

**A STUDY TO ASSESS THE
QUALITY OF LIFE AMONG PATIENTS WITH DIABETES
MELLITUS AT SELECTED HOSPITAL, CHENNAI.**



**A PROJECT WORK SUBMITTED TO SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
CHENNAI**

**IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF BACHELOR OF
SCIENCE IN NURSING 2019-2023**



**A STUDY TO ASSESS THE QUALITY OF LIFE AMONG
PATIENTS WITH DIABETES MELLITUS AT
SATHYABAMA GENERAL HOSPITAL, CHENNAI.**



**BY
Mr.ARULSELVAN. R
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**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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2019 - 2023**

CERTIFIED WORK DONE BY

Mr. ARULSELVAN. R

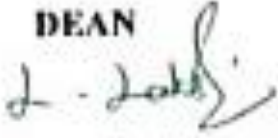
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SCIENCE IN NURSING FROM
SATHYABAMA INSTITUTE OF SCIENCE AND
TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
CHENNAI**

2019 - 2023


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BONAFIDE CERTIFICATE

This is a bonafide work done by **Mr. ARULSELVAN R** and **Ms. ISWARYA S B.sc (N)** III Year Students from Sathyabama college of Nursing, Sathyabama Institute of Science and Technology, Chennai, submitted in partial fulfillment for the Degree of Bachelor of Science in Nursing under the Sathyabama Institute of Science and Technology (Deemed to be University), Chennai.

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This is to certify the dissertation entitled “**A study to assess the quality of life among patients with diabetes mellitus at selected hospital, Chennai**” is a bonafide research work done by **Mr. ARULSELVAN R** and **Ms. ISWARYA S** in partial fulfillment of the requirement for the degree of Bachelor of science in nursing

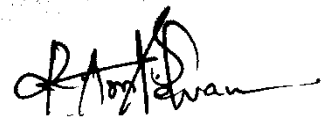

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DECLARATION

We hereby declare that the present project report entitled “Assess the knowledge on preventive practices towards COVID-19 among pregnant women seeking antenatal services at primary health centre, Kanchipuram District, Tamil Nadu”. Is the outcome of the original research work undertaken and carried out by us under the guidance of Mrs.Thivya Msc (N), Sathyabama College of Nursing, Chennai. We also declare that the material of this project report as not formed in anywhere, the basis for the award of any degree in this university or any other university.

BY

(Sathyabama college of nursing)

A handwritten signature in black ink, appearing to read 'S. Iswarya', with a stylized flourish at the end.

S. Iswarya

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“He makes all things beautiful in his time”

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ABSTRACT

The term 'diabetes mellitus' describes a metabolic disorder of multiple etiologies, characterized by chronic hyperglycemia.³ This is associated with disturbances of carbohydrate, fat and protein metabolism, resulting from defective insulin secretion, action or both.⁵ The effects of the disease include; long-term damage, dysfunction and failure of various organs.⁵ Type 2 diabetes mellitus is the most common form of diabetes and is characterized by disorder of insulin action and insulin secretion, either of which may be the predominant feature. ⁵ Both are usually present at the time this form of diabetes is clinically manifest.^{5, 6} People are typically diagnosed with type 2 diabetes after the age of 40 years;⁶ however, there is an increasing prevalence of type 2 diabetes mellitus in children worldwide.¹ Diagnosis of diabetes mellitus is made using the World Health Organization (WHO) guidelines which stipulates a fasting plasma glucose level of ≥ 7.0 mmol/l (126mg/dl) or 2 hour post prandial plasma glucose level of ≥ 11.1 mmol/l (200mg/dl).⁶ In 2007, the International Diabetes Federation estimated that approximately 246 million people worldwide had diabetes mellitus. The number is projected to rise to 266 million in 2030. According to the International Diabetes Federation, diabetes is the fourth leading cause of global death in the world by the disease.

Chronic non-communicable diseases are a major contributor to the burden of disease in developed countries, and are increasing rapidly in developing countries. This is mainly due to demographic transition and changing life style of populations, associated with urbanization. Chronic non-communicable disease are largely due to preventable and modifiable risk factors such as; physical inactivity, unhealthy diet and inappropriate use of alcohol. A study to assess the quality of life among patients with type 2 diabetes mellitus at selected hospitals, Chennai. The objectives are to determine socio demographic variables among the patients with diabetes mellitus at selected hospitals, Chennai to determine the quality of life among patients with diabetes mellitus at selected hospitals, Chennai, a sample 30 peoples were selected in hospital by using

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CHAPTER - I

INTRODUCTION

I AM STRONGER THAN DIABETES. I AM GOING TO BE AROUND. TILL THERE IS A CURE”

“LIFE IS NOT OVER BECAUSE YOU HAVE DIABETES. MAKE THE MOST OF WHAT YOU HAVE, BE GRATEFUL”

Introduction:

Chronic non-communicable diseases are a major contributor to the burden of disease in developed countries, and are increasing rapidly in developing countries. This is mainly due to demographic transition and changing life style of populations, associated with urbanization. Chronic non-communicable disease are largely due to preventable and modifiable risk factors such as; physical inactivity, unhealthy diet and inappropriate use of alcohol. These factors result in various long term disease processes, culminating in high mortality rate. The high mortality rate are attributable to stroke, obstructive lung disease, diabetes and many other chronic non-communicable diseases. There is also a surge in sedentary life style and reduced energy expenditure with utilization of labour saving devices like motorized transportation. The most significant non-communicable diseases are cardiovascular disease (CVD), chronic respiratory diseases, cancer and diabetes mellitus.

The term ‘**diabetes mellitus**’ describes a metabolic disorder of multiple etiologies, characterized by chronic hyperglycaemia. This is associated with disturbances of carbohydrate, fat and protein metabolism, resulting from defective insulin secretion, action or both. The effects of the disease include; long-term damage, dysfunction and failure of various organs. Type 2 diabetes mellitus is the most common form of diabetes and is characterized by disorder of insulin action and insulin secretion, either of which may be the predominant feature. Both are usually present at the time this form of diabetes is clinically manifest. People are typically diagnosed with type 2 diabetes after the age of 40 years; however, there is an increasing prevalence of type 2 diabetes mellitus in children worldwide. Diagnosis of diabetes mellitus is made using the World Health Organization (WHO) guidelines which stipulates a fasting plasma glucose level of ≥ 7.0 mmol/l (126mg/dl) or 2 hour post prandial plasma glucose level of ≥ 11.1 mmol/l (200mg/dl).

In 2007, the International Diabetes Federation estimated that approximately 246 million people worldwide had diabetes mellitus. The number is projected to rise to 266 million in 2030. According to the International Diabetes Federation, diabetes is the fourth leading cause of global death in the world by the disease.

The disease's description has accompanied the human race throughout the centuries. It is found in medieval Persia in Avicenna's *The Canon of Medicine*, in the Roman Empire with Galen describing two cases of diabetic patients during his career[2]. Diabetes was also introduced into Korean and Japanese medicine under the Chinese name *tángniàobìng*, meaning "**sugar urine disease**". Although diabetes has been recognized since antiquity, pathogenesis of the disease was understood about **1900** while insulin was discovered by Canadians Frederick Banting and Charles Best in **1921** and was first used in **1922**.

Type 2 diabetes, formerly known as **adult-onset diabetes**, is a form of diabetes mellitus that is characterized by high blood sugar, insulin resistance, and relative lack of insulin. Common symptoms include increased thirst, frequent urination, and unexplained weight loss. Symptoms may also include increased hunger, feeling tired, and sores that do not heal. Often symptoms come on slowly. Long-term complications from high blood sugar include heart disease, strokes, diabetic retinopathy which can result in blindness, kidney failure, and poor blood flow in the limbs which may lead to amputations. The sudden onset of hyperosmolar hyperglycemic state may occur; however, ketoacidosis is uncommon.

BACKGROUND OF THE STUDY

- Diabetes Mellitus which has a wide range of effects on the physical, social and psychological aspects of the well-being of a person, is a common and challenging chronic disease that causes a significant rate of morbidity and mortality.
- Diabetes Mellitus is a metabolic disorder resulting from a defect in insulin secretion, insulin action or both.
- Depression among patients with diabetes mellitus is a strong predictor of clinical outcomes, including hospitalization and mortality.

NEED FOR THE STUDY

- The International Diabetics Federation (IDF) reported that in 2015, the disease affected 415 million people worldwide and will rise to 642 million in 2040.
- There are estimated **72.96 million cases** of diabetes in adult population in India.
- The prevalence in urban areas ranges between 10.9% to 14.2% and prevalence in rural India was 3.0-7.8% among population aged 20 years and above with a much higher prevalence among individuals aged over 50 years (INDIAB Study).
- Cost was the most frequently cited barrier, stress and side effects from medications (e.g., hypoglycemia and weight gain).
- Follow the right diet and exercise.
- Therapy burden, and time commitment associated with diabetes management.
- Dizziness because of overdose medications and more urination irritability.

STATEMENT OF THE PROBLEM:

- A study to assess the quality of life among patients with type 2 diabetes mellitus at selected hospitals, Chennai

OBJECTIVE:

- To determine socio demographic variables among the patients with diabetes mellitus at selected hospitals, Chennai
- To determine the quality of life among patients with diabetes mellitus at selected hospitals, Chennai

OPERATIONAL DEFINITION:

STUDY:

Study is the act of learning and spending time discovering information or an academic work or investigation about a particular thing or subject area.

ASSESS:

Assess is to make judgement about quality of life among type 2 diabetes mellitus patients

TYPE 2 DIABETES MELLITUS:

Type 2 diabetes is an impairment in the way the body regulates and uses sugar (glucose) as a fuel. This long-term (chronic) condition results in too much sugar circulating in the bloodstream.

PATIENTS:

A patient is a person who is receiving medical treatment from a doctor or hospital.

HOSPITAL:

The definition of a hospital is a place to get medical attention.

CHAPTER II

REVIEW

OF LITERATURE

Harris and Zimmet, 1999. Type II diabetes greatly out numbers all other forms of diabetes. Patients with NIDDM are not dependant on exogenous insulin for prevention of ketonuria and are not prone to ketosis. However, they may require insulin for the correction of fasting hyperglycaemia if this cannot be achieved with the use of diet or oral agents, and they may develop ketosis under special circumstances such as severe stress precipitated by infections or trauma.

