

# A Study to Determine the Quality of Life and to Assess the Effectiveness of Nurse Directed Intervention in Knowledge and Health Promotion Behavior of Type 2 Diabetes Mellitus among Urban Area

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## ABSTRACT

**Background:** A Study to determine the quality of life and to assess the effectiveness of nurse directed intervention in knowledge and health promotion behavior of type 2 diabetes mellitus **Material And Method:** The quantitative research approach with A pre-Experimental design is used in this study. One group pre-test, post-test design was used in this study to achieve the objectives. The sample size of the study consists of 50 patients with type 2 diabetes mellitus at UPHC at Nerkundram. Clients were selected using the convenience (non-probability) sampling technique who filled the inclusion criteria the demographic variables and WHOQL BREF QUESTIONNAIRE used for data was collected to level of knowledge and health promotion behavior of the type 2 diabetes mellitus **RESULTS:** The table 3 depicts that the pretest mean score of knowledge was 21.53 with standard deviation 5.34 and the post-test mean score of knowledge was 17.83 with standard deviation 3.96. The calculated paired 't' test value of  $t = 3.022$  was found to be statistically significant at  $p < 0.01$  level. **CONCLUSION:** The study assesses knowledge and interventions are increasingly being used in a variety of settings to improve the quality of care.

**KEYWORDS:** Type 2 diabetes mellitus, quality of life, client, education, health promotion behavior

## INTRODUCTION

Diabetes mellitus is a chronic condition that develops when the body either cannot use the insulin that the pancreas makes properly or does not generate enough of it. A hormone called insulin uncontrolled diabetes causes substantial long-term damage to a number of the body's systems, particularly the nerves and blood vessels. There are two varieties of diabetes mellitus: type I and type II. A collection of metabolic disorders that raise blood sugar levels are referred to as diabetes mellitus. Diabetes has risen to the top of the list of killers globally in recent years.

In 2016, around 1.6 million individuals worldwide lost their lives to diabetes, according to the World Health Organization. According to estimates, 425 million people worldwide have diabetes.

## METHODS AND MATERIALS

**Study Design:** Quantitative research approach pre experimental study was adopted for the present study: A Study to determine the quality of life and to assess the effectiveness of nurse directed intervention in knowledge and health promotion behavior of type 2 diabetes mellitus **Study Setting:** The study was conducted for duration of 3week on 1February 2022 till 21February 2022 in NCD clinic of host institution **Ethical Approval:** After obtaining the ethical clearance from institutional Ethical committee (IEC) of Saveetha Institute of medical and Technical science and a formal permission from the chief medical officer at UPHC to conduct the study was conducted **Study participant:** Total of 50 diabetes client who fulfill and meets the inclusion criteria were recruited as study participants. The inclusion criteria

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includes all diabetes client who are booked in NCD clinic who are willing to participate are affirmed to monitor the blood sugar level and can able to read English and Tamil. The exclusion criteria for the study participant diabetes client Open wounds or active malignancies in the lower extremities Clients with type 1 Diabetes mellitus or other type of diabetes mellitus. Persons who have systemic diseases apart from diabetes Mellitus. Type 2 Diabetes Mellitus patients who have complications of diabetes Mellitus like diabetic neuropathy, diabetic neuropathy, and diabetic retinopathy, who not able communicate and

cooperate. **Sampling Technique:** A Total of 50 diabetes client were recruited based on the inclusion criteria by using convenience sampling technique. **Informed Consent:** The purpose of the study was explained clearly in depth to each of the study participant and written informed content was obtained for them **PreAssessment:** The demographic and clinical information was collected using WHOQOL BREF questionnaire after estimating the quality of life. **Post-test:** diabetes, to assess the level of knowledge wer estimated

