percentage wise distribution of psychosocialvariables among patients with chronic diabetic mellitus patients According to, type of diet 13 (6.5%) of them were belongs to vegetarian, 17(8.5%) of them were belongs to non vegetarian, 170 (85%) of them were belongs to mixed. Socioeconomic status, majority of them181 (90.5%) were be longs to low level,18 (9%) of them were belongs to middle level, only one of them (0.5%) were belongs tohigh level. Nature of work, majority of them 185 (92.50%) were belongs to active worker,15(7.50%) of them were belongs to sedentary worker

Type of worker, majority of them 186 (93%) were belongs to heavy worker, 14(7%) of them were belongs to office worker Hours of work, 64 (32%) of them were belongs to 2–4hours,135 (67.5%) of them were be longs to 9–12hours, only one of them (0.5%) were be longs to more than12 hours.

Duration of sleep, majority of them 173(86.5%) were belongs to 2-4 hours, 27(13.5%) of them were belongs to 5 – 7 hours. Family history of diabetes,62 (31%) of them were belongs to known family history, majority of them 138 (69%) of them were belongs to not a known case of family history.

Follow up visit, majority of them 145 (72.50%) were belongs to regular visits, 55(27.50%) of them were belongs to irregular visits. Type of family, majority of them 133 (86%) of them were belongs to nuclearfamily, 67 (14%) of them were belongs to joint family.

Practice of relaxation 28 (14%) of them were belongs to practice the relaxationtechniques, and majority of them 172 (86%) were belongs to not practicing the relaxation techniques. Social support, four of them (2%) were belongs to adequate support, and majorityof them 196 (98%) were belongs to inadequate support. Bad habits 81(40.5%) of them were belongs to alcohol, 19 (9.5%) of them werebelongs to smoking, four of them (2%) were belongs to tobacco, 96(48%) of them werebelongs to none.

SECTION D

Table4: Mean and standard deviation of quality of life among patients with chronic diabetes mellitus

(N=200)

Quality of life	**MaxScore**	**Range**	**Score**		
			Mean	**SD**	**Mean %**
Overall	30	36-10	15.06	1.53	50

Table 4: the above table shown Mean, SD and Mean% to assess the quality of lifeamong patients with diabetes mellitus reveals that the half of the mean percentage 50% ofthem had average quality of life which was mean score of 15.06±1.53. If can be interpreted that, In this study average level of quality of life was found among Diabetes Mellitus patients

SECTION E

Table5: Frequency and Percentage Wise Distribution of Level of Quality of Life among Patients with Chronic Diabetes Mellitus

(N=200)

Level of quality of life	**Score**	
	f	**%**
Low	**1**	**0.5**
Better	**199**	**99.5**
Good	**0**	**0**
Total	**200**	**100**

Table 5: frequency and percentage wise distribution of level of quality of life amongpatients with chronic diabetes mellitus, it reveals that most all of them 199 (99.5%) werebetter quality of life but none of them were in good. Whereas, only one (0.5%) of themhad low level of quality of life. Hence, it reveals that Chronic Diabetes Mellitus patients had better quality of lifein our setting of the study. It might be duration of DM had most of them were more than10 years, they practiced life style modification based on their blood glucose level and the might be practice Health dietha bits, exercise, walkin getc., to achieve the better quality of life.

SECTION F

Table6: Association between Levels of Quality Of Life with their Selected Demographic Variable.

(N=200)

Demographic variables	Low		Better		Good		$\chi 2$	p-value
	f	%	f	%	f	%		
1.Age (in years):								
a)20-24 years	0	0	1	0.5				
b)25-30 years	0	0	5	2.5			0.087	0.993
31-35 years	0	0	10	5			(df=3)	NS
Above 35 years	1	0.5	183	91.50				
2.Gender:								
a)Male	1	0.5	106	53			0.874	0.350
b)Female	0	0	93	46.5			(df=1)	NS
3.Religion:								
a)Hindu	1	0.5	173	86.5				
b)Muslim	0	0	15	7.50			0.150	0.928
Christian	0	0	11	5.5			(df=2)	NS
Others	0	0	0	0				
4.Educational status :								
a)Primary school	1	0.5	65	32.5				
Secondaryschool	0	0	61	30.5			2.04	0.564
Graduate	0	0	14	7			(df=3)	NS
Illiterate	0	0	59	29.50				
5.Place of living:								
a)Urban	1	0.5	98	49			1.03	0.311
b)Rural	0	0	109	50.50			(df=10)	NS
6.Occupation:								
a)Unemployee	1	0.5	187	93.5			0.06	0.80
b)Employee	0	0	12	6			(df=1)	NS
7. Marital status:								
a)Married	1	0.5	195	97.5			0.02	0.886
b)Unmarried	0	0	4	2.0			(df=1)	NS
8.Income :								
a)5001-7000	0	0	106	53				
b)7001-10000	1	0.5	54	27			2.65	0.266
c)Above 10001	0	0	39	19.50			(df=2)	NS
	0	0	0	0				

*-P<0.05, significant and **-P<0.01 &***-P<0.001, Highly significant

Table 6 shows that, majority of them leading better quality of life and only one patient leads poor quality of life. So there is no significant association with the demo graphic variables.

In this table shows one male person with age group of above 35 years belongs to Hindu religion and studied up to primary school education living in urban area and he is unemployed and the wife is the breadwinner of the family with income of Rs.7001-10000, He bad low quality of life.