Albright, 1997 The pathogenesis in type II diabetes is that the pancreas produces insulin but the body does not utilize the insulin correctly. This is primarily due to peripheral tissue insulin resistance where insulin-receptors or other intermediates in the insulin signalling pathways within body cells are insensitive to insulin and consequently glucose does not readily enter the tissue leading to hyperglycaemia or elevated blood glucose concentrations.

Nolte and Karan, 2001 Obesity, which generally results in impaired insulin action, is a common risk factor for this type of diabetes, and most patients with type II diabetes are obese.

Gerich, 2001 And will ultimately require multiple anti-diabetic agents to maintain adequate glycaemic control.

Royle & Walsh 1992:597 This is also known as the NIDDM. It results from a decrease in the sensitivity of the cells to insulin and a decrease in the amount of insulin produced. About 90-95% of patients have type II diabetes. This type II diabetes is treated with diet and exercise, and if elevated glucose levels persist, diet is supplemented with oral hypoglycaemic agents. During periods of illness or surgery, individuals who usually control their type II diabetes with diet, exercise and oral agents, may require insulin injections. In some individuals oral agents fail to control hyperglycaemia and insulin injection is required.

Chase, Mandle and Roy (2002:18) They indicate that type II diabetes accounts for 80-90% of all cases and is the significant cause of morbidity in the United States. The complications of type II result in disruption of lifestyle, psychosocial adjustment and health care expenses. It is often treated with diet, exercise, self-monitoring of blood glucose and hypoglycaemic agents/insulin.

Lewis et al (1996:1442) He indicates indicate that there are two subtypes of type II, obese and non obese. Type II has a strong genetic influence but there is no correlation with HLA (Human Leucocytes Antigen) type. Individuals with type II diabetes have a 50% chance of transmitting the disease to their children.

Bain 2001:3; Crowther & Van der Merwe 2001:570; Smeltzer & Bare 1992:1026 The exact mechanisms that lead to insulin resistance and impaired insulin secretion in type II diabetes are unknown. Genetic factors are said to play a role in the development of insulin resistance. In addition, the following risk factors are associated with the development of type II diabetes: age, obesity, stress, depression, family history and ethnic group.

Aleksandra caticdjordjevic published(2014) conducted study on Quality of Life in Type 2 Diabetic Patients. The presence of diabetes mellitus leads to a decrease in life quality in all domains. The average duration of diabetes was 12.76 ± 8.08 years. Figure 1 explains the influence of disease duration on the parameters of quality of life.

K Manjunath Prince Christopher published on (2014) conducted study on Quality of Life of a Patient with Type 2 Diabetes: A Cross-Sectional Study in Rural South India. The mean total score of the QoL scale was 58.05 (95% CI, 22.18–93.88). Domain-wise, 63% had good physical, 69% had good psychological, 27% had good social and 85% had good environmental QoL scores. Males, currently married and those with BMI more than 25 had a statistically significantly better QoL compared to their counterparts.

Reeni John Leena Chaudari Prasanna R Deshpande published on (2019) conducted study on Evaluation of Quality of Life in Type 2 Diabetes Mellitus Patients Using Quality of Life Instrument for Indian Diabetic Patients. Out of 153 T2DM patients, majority were elderly males with mean age of 61.23 ± 11.4 years, married (83%), lower-middle income (57%), urban (51.6%), primary education (46.4%), had diabetes for 5 years or less (42.5%), had positive family history of diabetes (32.6%), and were treated by intensive therapy mainly insulin (41.2%). Statistically significant ($P < 0.05$) association was found between different domains of QoL and family history, hypertension, body mass index, educational status, marital status, income status, treatment, and complications.

CHAPTER - III

METHODOLOGY

STUDY SITE DESCRIPTION

The study was conducted in the general medicine department of the Sathyabama general hospital, Chennai. Sathyabama general hospital is a 80 bed capacity hospital with departments of Medicine, Surgery, Obstetrics and Gynaecology, Radiology, Paediatrics and general medicine. It is accredited for the training of residents in Obstetrics & Gynaecology, Radiology & general medicine by the college of Sathyabama general hospital, Chennai. There are 10 consultant family physicians in the department of family medicine.

The department was accredited by the Sathyabama general hospital for residency training programme in general medicine. Chennai is the capital city of the Indian state of Tamil Nadu.

The state's largest city in area and population as well, Chennai is located on the Coromandel Coast of the Bay of Bengal, and is the most prominent cultural, economic and educational centre of South India.

According to the 2011 Indian census, Chennai is the sixth-most populous city in the country and forms the fourth-most populous urban agglomeration. The Greater Chennai Corporation is the civic body responsible for the city; it is the oldest city corporation of India, established in 1688—the second oldest in the world after London. The city of Chennai is coterminous with Chennai district, which together with the adjoining suburbs constitutes the Chennai Metropolitan Area,[note 1] the 36th-largest urban area in the world by population and one of the largest metropolitan economies of India.

STUDY DESIGN

The study was a cross sectional hospital-based survey, conducted to assess the health-related quality of life of type 2 diabetes mellitus patients attending Sathyabama general hospital, Chennai.

STUDY POPULATION

About 150 patients were seen in the General Out Patient Department of general medicine in Sathyabama general hospital daily during the study period February to May 2022. Consequently, for five working days per week, four weeks per month and for a study period of four months: $150 \times 5 \times 4 \times 4 = 12,000$. This is therefore the general population of the General Out Patient Clinic of the Department of general medicine Sathyabama General Hospital, Chennai. Of the 150 patients per day that attended the General Out Patient Clinic of the Department of General Medicine, about 30 of them per day were diagnosed of diabetes mellitus, hence for the four months period working the number of patients was 30×5 working days per week and four weeks in the month was $(30 \times 5 \times 4 \times 4) = 2400$ patients. The study population was made up of patients already diagnosed with diabetes mellitus for more than one year [with a fasting plasma glucose level of $\geq 7.0 \text{ mmol/l}$ (126 mg/dl) or a 2-hour post prandial plasma glucose level of $\geq 11.1 \text{ mmol/l}$ (200 mg/dl)] attending the General Outpatient Department of the General Medicine department of Sathyabama General Hospital. Those who met the inclusion criteria were recruited for the study. Patients aged 35 years and above were selected due to the fact that 93% of type 2 diabetic patients in this category. The age of these patients were typically above 35 years. Hence age >35 years was chosen as an inclusion criterion for recruitment into the study. The most of their type II diabetic patients to be in the age range of 25-75 years.

INCLUSION CRITERIA

- Patients with type 2 diabetes mellitus; males and females attending Sathyabama General Hospital of the General Medicine Department.
- Patients who consented to the study.
- Patients from 25 years.
- Patients who had been diagnosed with diabetes mellitus for more than a year, by which time the patients would have been stabilized.

EXCLUSION CRITERIA

- Type I diabetes mellitus patients
- Patients with co-morbidities that are not related to the complications
- of diabetes mellitus such as asthma, liver cirrhosis and cancer.

- Obvious concomitant disease that affected the reasoning of the
- patients such as psychotic illness or dementia.

SAMPLING METHOD

The average daily population of the General out-patient clinic of the Department of General Medicine in Sathyabama General Hospital was between 100-120 adult patients. About 30 of them were on the average had type 2 diabetes mellitus. To determine the sampling interval, the following was done.

On the average, 120 adult patients were seen in the General Out-patient Clinic of the department of General Medicine of the Sathyabama General Hospital. Of this number, thirty patients on the average were diagnosed to have type 2 diabetes mellitus.

STUDY INSTRUMENT

FASTING BLOOD GLUCOSE ESTIMATION

Fasting blood samples were taken after an overnight fast of at least 8 hours for determination of blood glucose level. Fasting blood glucose level was estimated using standardized methods at the clinical chemistry department of Sathyabama General Hospital. The anticoagulant used was fluoride oxalate. The plasma of the 3mls of blood collected was used. The glucose oxidase method was used. 10mls of the sample i.e., standard and test was added to 1ml of the reagent in their respective tubes. This was incubated for 10 minutes at 37°C after which the spectrophotometer was blanked (put at zero mark) with the reagent blanked. It was then read at 520nm wavelength. This is illustrated in the table below

Absorbance of Test x concentration of the standard result

Absorbance

The result was expressed in mmol/l. Those with fasting plasma glucose >7.0 mmol/l (126mg/dl) were considered to have poor blood glucose control.

DATA HANDLING AND DATA ANALYSIS

Data were collected by the questionnaires. The questionnaire was conduct, involving 30 type 2 diabetes mellitus patients in the General Medicine. The author collected information on socio-demographic variables, disease characteristics, anthropometric characteristics and quality of life of the patients.

Socio- demographic data included in the analysis were age, gender, marital status, occupation and income. The marital status of the participants was categorized as married orunmarried. The occupation of the participants was categorized as student, private job, government job, business, daily wage workers and nil.

Data was collected on the quality of life of the patients in relation to their socio-demographic variables, and their clinical characteristics. For socio-demographic characteristics, it included the quality of life in relation to age, education, marital status, income, gender, occupation ofthe patients. Data was also collected on the blood glucose level and duration of illness.

The five domain scores were scaled in positive direction higher scores denote better Quality of Life, the scores of items within each domain were used to calculate domain scores.

Summary scores were generated for the World Health Organization Quality of Life Scale using facets in the five domains.