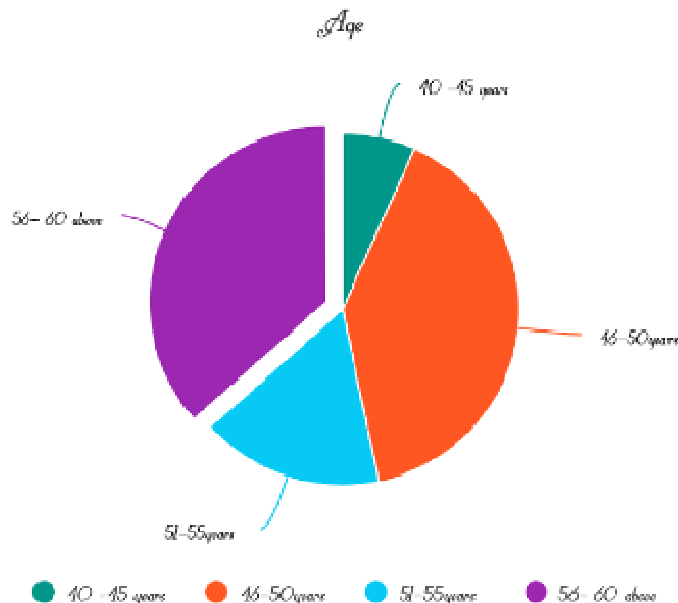
## RESULTS AND DISCUSSION

### Description of the demographic variables

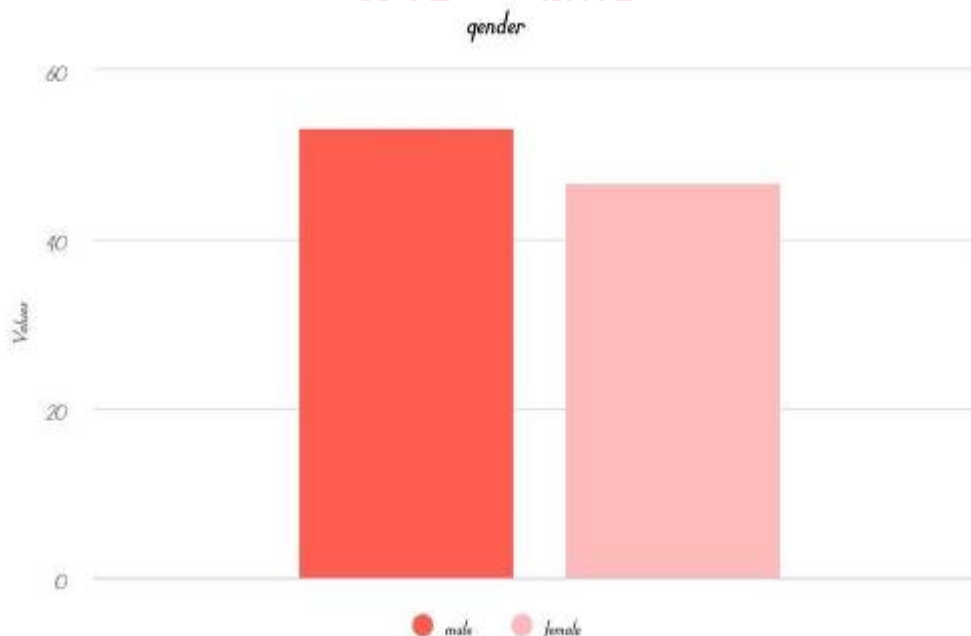
Among 50 study participant with regards to age diabetes client 43(62%) were age group of 46-50 years, 53.3% were males, 66.6% were illiterate, 63.3% were residing at urban area, 80 were under substance abuse, 60% had diabetic practice, 96.7% had foot care practices, 90% of them were married, 70% of them were coolie workers, 76.9% were earning monthly income from 5000-9000, 18 % had followed normal diabetic diet. (Table: 1 and figure: 2)