SECTION G

Table 7: Association between level of quality of life and selected clinical variable

(N=200)

Clinical variables	**Low**		**Better**		**Good**			
	f	**%**	**f**	**%**	**f**	**%**	**χ2**	**p-value**
Type of diabetes mellitus :								
Insulin dependentDM	1	0.5	93	46.5			1.13	0.567
Non insulin dependent DM	0	0	105	52.5			(df=2)	NS
Post gestational DM	0	0	1	0.5				
DurationofdiabetesMellitus:								
Below 5 years	0	0	1	0.5				
5 to 10 years	1	0.5	171	85.5			0.164	0.921
More than 10 years	0	0	27	13.5			(df=2)	NS
3. Treatment regimen :								
Oral glycemic	0	0	103	51.5			1.09	0.580
With Insulin	1	0.5	95	47.5			(df=2)	NS
Without insulin	0	0	1	0.5				
Level of glucose control:								
Low	0	0	5	2.5				
Normal	0	0	1	0.5			0.03	0.985
High	1	0.5	193	96.50			(df=2)	NS
Presence of complication:								
Yes	1	0.5	195	95.5			0.06	0.809
No	0	0	4	2			(df=1)	NS
Type of complication :								
Nil	0	0	4	2				
Neuropathy	0	0	32	16				
Retinopathy	0	0	50	25				
Cardiopathy	0	0	79	39.50				
Nephropathy	0	0	24	12			21.32	02*S
Foot ulcer	1	.5	8	4			(df=6)	
Surgical condition	0	0	2	1				
Gynecologicalcondition	0	0	0	0				
Alternative medicine:								
Sidha	1	0.5	19	9.50				
Ayurvedha	0	0	1	0.5			9.05	0.060
Homeopathy	0	0	2	1			(df=4)	NS
Unani	0	0	3	1.5				
None	0	0	174	87				

Table 7 shows that association between level of quality of life and clinical variables reveal that,there was association found between quality of life and clinical variables, in that the typeof complication is associated with the level of quality of life. In that, 79 patients had Cardiopathy complications, 50 patients had Retinopathy complication, 32 patients hadNeuropathic complication 24 patients had Nephropathic complication and 4 patients hadnone of the complication.It was found by association between quality of life and clinicalvariables were that Type of complication **($\chi 2$=21.32) (p-value= 0.002*)**. It might be setting of the study.

One male patient be longs to insulin dependent DM with 5to10 years of the period of DM and he is having with insulin treatment and high level of glucose with the complication of foot ulcer and practice of sidha medicine and he having the low quality of life.

SECTION H

Table 8: Association between level of quality of life and selected psychosocialvariable

(N=200)

mographicvariables	**Low**		**Better**		**Good**		**$\chi 2$**	**p-value**
	f	**%**	**f**	**%**	**f**	**%**		
Type of diet :								
Vegetarian	0	0	13	6.5			0.17	0.915
Non vegetarian	0	0	17	8.50			(df=2)	NS
Mixed	1	0.5	169	84.50				
2.Socio economicstatus:								
Low	0	0	181	90.5			10.16	06* S
Middle	1	0.5	17	8.50			(df=2)	
High	0	0	1	0.5				
Nature of work :								
Active worker	1	0.5	184	92			0.082	0.775
Sedentaryworker	0	0	15	7.50			(df=1)	NS
Type of worker:								
Heavy worker	1	0.5	185	92.50			0.08	0.783
worker	0	0	14	7			(df=1)	NS
Hours of work :								
6-8 hrs	0	0	64	32			200.0	)1***S
9-12 hrs	0	0	135	67.50			(df=2)	
More than 12 hrs	1	0.5	0	0				
Duration of sleep:								
2-4 hrs	1	0.5	172	86			0.17	0.692
5-7 hrs	0	0	27	13.5			(df=1)	NS
8-10 hrs	0	0	0	0				
7. Family history ofdiabetes								
Yes	1	0.5	61	30.5			2.237	0.135
No	0	0	138	69			(df=1)	NS
Follow up visit:								
Regular	1	0.5	144	72			0.38	0.537
Irregular	0	0	55	27.5			(df=1)	NS
Type of family;								
Nuclear	0	0	133	66.50			1.99	0.158
Joint	1	0.5	66	33.0			(df=1)	NS
10. practiceofrelaxation :								
Yes	1	0.5	27	13.5			6.17	13* S
No	0	0	172	86			(df=1)	

Social support:								
Adequate	0	0	4	2			0.02	0.886
Inadequate	1	0.5	195	97.5			(df=1)	NS
Bad habits:								
Alcohol	1	0.5	80	40			1.48	0.688
Smoking	0	0	19	9.5			(df=3)	NS
Tobacco	0	0	4	2				
None	0	0	96	48				

*-P<0.05 , significant and**-P<0.01 &***-P<0.001 , Highly significant

Table 8: association between level of quality of life and psychosocial variables reveals that, there was association found between quality of life and psychosocial variables, Such as the socio – economic status (**χ2=10.16, p=0.006*)**, hours of work(**χ2=200.0, p=0.001*)**, and practice of relaxation (**χ2=6.17, p=0.013*)**, were significantlyfound association with the quality of life. In socio economic most of them in low socioeconomic status and9–12 hours of work. And most of them not practice of relaxation. It might be setting of the study.

In this regarding psychosocial variable, one male patient belongs tomiddle socioeconomic status with practice of mixed diet, and heavy and active worker with theworking duration of more than 12hours and practice of sleep is 2-4hours and with hismother having DM came for regular visits and lived in joint family with inadequate socialsupport and practice of intake of alcohol.