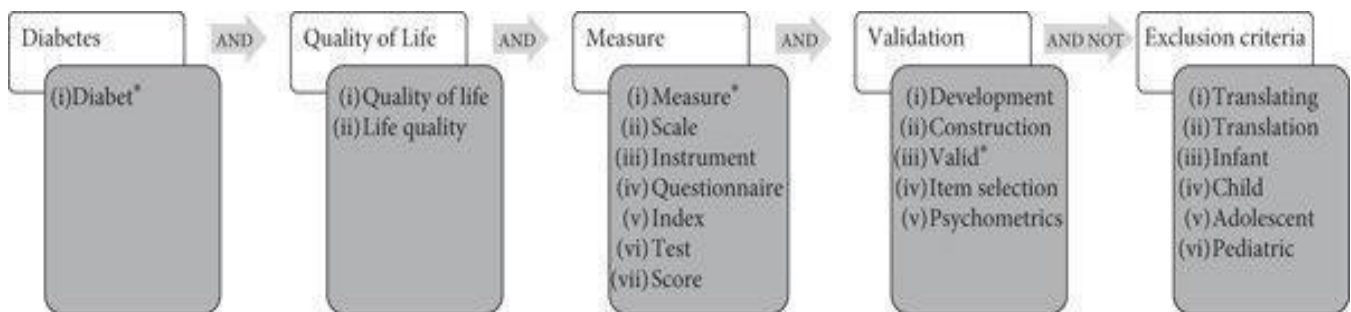
The ordinal scale of:

- 1) Strongly Disagree = 1
- 2) Disagree = 2
- 3) Neutral = 3
- 4) Agree = 4
- 5) Strongly Agree= 5

The scores for a particular patient in a particular domain were expressed as a ratio of the total scores in that. The questionnaires were filled by the respondents. They were collected and voted one after the other. The completed questionnaires were the ones used, while those that were not complete were discarded. Data from the questionnaires were then entered into a personal computer (make; Dell) for scoring and coding. The data was analyzed using a Statistical Package for Social Science (SPSS) version 15. Percentages and proportions were calculated for categorical data. Chi square was used to compare the difference in the proportion between two variables. The results were presented in tables.

DURATION OF THE STUDY

The study was carried out from February to May 2022.



CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

Table 1: Socio Demographic Distribution of the study population:

Age in year	Male	Female	TOTAL	X²	df	P Value
20 – 30	5(16.6)	2(6.6)	7(23.3)	11.24	6	12.59
30 – 40	6(20)	3(10)	9(30)			
40 – 50	7(23.3)	4(13.3)	11(36.6)			
50and above	1(3.3)	2(6.6)	3(10)			
TOTAL	19(63.3)	11(36.6)	30(99.9)			
Occupation						
Student	4(13.3)	1(3.3)	5(16.6)	20.4	10	18.31
Private job	2(6.6)	0	2(6.6)			
Government job	6(20)	1(3.3)	7(23.3)			
Business	2(6.6)	1(3.3)	3(10)			
Daily wage workers	0	1(3.3)	1(3.3)			
Nil	0	12(40)	12(40)			
TOTAL	14(46.6)	16(53.3)	30(99.9)			
Marital Status						
Married	10(33.3)	15(50)	25(83.3)	10.11	2+	5.99
Unmarried	4(13.3)	1(3.3)	5(16.6)			
TOTAL	14(46.6)	16(53.3)	30(99.9)			
Income						
Less than 10,000	2(6.6)	1(3.3)	3(10)			

10,000– 20,000	0	0	0			18.31
20,000– 30,000	6(20)	1(3.3)	7(23.3)	11.5	10	
30,000 – 40,000	4(13.3)	1(3.3)	5(16.6)			
40,000 and above	0	0	0			
Nil	2(6.6)	13(43.3)	15(50)			
TOTAL	14(46.6)	16(53.3)	30(99.9)			

Table 1 shows that the study population had a female preponderance of 53.3% compared to the male 46.6%. Majority of the patients were in the age group 40-50 years, 36.6% and were married 83.8%. Majority of patients in income is nil, 50%. The relationship between gender and the socio demographic variables of age, occupation, marital status and income were statistically significant with P-values of 18.31, 5.99 respectively.

Table 2: Sociodemographic Characteristics In Relation To Level of Blood Glucose Control

N=30

Gender	Good Glucose Control	Poor Glucose Control	TOTAL	X²	df	P Value
Male	2(6.6)	12(40)	14(46.6)	0.5	1	3.84
Female	4(13.3)	12(40)	16(53.3)			
TOTAL	6(19.9)	24(80)	30(99.9)			
Age in year						
20 – 30	1(3.3)	6(20)	7(23.3)	1.2	3	7.82
30 – 40	2(6.6)	7(23.3)	9(30)			
40 – 50	3(10)	8(26.6)	11(36.6)			
50 and above	0	3(10)	3(10)			
TOTAL	6(20)	24(80)	30(99.9)			
Occupation		4(13.3)				
Student	1(3.3)	7(23.3)	5(16.6)	5.2	5	11.07
Private job	0	3(10)	7(23.3)			
Government job	0	1(3.3)	3(10)			
Business	1(3.3)		2(6.6)			
Daily wage workers	0	1(3.3)	1(3.3)			
Nil		8(26.6)				
TOTAL	4(13.3)	24(80)	12(40)			
	6(20)		30(99.9)			

Marital Status						
Married	5(16.6)	20(66.6)	25(83.3)	0	1	3.84
Unmarried	1(3.3)	4(13.3)	5(16.6)			
TOTAL	6(20)	24(80)	30(99.9)			

Table 2 shows that both male and female had poor glucose control 40%. The age group 40 - 50 years had more patients with abnormal blood glucose level 26.6%. The married had more patients with poor glucose control 66.6% The relationship between level of glycemic control and gender, age, occupation and marital status were statistically not significant with P-values of 3.84, 7.82, 11.07 and 3.84 respectively.

Table 3: Sociodemographic Characteristics In Relation To Overall Quality of Life

OVERALL QUALITY OF LIFE

AGE	GOOD	FAIR	POOR	TOTAL	X²	P- d f e 6 9
20 – 30	3(10)	2(6.6)	2(6.6)	7(23.3)		
30 – 40	1(3.3)	3(10)	5(16.6)	9(30)	5.2	
40 – 50	5(16.6)	3(10)	3(10)	11(36.6)		12.5
50 and above	2(6.6)	1(3.3)	0	3(10)		6
TOTAL	11(36.6)	9(30)	10(33.3)	30(99.9)		
Gender						
Male	5(16.6)	6(20)	3(10)	14(46.6)		
Female	6(20)	3(10)	3(10)	16(53.3)	2.5	2
TOTAL	11(36.6)	9(30)	10(33.3)	30(99.9)		5.99

Occupation							
Student	3(10)	1(3.3)	1(3.3)	5(16.6)			
Private job	1(3.3)	4(13.3)	2(6.6)	7(23.3)			
Government job	0	3(10)	0	3(10)	16.7	1 0	18.3 1
Business	1(3.3)	0	1(3.3)	2(6.6)			
Daily wage workers	0	0	1(3.3)	1(3.3)			
Nil	6(20)	1(3.3)	5(16.6)	12(40)			
	(36.6)	9(30)	10(33.3)	30(99.9)			
TOTAL	11						
Marital Status							
Married	8(26.6)	8(26.6)	9(30)	25(83.3)	1.4	2	5.99
Unmarried	3(10)	1(3.3)	1(3.3)	5(16.6)			
TOTAL	11(36.6)	9(30)	10(33.3)	30(99.9)			
Income							
Less than 10,000	2(6.6)	0	1(3.3)	3(10)			
10,000 – 20,000	0	0	0	0			
20,000 – 30,000	2(6.6)	4(13.3)	1(3.3)	7(23.3)	22.3	1 0	18.3 1
30,000 – 40,000	0	3(10)	2(6.6)	5(16.6)			
40,000 and above	0	0	0	0			
Nil	7(23.3)	2(6.6)	6(20)	15(50)			
TOTAL	11(36.6)	9(30)	10(33.3)	30(99.9)			

Table 3 showed the patients of the age 30 – 40 years is 16.6%, in gender female is 23.3%, in occupation in nil 16.6%, in marital status married is 30% and in income in nil 20% have scored the poor in the overall Quality of life. The relationship between age, gender, occupation and marital status of overall quality of life are statistically not significant with p-values 12.59, 5.99, 18.31 and 5.99 respectively. But relationship between income and overall quality of life is statistically significant with p value 18.31 respectively.

Table 4: Sociodemographic Characteristics In Relation To Health Related Quality of Life

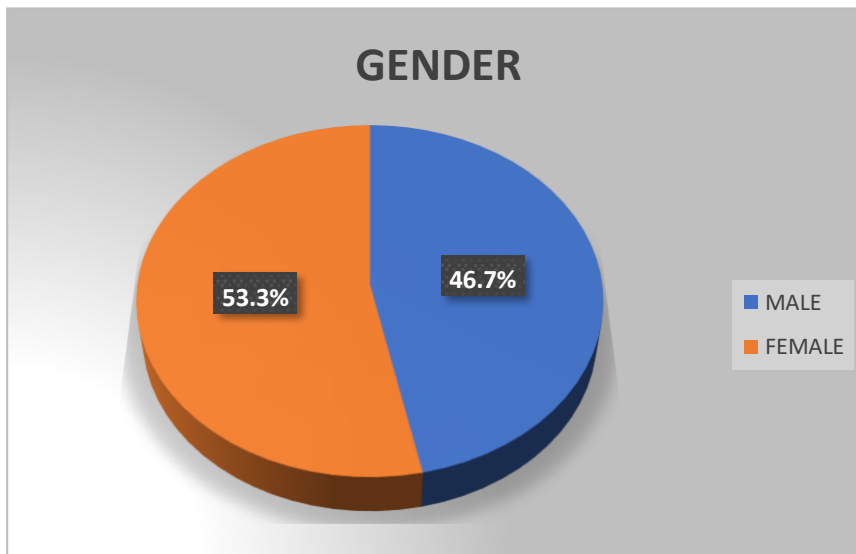
HEALTH RELATED QUALITY OF LIFE							
AGE	GOOD	FAIR	POOR	TOTAL	X²	Df	P-Value
20 – 30	3(10)	2(6.6)	2(6.6)	7(23.3)	5.2	6	12.59
30 – 40	2(6.6)	2(6.6)	5(16.6)	9(30)			
40 – 50	4(13.3)	5(16.6)	2(6.6)	11(36.6)			
50 and above	1(3.3)	0	2(6.6)	3(10)			
TOTAL	10(33.3)	9(30)	11(36.6)	30(99.9)			
Gender					0.45	2	5.99
Male	4(13.3)	4(13.3)	6(20)	14(46.6)			
Female	6(20)	5(16.6)	5(16.6)	16(53.3)			
TOTAL	10(33.3)	9(30)	11(36.6)	30(99.9)			
Occupation					17.2	10	18.31
Student	3(10)	1(3.3)	1(3.3)	5(16.6)			
Private job	0	1(3.3)	6(20)	7(23.3)			
Government job	0	2(6.6)	1(3.3)	3(10)			
Business	1(3.3)	0	1(3.3)	2(6.6)			
Daily wage workers	1(3.3)	0	0	1(3.3)			