Demographic Variables	Frequency(F)	Percentage (%)
<b>Age</b>		
40-45 years	2	67
46-50 years	12	40.0
51-55 years	5	16.7
56-60 years	11	36.6
<b>Sex</b>		
Male	16	53.3
Female	14	46.7
<b>Education</b>		
Illiterate	20	66.6
School education	4	10.0
Diploma	5	16.7
Graduate	2	6.7
<b>Income</b>		
5000 -9000	23	76.6
10,000- 15,000	5	16.7
15,000 and above	2	6.7
<b>Residence</b>		
Urban	19	63.3
Rural	11	36.7
<b>Substance abuse</b>		
Yes	24	80.0
No	6	20.0

**Figure: 1 Percentage distribution of demographic variables on age of the client with type 2 diabetes mellitus**



**Figure: 2 Percentage distribution of demographic variables on Gender of the client with type 2 diabetes mellitus**



To assess the level of knowledge and health promotion behavior of type 2 diabetes mellitus shows that in the pretest, 16(53.33%) had very much amount, 8(26.67%) had extreme and 6(20%) had moderate amount. Whereas in the post client test, 18(60%) had very much and 12(40%) had moderate amount among diabetes (Table: 1 and figure: 2)

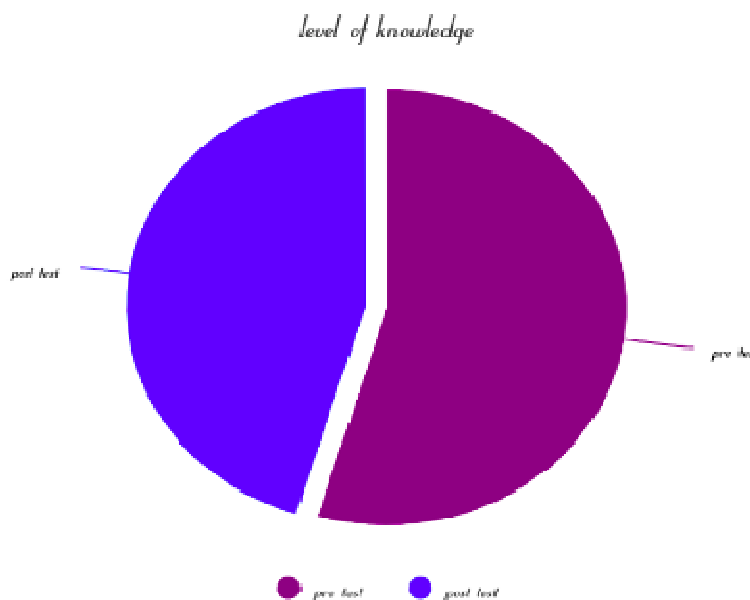
Symptoms	Not at all		A little		Moderate amount		Very much		Extreme	
	No	%	No	%	No.	%	No.	%	No.	%
Pretest	-	-	-	-	6	20.0	16	53.3	8	26.6
Post Test	-	-	-	-	12	40.0	18	60.0	0	0

To determine the quality of life of nurse directed intervention in knowledge and health promotion behavior of type 2 diabetes.

The table 3 depicts that the pretest mean score of knowledge was 21.53 with standard deviation 5.34 and the post-test mean score of knowledge was 17.83 with standard deviation 3.96. The calculated paired ‘t’ test value of t = 3.022 was found to be statistically significant at p<0.01 level.

Variables	Knowledge	Mean	S.D	Paired t test values
Knowledge	Pretest	21.53	5.34	t=3.022 p=0.005
	Post test	17.83	3.96	s**

**Fig 3: Percentage and distribution on level of knowledge on nurse directed intervention client with type 2 diabetes mellitus association of posttest level of knowledge with selected demographic variables shows that the demographic variables such as sex shows significant associate with level of knowledge**



**CONCLUSION**

The present study assessed the nurse directed intervention. The study findings revealed that there was a significant improvement in the level of knowledge after providing health education regarding lifestyle modification intervention. Based on the findings it was evident that provision of such kind of intervention will help the client with the management of such disease condition.

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**CONFLICT OF INTEREST**

Authors declare no conflict of interest

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None

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