Nil	5(16.6)	5(16.6)	2(6.6)	12(40)			
TOTAL	10(33.3)	9(30)	11(36.6)	30(99.9)			
Marital Status							
Married	7(23.3)	8(26.6)	10(33.3)	25(83.8)			
Unmarried	3(10)	1(3.3)	1(3.3)	5(16.6)	2.0	2	5.99
TOTAL	10(33.3)	9(30)	11(36.6)	30(99.9)			
Income							
Less than 10,000	3(10)	0	0	3(10)			
10,000 – 20,000	0	0	0	0			
20,000 – 30,000	1(3.3)	2(6.6)	4(13.3)	7(23.3)	9.9	10	18.31
30,000 – 40,000	0	1(3.3)	4(13.3)	5(16.6)			
40,000 and above	0	0	0	0			
Nil	6(20)	6(20)	3(10)	15(50)			
TOTAL	10(33.3)	9(30)	11(36.6)	30(99.9)			

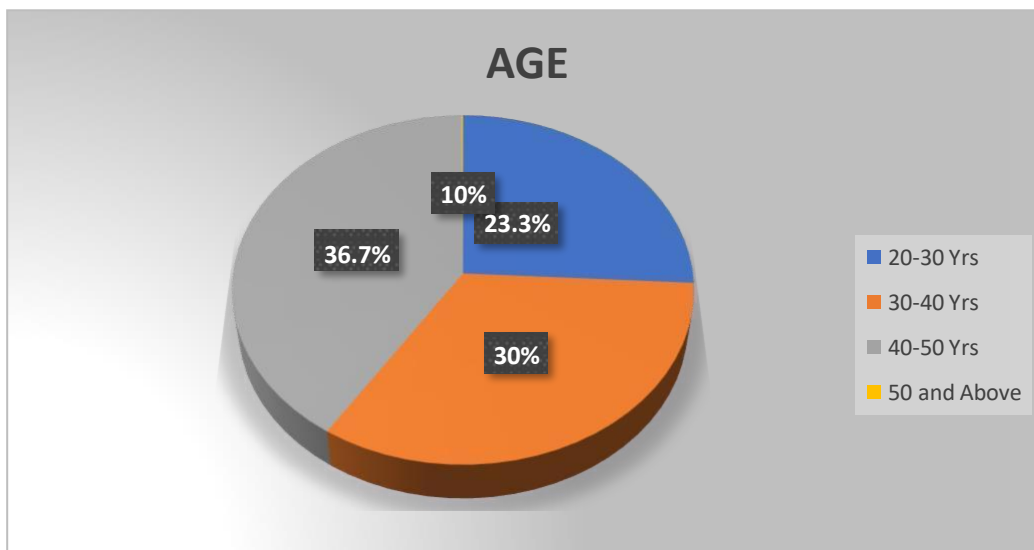
Table 4 showed the patients of the age 30 – 40 years is 16.6%, in gender male is 20%, in occupation in private job 20%, in marital status married is 33.3% and in income in 20,000 – 40,000 is 13.3% have scored the poor in the health-related Quality of life. The relationship between age, gender, occupation, marital status and income of health-related quality of life are statistically not significant with p-values 12.5, 5.9, 18.3, 5.9 and 18.3 respectively.

SOCIO DEMOGRAPHIC DISTRIBUTION OF THE STUDY POPULATION

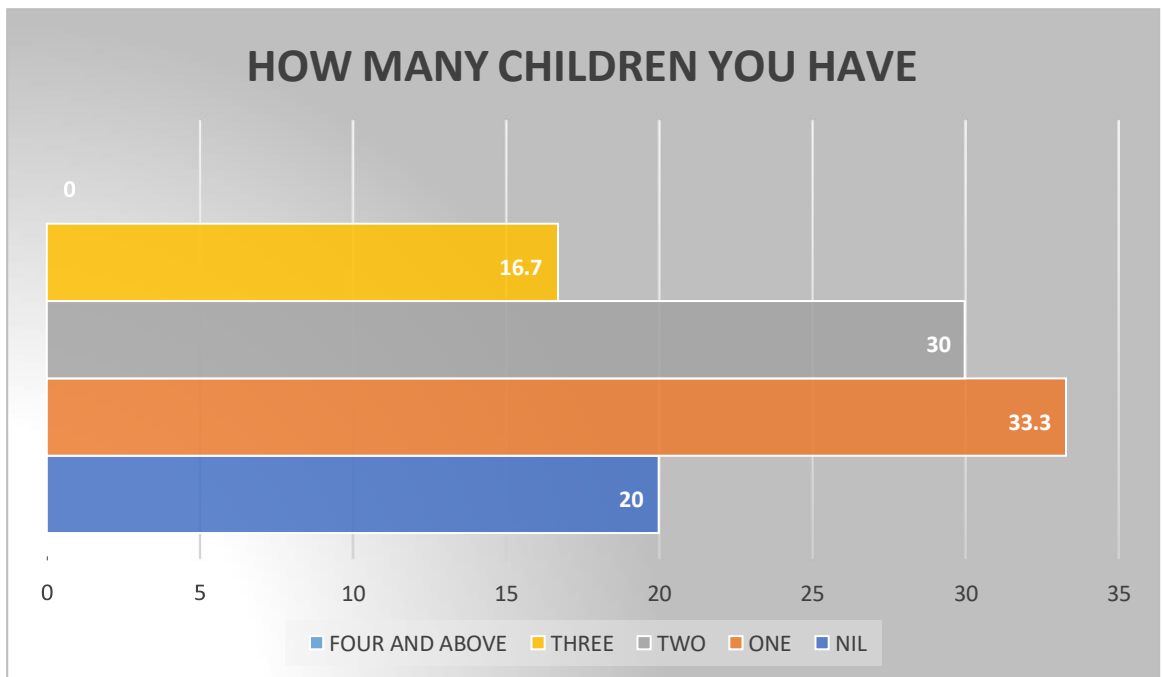
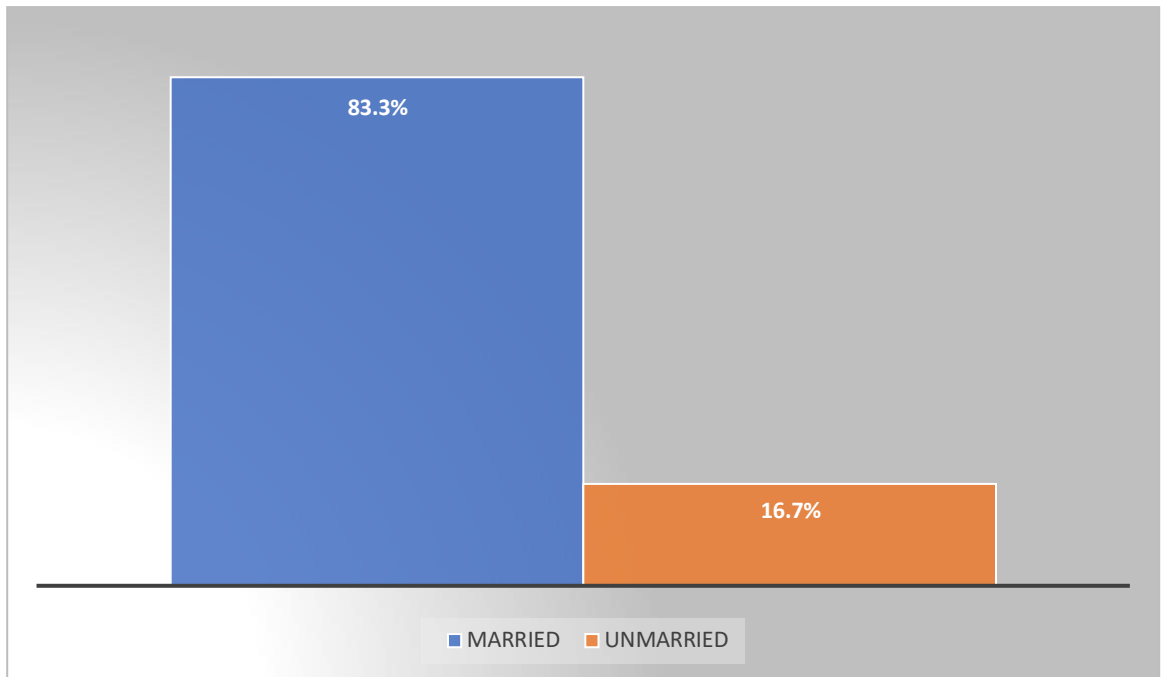
GENDER



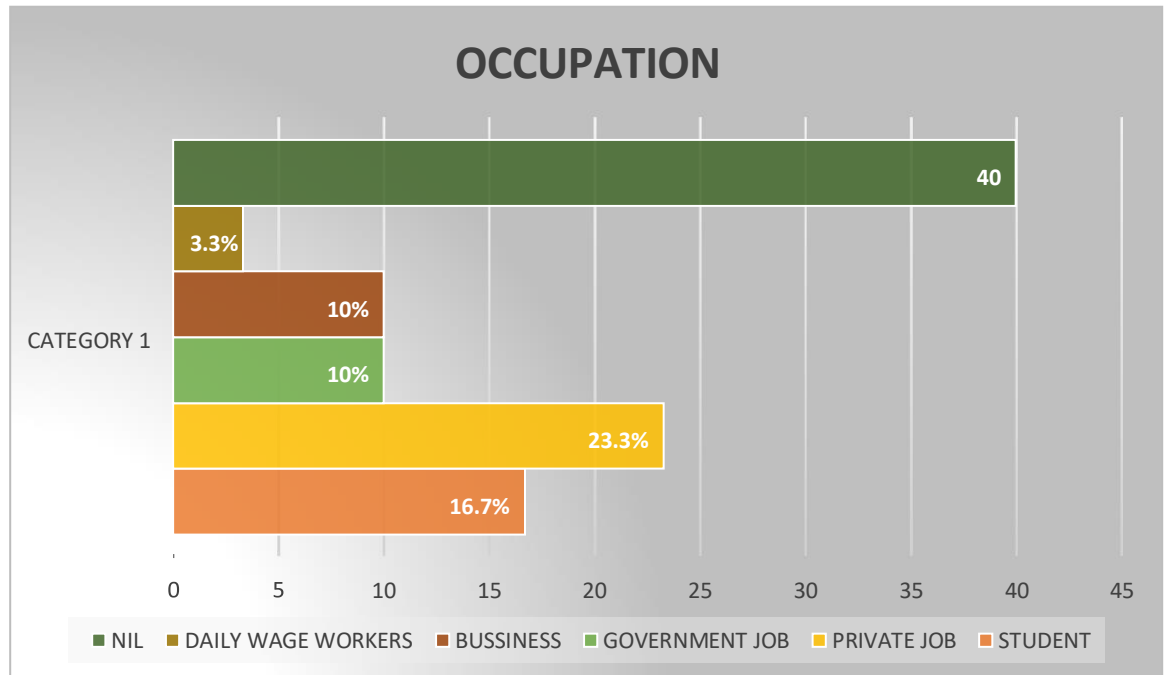
AGE



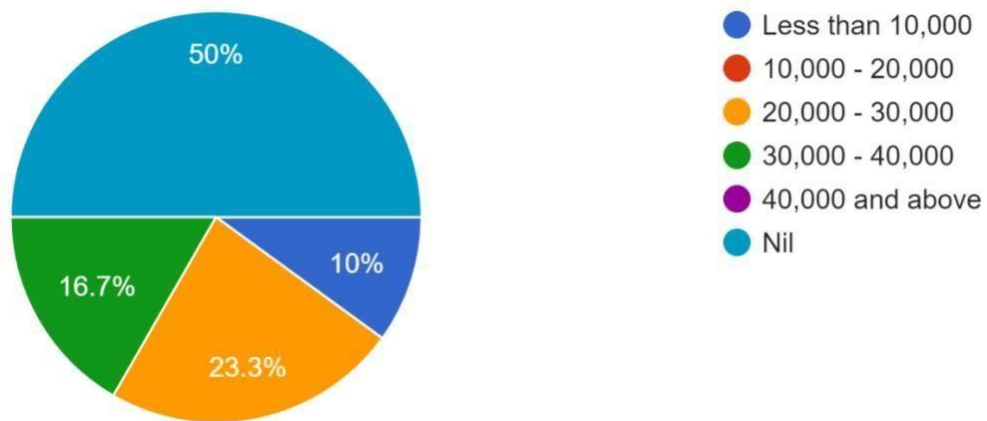
MARITAL STATUS



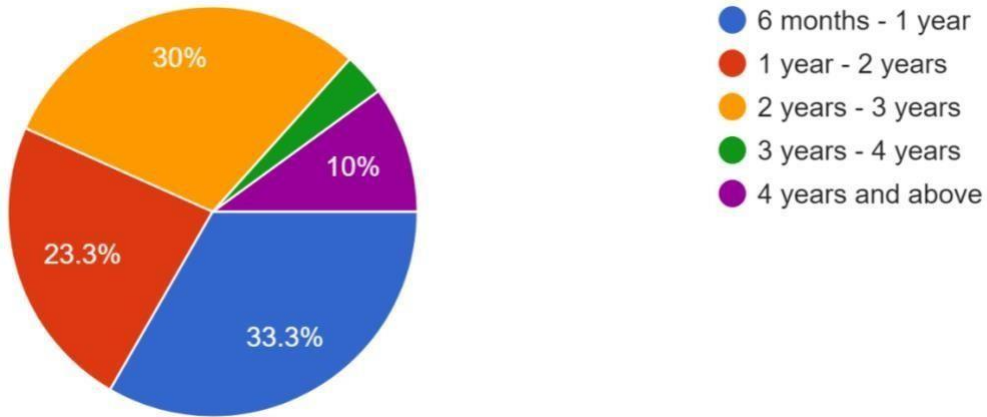
OCCUPATION



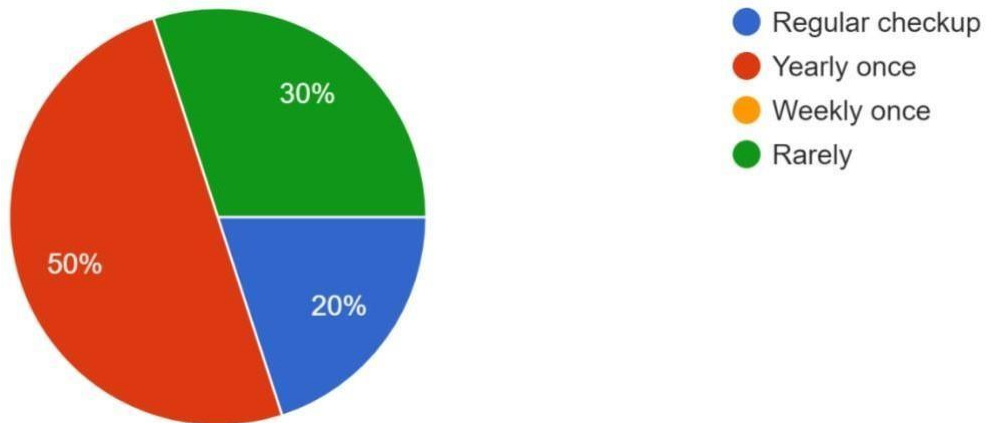
INCOME



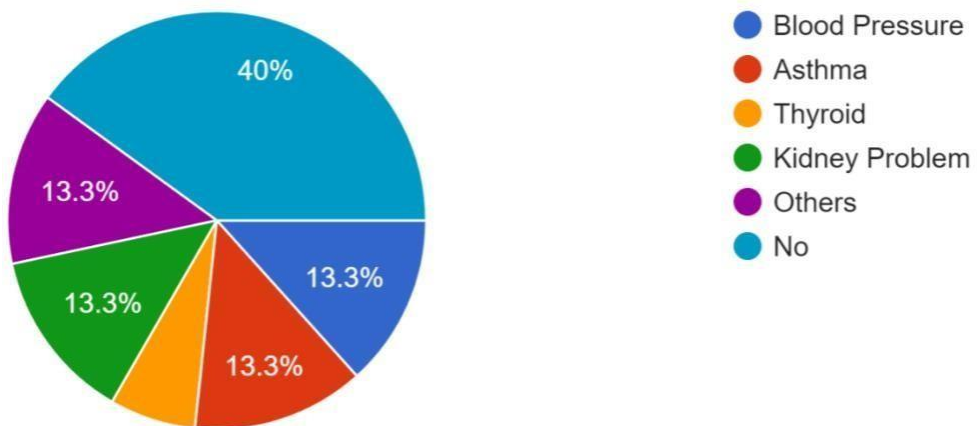
HOW MANY DAYS YOU HAVE DIABETES MELLITUS



WHEN WILL YOU VISIT YOUR DOCTOR



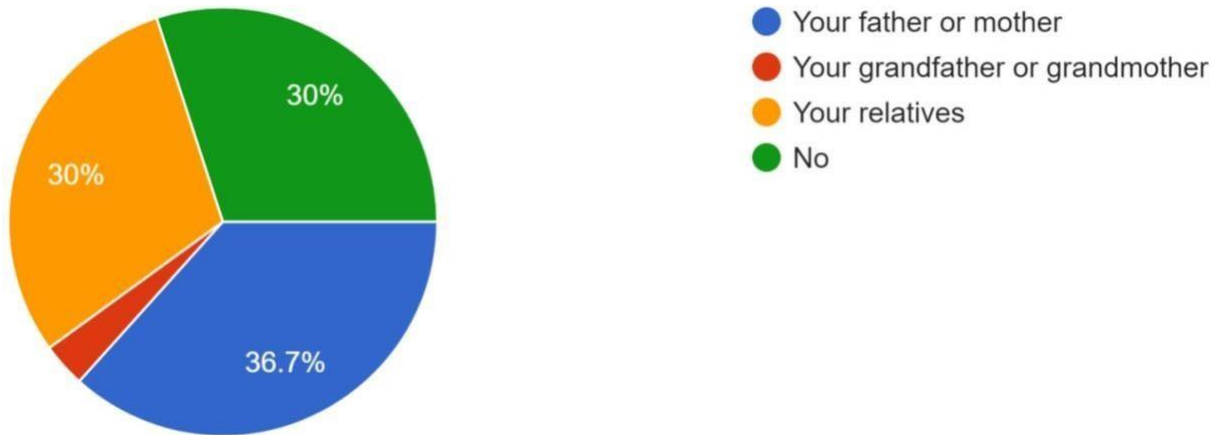
DO YOU HAVE ANY OTHER HEATH PROBLEMS



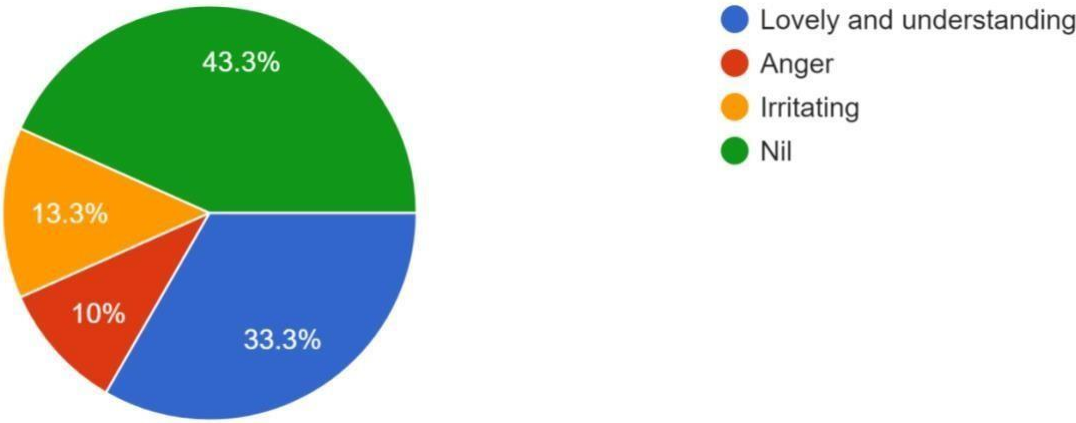
NUMBER OF DIABETIC DRUGS PRESCRIBED BY THE DOCTOR



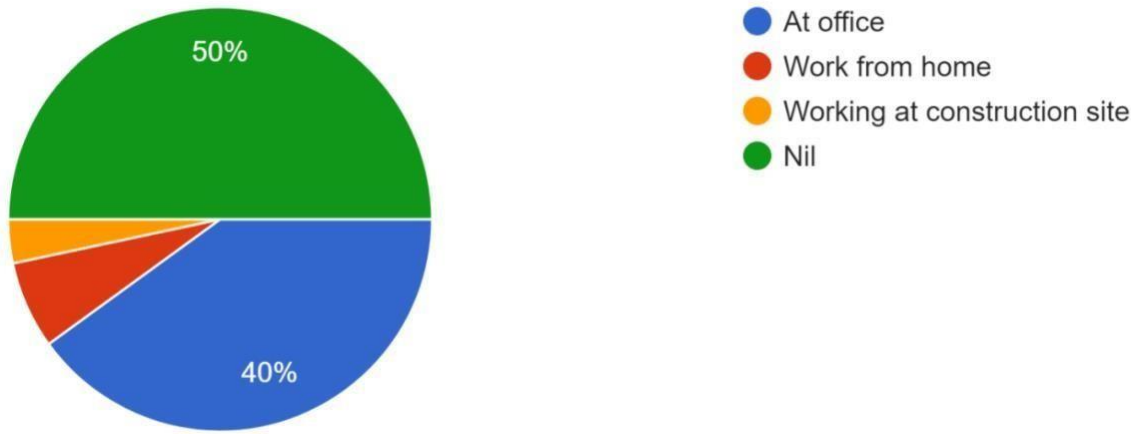
IN YOUR FAMILY ANY OF THEM HAVING DIABETES MELLITUS



HOW YOU BEHAVE TO YOUR SPOUSE



WORKING



CHAPTER - V

DISCUSSION

This study was done to assess the socio-demographic, clinical and anthropometric characteristics of type 2 diabetes mellitus patients attending the General Out Patient Clinic of the Department of general medicine Sathyabama General Hospital. It was also done to determine the relationship between these characteristics and the Quality of Life of the patients using Quality of Life scale given by World Health Organization (WHO).

SOCIO-DEMOGRAPHIC CHARACTERISTICS

AGE

Close to half of the patients 36.6% had their ages between 40-50years' age range. In this 30% of the patients were over 30-40 years of age. In a work done in Singapore 37% of the patients had their ages over 65years. The researchers did not give the reason for their finding. It is also noted that the patients in this age group are still in their productive age. The disease was likely to affect their productive capacity and hence this will in turn has ability to affect their families. The relationship between age and gender was statistically not significant with p-value of 12.59.

GENDER

The result of the study showed that there were more females with diabetes mellitus 53.3 compared to the males 46.6%. The female preponderance in this study could be explained by the health seeking behaviour of the female gender compared to the male gender. In a work in Atlanta, Georgia, USA, the result showed a female preponderance of 65% compared to male 45%. In the work done in Calabar, South-South Nigeria, 57.2% of the patients were females and 42.8% were males. In a multinational study involving several countries including UK, USA, and Sweden that enrolled 1922 respondents, the male respondents with diabetes mellitus were 46.9% while females were 57.1%. Researchers have also suggested that the reason for high female preponderance could be due to their being more obese. Exceptionally, in a cross-sectional study in Singapore, they had a male preponderance of 58%. Even in children with type 2 diabetes mellitus, a preponderance of female respondents was found in Aurora United States with a ratio, males to females, 1:1 respectively. The researchers, however, noted that the ratios were based on studies and opined that the result of that work could be said to have a weak validity. Furthermore, they

noted that the high female's ratio might be due to high undiagnosed cases among the boys, due to their low frequency of medical visit compared to their female counterparts.

MARITAL STATUS

In this study majority of the patients were married 83.8%, as has already been noted the patients were mostly above 40 years. At this age most people would have married. The percentage of those who were married in this study was similar to the work done in Riyadh province in Saudi Arabia, where 81.3% of the patients in the study were married. Another study done in Turkey had the percentage of those married as 87.76%. Marital status in diabetes mellitus is important because the family could assist the patients in managing the disease. This support could be morally or financially.

INCOME

Close to half of the patients 50% were nil(unemployed) . In a cross sectional population based study in Chicago area USA, 20% had a monthly income of less than \$833, while 26% earned between \$833 and \$2083, 34% had a monthly income between \$2083 and \$4166. Those who earned good income were likely to have lived in plenty without a day of famine, with the attendant probable obesity which is a risk factor for diabetes mellitus. Because of no income, it may affect their lifestyle, proper diet, regular doctor check-up and difficult to maintain diabetes.

OCCUPATION

Close to half of the patients 40% were in nil (Unemployed). The reason for this was that the study population were elderly patients, many of whom had retired from the State Civil Service. Also 23.3% in government job. Apart from those whose jobs were pensionable it will be difficult for them to fund their care. This included their prescribed diet, and their transportation to the hospital, they were on free medical services of the State, nevertheless, the hospital pharmacy, did not stock most of their drugs. Researchers in Saudi Arabia noted in their study that 60.2% of the study population were unemployed. They were of the opinion that this fact was a determinant factor in the life style of the diabetic patients because unemployment status was sequential to the amount of income earned by the patients; this also affected the life style adopted by the patients with regards to the illness.

ANTHROPOMETRIC CHARACTERISTICS

BLOOD GLUCOSE LEVEL

The older age groups 30-40 years and 40-50 years had more patients with poor glucose control 30%, and 36.6% respectively, while the youngest age group 50 years had the least number of patients with poor blood glucose control 10%. The reason for this could be that more elderly patients were likely to have also had longer duration of the illness, with smaller pancreatic cell reserve and hence less insulin production and poorer blood glucose control. In a work in Singapore, 31.3% of the respondents had abnormal glycaemic control. Both male and female gender had their blood glucose poorly controlled 40%. In occupation the nil(unemployed), also had more patients with poor glycaemic control, 40%. Obviously they had less money to fund the disease, including the prescribed diabetic diet, their drugs, and logistics including transportation to the hospital. The relationship between blood glucose control and gender, age, occupation and marital status were statically not significant with P-values of 3.84, 7.82, 11.07 and 3.84 respectively. In the work done by Gorien in Turkey, men had better glycaemic control when compared with the female gender. Nevertheless, they did not find any statistically significant relationship between glucose control and gender, the same was found in the present work with P-value of 0.070. In Singapore, males also had better glucose control when compared with the female gender. But, the researchers did not find any statistically significant relationship between gender and level of blood glucose control. More of the obese patients also had poorly controlled blood glucose level. Poor glycaemic control also means more complications.

SOCIO-DEMOGRAPHIC CHARACTERISTICS IN RELATIONTO

QUALITY OF LIFE

QUALITY OF LIFE RATING IN RELATION TO THE AGE OFTHE PATIENTS

Most of the patients in the age 30 – 40 years is 16.6% are poor in quality of life. In a study in Germany, it was noted that increase in age resulted in a decreased Quality of Life, hence age was found to be a determinant of health related Qol.¹⁴⁸ The work in Kuwait that looked at young diabetics also found out that increasing age was correlated with poor health related quality of life.¹⁵⁰ In a cross-sectional study in LatfiKirdar Kartal Turkey, those of

the age group >40years were reported to have better Quality of Life. They did not give reasons for their result. Similarly, in a cross-sectional survey in Manisa Turkey that enrolled only 98 patients, the researchers noted that age was significant only in the environmental domain. The relationship between age and Quality of Life is statistically not significant with p-value 12.59.

QOL RATING IN RELATION TO THE GENDER OF THE PATIENTS

The result of the study shows, Most of the patients in gender female is 23.3% and male is 10% are poor in quality of life. In Saudi Arabia, more of the female gender scored poor in the quality-of-life construct. The relationship between gender and Qol was statistically significant in the overall Qol P-value 0.021, HRQol P-value 0.010, health satisfaction p-value 0.005. In Kortal Turkey, a statistically significant relationship was found between gender and QoL.⁹⁹ The same result was found in Germany ¹⁰⁶. The female gender had more patients scoring their QoL poor in the psychological domain, 34.0%. The reason is that the female gender may have more difficulty adjusting to the disease compared to the male¹²² However, in a longitudinal hospital based study in Turkey that enrolled 344 out-patients, the male patients had better Qol scores in all domains compared to the females.¹²² Also in Manisa Turkey, gender was statistically significant for all the domains except the environmental domain.¹²⁵ In Turkey, more of the female gender scored their Qol as poor.¹⁰⁹ The same result was obtained in Kuwait.¹³¹ Women have more difficulty adjusting to illness psychologically that could explain why more females rated their Qol poor in the psychological domain. The social relationship domain assesses inter-personal relationships including sexual life, hence it is not surprising that more males perceived their QoL poor in this domain.

QUALITY OF LIFE RATING IN RELATION TO THE OCCUPATION OF THE PATIENTS

The result of this study showed that more of the patients in the occupation in nil(unemployed) category 16.6%. People in the lower social class most likely had difficulty

funding their treatment (this was not assessed by the work) in an expensive city such as Port Harcourt, South, Nigeria. They were supposedly those who do miniature job which was also more tasking. These factors were likely to be the reason for their low Qol scores. They also were probably more worried of developing complications in the future, and may have wondered how they would cope financially. In the work done in Ilorin South-west Nigeria, the relationship between occupation and Qol was statistically significant. The value was not stated. In the same work, more patients with (elementary) occupations rated their Qol as poor. Lindsay and co-workers, in a community-based study in the UK also found the same result; those in the lower social class scored their Qol as poor.

QUALITY OF LIFE RATING IN RELATION TO THE MARITAL STATUS OF THE PATIENTS

The result of the study shows that more of the patients in marital status married is 30% in poor quality of life. This result agrees with a longitudinal hospital-based study done in Turkey although they did not state the percentage of the respondents that had better Qol, they also noted that the quality of marriage was not investigated. In a hospital based cross sectional study in Turkey, married patients were noted to have higher HRQoL score ($t = 2.15$; $p < 0.05$) compared to separated respondents. The relationship between marital status and Quality of Life is statistically not significant with $p\text{-value} = 0.59$.

QOL RATING IN RELATION TO THE INCOME OF THE PATIENTS

The result of the study shows that more of the patients in income is in nil (unemployed) category. The relationship between income and overall quality of life is statistically significant with $p\text{ value} = 0.01831$ respectively. The same trend was found in Turkey. Also in Ilorin, South west Nigeria, those who earned better income also scored higher in QoL rating. Just as in this present work, the relationship between income and QoL was statistically significant in Turkey 99 and Ilorin Nigeria 96. The explanation for the result is that HRQol assesses the health state of the patient. These include; paying for their medication, the side effect of the treatment and the complication of the disease. Those of

the lower social class were likely not to be able to fund the disease and hence were likely to score their HRQoL poor.^{177,178} More of social class 1 (N18,000-N100,000) scored their QoL poor in the physical and psychological domains 55.4% and 50.0% respectively.

CHAPTER-VI

SUMMARY

AND

RECOMMENDATIONS

OBJECTIVES OF THE STUDY WERE TO:

- To determine socio demographic variables among the patients with diabetes mellitus at selected hospital, Chennai.
- To determine the quality of life among patients with diabetes mellitus at selected hospital, Chennai.

RESEARCH DESIGN:

- Descriptive study design was used to conduct the study on data obtained on quality of life among patients with diabetes mellitus from September 10,2022 to September 20,2022.
- Sample of 30 diabetes mellitus patients in selected hospital in Chennai, who met the inclusion criteria were selected for the study by using purposive sampling method instruments used for data collection were structured interview to determine the quality of life among patients with diabetes mellitus at selected hospitals, Chennai.
- The investigated planned to collect the data period of one week. Prior written permission and consent were obtained from the H.O.D of Medical surgical nursing.
- Chi square test was used to find out the assess the quality of life among patients with diabetes mellitus with demographic variables at selected hospital, Chennai.

TO ASSESS THE QUALITY OF LIFE AMONG PATIENTS WITH DIABETES MELLITUS AT SELECTED HOSPITAL WITH SELECTED DEMOGRAPHIC VARIABLES.

Shows that there is significant association of the quality of life among patients with diabetes mellitus at selected hospital with selected demographic variables likeage of the patients, occupational status, marital status but there is no significant association between assess the quality of life among the patients with diabetes mellitus with demographic variables like monthly income status and gender.

CONCLUSION:

Diabetes mellitus now consider as a killer life style disease patients with diabetes in India With the increased prevalence of diabetes in India and around the world, it is becoming even more important to assess the QoL as an outcome measure in long-term illness and management. The review is the first of its kind from India to review the various QoL assessment tools used. The current review showcased that poorer QoL was observed

in people with diabetes as compared to those without diabetes. However, the reviewed studies were largely focused on T2D patients, with significant methodological issues, and small samples limiting their validity and generalizability. There is an urgent need to conduct extensive and high-quality QoL assessment studies with sample sizes representative of various groups and types of diabetes in India to address this gap in the evidence.

National recommendations are available in India for psychosocial management of diabetes, which provide practical guidelines to achieve qualitative improvement in diabetes management. Similarly, a consensus statement has been issued to address the psychosocial challenges and management for South Asian women with diabetes. However, as highlighted in this review, extensive research in this area is still required. Following this, further research on these guidelines should be updated to improve the psychosocial aspects of patients in diabetes in India.

NURSING IMPLICATION:

NURSING SERVICE

Nurse as an educator, leader, counsellor, motivator, supervisor and team member in various situation of work.

IMPLICATION FOR NURSING PRACTICE:

- Nurse should take the responsibility to teach patients about the providing nutritional diet, encourage to physical activities, to promote health checkup.
- Nurses should provide psychological support as well as encourage diabetic patients.
- Additional counselling sessions was arranged to the patients about diabetes mellitus during the data collection period.

IMPLICATION FOR NURSING ADMINISTRATION:

- Nursing administrator may use the study findings to improve the quality of carrying the community. The concept of the extended role of nurse offers many oppourtunities for a nurse administrator to improve the quality of life of the public and health care professionals.
- The nurse administrator in the higher level of authority must hold discussion and meetings on the prevailing health status of the health care professional. Based on that, the knowledge

of community nurses can be assessed and related programme can be planned and implemented.

- Administrator should organize in service education programme, refers a courses and workshop for health care professionals and encourage them to participate in this activity.

NURSING RESEARCH:

- The findings of the study shows that the majority of sample are at moderate level, assess the quality of life among patients with diabetes mellitus.
- The study will motivate new researcher to conduct the same study with the different variable on large scale.

LIMITATIONS:

- Sampling size was 30
- Setting was selected hospital at Chennai district, Tamilnadu.

RECOMMENDATIONS:

- Studies are needed to develop standardized tool on patient with diabetes mellitus.
- A similar study can be undertaken by using larger number samples

SUMMARY:

The study was done to determine the quality of life among patients with diabetes mellitus with selected demographic variables.

The study finding revealed that the frequency and percentage distribution of demographic variables of patients with diabetes mellitus.

- The finding shows that the chi square value of age of the patients in years 11.24.
- The findings shows that the chi square value of occupation 20.4
- The findings shows that the chi square value of marital status 10.11
- The findings shows that the chi square value of patients income 11.5
- The findings shows that the chi square value of gender 7.53

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PARTICIPANTS INFORMATION SHEET:

PURPOSE:

This perform is used to measure the demographic variables of patients such as,(name, gender, age, marital status, how many children you have, occupation and income).

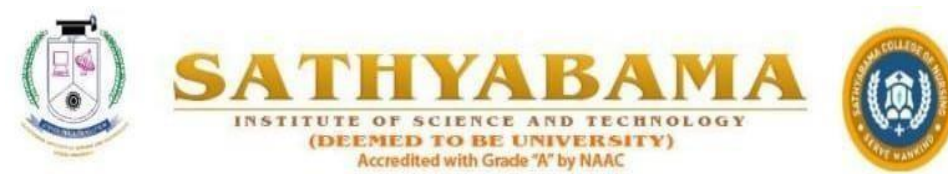
INSTRUCTIONS:

The investigator will collect the information through interviewing the patients with diabetes mellitus.

APPENDICES

APPENDIX – I

Letter -1: Letter Seeking Permission to conduct the study



PERMISSION LETTER

From,

The Dean

Sathyabama College of Nursing

Sathyabama Institute of Science and Technology

Chennai -119

To,

Respected Sir / Madam,

Sub.: Request for permission to conduct research study - reg

Mr. Arulselvan R and Ms. Iswarya S are bona fide B.Sc, Nursing students studying in

our college. As a partial fulfillment of Sathyabhama Institute of Science and

Technology (deemed to be University) requirement for the award of the B.Sc,

Nursing Degree, they are undertaking ("A STUDY TO ASSESS THE QUALITY OF LIFE AMONG PATIENTS WITH DIABETES MELLITUS AT SELECTED HOSPITAL, CHENNAI."), they have identified your centre as the best place to conduct the study.

Further details of the proposed project will be furnished by the student personally, they will not hinder your routine in any way and they will abide to the rules and regulations of the institution. All the information collected from institution will be kept confidential.

I kindly request you to grant her permission to conduct the study at your esteemed institution.

Thank you.

Yours faithfully

Date:

Place:

APPENDIX-II

LETTER SEEKING EXPERT OPINION AND CONTENT VALIDITY

From:

Mr. Arulselvan R and Ms. Iswarya S
B.Sc. (Nursing) III Year,
Sathyabama college of Nursing,
Sathyabama Institute of Science and Technology
Chennai -119

TO:

Respected Madam/Sir,

Sub: Requisition for expert opinion and content validity regarding.

We are B.Sc.(Nursing) III-year student of Sathyabama College of Nursing, Chennai, under Sathyabama Institute of Science and Technology (deemed to be university). As a partial fulfillment of our B.Sc. (Nursing) degree program, we are conducting a research study on “A study to assess the quality of life among patients with diabetes mellitus at selected hospital, Chennai” is valid. They can proceed in conducting data collection.

I am sending the tool for content validity and for your expert & valuable opinion. I will be very thankful if you return it at the earliest. Here with I have enclosed the necessary documents.

Thanking you,

Yours faithfully

Mr. Arulselvan R and Ms. Iswarya S

Enclosure:

1. Statement of the problem & objectives of the study.
2. Tool for data collection.
3. Brief note on the research methodology and intervention too.
4. Certificate of content validity

APPENDIX-III

CERTIFICATE OF CONTENT VALIDITY

To Whom So Ever It May Concern

This is to certify that the tool prepared by B.SC (N) III Year students of Sathyabama College of Nursing, Sathyabama Institute of Science and Technology (deemed to be university) for the conduction of the research study on “A study to assess the quality of life among patients with diabetes mellitus at selected hospital, Chennai” is valid. They can proceed in conducting data collection.

Signature

Place:

Date:

APPENDIX – IV

RESEARCH CONSENT FORM

Dear Participants,

We are Mr. Arulselvan R and Ms. Iswarya S B.Sc. Nursing III year student of Sathyabama College of Nursing, Sathyabama Institute of Science and Technology, Chennai. As a part of our study, research on A study to assess the quality of life among patients with diabetes mellitus at selected hospital, Chennai”

I hereby seek your consent and co-operation to participate in the study. Please be frank and honest in your responses. The information collection will be kept confidential and anonymity will be maintained.

Thank you

Signature of the researcher

I.....here by consent to participate and undergo the study.

Place:

Date:

Signature of the Participant

APPENDIX V

SATHYABAMA COLLEGE OF NURSING

CERTIFICATE FOR ETHICAL CLEARANCE

This is to certify that Mr. Arulselvan R and Ms. Iswarya S B.sc nursing III year students, Submitted the protocol on study as,

“A study to assess the quality of life among patients with diabetes mellitus at selected hospital, Chennai”

The above protocol was received by ethical committee approved and mentioned that the study is feasible to carry out under the guidance of an eligible guide.

Signature of the Chairman

Sample No:**1. Age:**

- a) 20-30 yrs
- b) 30-40 yrs
- c) 40-50 yrs
- d) 50 and above

2. Gender:

- a) male
- b) female

3. Marital status:

- a) married
- b) unmarried

4. How many children you have:

- a) nil
- b) one
- c) two
- d) three
- e) four and above

5. Occupation:

- a) student
- b) private job
- c) government job
- d) business
- e) daily wage workers
- f) nil

6. Income:

- a) Less than 10,000
- b) 10 -20,000
- c) 20-30,000
- d) 30-40,000

- e) 40 and above
- f) nil

7. How many days you have diabetes mellitus:

- a) 6month- 1 years
- b) 1yrs -2yrs
- c) 2yrs-3yrs
- d) 3yrs-4yrs
- e) 4yrs and above

8. When will you visit your doctor:

- a) Regular checkup
- b) Yearly once
- c) Weekly once
- d) Rarely

9. Do you have any other health problems:

- a) Blood pressure
- b) Asthma
- c) Thyroid
- d) Kidney problem
- e) Others
- f) No

10. Number diabetic drugs prescribed by the doctor:

- a) One
- b) Two
- c) Three
- d) Four and above

11. In your family any of them having diabetes mellitus:

- a) Your father or mother
- b) Your grand father or grand mother
- c) Your relatives
- d) No

12. How you behave to your spouse :

- a) Lovely and understanding
- b) Anger
- c) Irritating
- d) Nil

13. Working:

- a) At office
- b) Work from home
- c) Working at construction site
- d) Nil

14. when will you visit your close friends:

- a) Everyday
- b) Yearly once
- c) Monthly once
- d) Weekly once
- e) Rarely

15. What is your blood sugar level (in numbers)

16. Physical fitness

	Stíongly agíee	Agíee	Neutíal	Disagíee
Exeícise	☐	☐	☐	☐
MeditationYoga	☐	☐	☐	☐
Following the diet	☐	☐	☐	☐
	☐	☐	☐	☐

17. What are the activities you do

	Stíongly agíee	Agíee	Neutíal	Disagíee	Stíonglydisagíee
Playing outdooí games	☐	☐	☐	☐	☐
Reading books Paíticipating	☐	☐	☐	☐	☐
in competitionWatching 1°V	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

18. Other activities

	Eveíyday	Yeaílyonce	monthlyonce	Weeklyonce
Helping otheís Voluntaíy	☐	☐	☐	☐
giving advice	☐	☐	☐	☐
Impíoving the knowledge	☐	☐	☐	☐
Paíticipate in public affaíís	☐	☐	☐	☐
Going paíties	☐	☐	☐	☐
Listening to music	☐	☐	☐	☐

19. I like thinking about the connections and similarities between things

- a) Eveíyday
- b) Sometimes
- c) Raíely
- d) Neveí

20. Level of creativity

	Eveíyday	Sometimes	Raíely	neveí
I like activities that involve patteíns, such as cósswoíds and jigsaw puzzles	☐	☐	☐	☐
I like tíying to solve difficult píoblems in life	☐	☐	☐	☐
I make an effoít to use techniques that helpme think diffeíently	☐	☐	☐	☐
I spend time on thinking about íecíeatingnew things	☐	☐	☐	☐

21. Meet new people to get new experience and get knowledge

- a) Every day
- b) Weekly once
- c) Sometimes
- d) Rarely

22. How satisfied are you with your health

- a) Good
- b) Fair
- c) Poor

23. How could you rate your quality of life

- a) Good
- b) Fair
- c) Poor

INSTRUCTIONS FOR SCORING THE QUALITY OF LIFE SCALE

This form of the Quality of **Life Scale (QOLS)** has 16 items rather than the 15 found in the original Flanagan version. Item #16, "Independence, doing for yourself" was added after a qualitative study indicated that the instrument had content validity in chronic illness groups but that it needed an item that reflected the importance to these people of remaining independent and able to care for themselves. The instrument is scored by summing the items to make a total score. Subjects should be encouraged to fill out every item even if they are not currently engaged in it. (e.g. they can be satisfied even if they do not currently participate in organizations. Or they can be satisfied about not having children.) Missing data can be treated by entering the mean score for the item.

If you wish to compare scores in your groups with any scores that have been published, please be aware that most of the Burckhardt references published so far use the 15 item scale. More recent and forthcoming publications all use the 16 item scale. So be sure to check the methods section of the reference before comparing your means to published ones.

If you have further questions, please write to me or call.

Carol S. Burckhardt, PhD, RN phone - (503) 494-3895

Professor of Mental Health Nursing FAX - (503) 494-3691

School of Nursing - SNMH e-mail - burckhac@ohsu.edu

Oregon Health Sciences University

3181 SW Sam Jackson Park Road

Portland, OR 97201-3098

References

Burckhardt CS, Woods SL, Schultz AA, Ziebarth DM (1989). Quality of life of adults with chronic illness: A psychometric study. *Research in Nursing and Health*, 12, 347-354.

Burckhardt, CS, Clark SR, Bennett RM (1993). Fibromyalgia and quality of life: A comparative analysis. *Journal of Rheumatology*, 20, 475-479.

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QUALITY OF LIFE SCALE (QOL)

Please read each item and circle the number that best describes how satisfied you are at this time. Please

answer each item even if you do not currently participate in an activity or have a relationship. You can be satisfied or dissatisfied with not doing the activity or having the relationship.

Delighted Pleased Mostly Mixed Mostly Unhappy Terrible
Satisfied Dissatisfied

1. Material comforts home, food, conveniences,
financial security 7 6 5 4 3 2 1
2. Health - being physically fit and vigorous..... 7 6 5 4 3 2 1
3. Relationships with parents, siblings & other
relatives- communicating, visiting, helping..... 7 6 5 4 3 2 1
4. Having and rearing children 7 6 5 4 3 2 1
5. Close relationships with spouse or
significant other 7 6 5 4 3 2 1
6. Close friends..... 7 6 5 4 3 2 1
7. Helping and encouraging others,
volunteering, giving advice 7 6 5 4 3 2 1
8. Participating in organizations and
public affairs 7 6 5 4 3 2 1
9. Learning- attending school, improving
understanding, getting additional knowledge 7 6 5 4 3 2 1
10. Understanding yourself - knowing your assets
and limitations - knowing what life is about 7 6 5 4 3 2 1
11. Work - job or in home..... 7 6 5 4 3 2 1

- | | |
|---|--------------|
| 12. Expressing yourself creatively | 76 5 4 3 2 1 |
| 13. Socializing - meeting other people,
doing things, parties, etc | 76 5 4 3 2 1 |
| 14. Reading, listening to music, or observing
entertainment..... | 76 5 4 3 2 1 |
| 15. Participating in active recreation..... | 76 5 4 3 2 1 |
| 16. Independence, doing for yourself..... | 76 5 4 3 2 1 |

[illegible]

1.நந **F:**

- a) 20-30 நநந நநநநந
b) 30-40yrs
c) 40-50 நநந நநநநந
d) 50 நநநநநநநநநநநநநநநநநநநநநநந

2. நநநநநந :

- a) நநந
- b) நநநந

3. நநநநநநநநநந:

- a) நநநநநநநநநநந
- b) நநநநநநநநநநநநந

4. நநந நநநநநநநநநநநநநநநநநநநநநந நநநநநநந:

- [illegible]

5.0நநநநநநநநநநநந:

- a) நநநநநநநநநநநந
- b) நந Fநந
- c) நநநநநநநந
- d) நநநநநந நநநநநநநநநநநந
- e) நநநநநநநந
- f) நநந நந

10. நநநநந Fநநநந நநநநந Fந நநநநநநநநநநந நந நநநநநநநநநநந Fநநந :

- a) நநநநந
- b) நநந நந
- c) நநநந நந
- d) நநநநநநநநநநநநநநநநநநநநநநநநநநநநநந

11. நநந நநந நநநநநந நநநநநந நந நநநந Fநந நநநநநநநநநந நநந ந F:

- a) நநநநநநநநநநநநநநநந Fநநநந
- b) நநந நநநநநநநநநநநந ந Fநநநநந
- c) நநநநநநநநநநநநநநந
- d) நநந நந

12. நந நந நநந நநந நநந நநநநநநந Fநநநநநந :

- a) நநநநநநநநநநநநநநநநநநநநநநநந
- b) நநநநநந
- c) நநநநநநநநநநந
- d) நநந நந

13. நநநந:

- a) நநநநநநநநநநநந
- b) நநநநநநநநநநநந Fநநந நநநநந நநந
- c) நநநநநநநநநநநநநநநந நநநநநநநந நந
- d) நநந நந

14. நநந நநந நநநநநந நநநநந நநநநநந ந Fநநநந

நநநநந நந :

நநநநநநநந நநநநந F நநந 

நநந F நநநநநநந நநநநந நநந நநநந நநநநந 

நநநநநநநநநநநநந 

நநநநநநந F 

19. நநந நந நநநநநநந நநநநநநநநநநநநநந நநந நநந நநந நந நநந

நநநநநந நநநந நநநநநநநநந நந நநநநநநந

ந) நநந நநநநநநநநநநந

நநநநநநந நநநநந

c) நநநநநநநநநநநந

d) நநநநநந F நந

20. நநநநநநநந நநந நநந

நநந நநநநந நநந நநந நநநநநநந நநநந நநநநநநநநநநநந F நந

நநநநநந நநநநநநநநநநநநநநநநந நநநநநநநநநந நநநநநநநநநநநநந ,



நநநநநநநநநநந F நநநநந நநநந நநநநநநநநநநநந நநநநநந நநந

நநநந நநநநநநந நநநநநநநநநநநந நநநநநநநநநநந ந

நநநநநநநநநநநநந 

நநநநநநநநநநநந நநநநநநநந நநநநநநநநந நநநநநநநநந நநநநநநநநந

நநநநநநநநநநநநநநநநந 

நநந நநந நநநநநநநநநநந F நநந நநநநநநநநநநநநநநந

நநநநநநநநநநநநநநந நநந

நநநநநநநநநநந நந 

21. நநநநநநநநநநநநநநநநநநந நநநநநநநநநநநநந நநநநநநநநந

நநநநநநந நநநநநந

a) நநநநநநநநநநநநநநந

b) நநநநநநநநநநநநநநந

c) நநநநநநந நநநநந

d) நநநநநநநந

PHOTO GALLERY



