**DISSERTATION ON**


**A STUDY TO ASSESS THE IMPACT OF HOME
BASED DIABETIC MANAGEMENT PROGRAMME
(HBDMP) AMONG TYPE II DIABETIC CLIENTS AT
URBAN PRIMARY HEALTH CENTRE, CHENNAI.**


**M.Sc (NURSING) DEGREE EXAMINATION
BRANCH – IV COMMUNITY HEALTH NURSING**

**COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE, CHENNAI – 600 003**



*A dissertation submitted to*
**THE TAMIL NADU DR.M.G.R.MEDICAL UNIVERSITY,
CHENNAI – 600 032**


*In partial fulfilment of the requirement for the award of degree of*
**MASTER OF SCIENCE IN NURSING**


**OCTOBER 2020**

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# CERTIFICATE

This is to certify that this dissertation titled, **"A STUDY TO ASSESS THE IMPACT OF HOME BASED DIABETIC MANAGEMENT PROGRAMME (HBDMP) AMONG TYPE II DIABETIC CLIENTS AT URBAN PRIMARY HEALTH CENTRE, CHENNAI",** is a bonafide work done by **PARIMALA.R,** M.Sc.(Nursing) II year Student, College of Nursing, Madras Medical College, Chennai -03, submitted to The Tamil Nadu Dr.M.G.R. Medical University, Chennai in partial fulfillment of the requirement for the award of the degree of Master of Science in Nursing **BRANCH – IV, COMMUNITY HEALTH NURSING** under our guidance and supervision during academic year 2018-2020.

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# CERTIFICATE OF PLAGIARISM

This is to certify that the dissertation work titled, **"A STUDY TO ASSESS THE IMPACT OF HOME BASED DIABETIC MANAGEMENT PROGRAMME (HBDMP) AMONG TYPE II DIABETIC CLIENTS AT URBAN PRIMARY HEALTH CENTRE, CHENNAI"** of the candidate **PARIMALA.R** for the partial fulfillment of M.Sc Nursing Programme in the branch of **COMMUNITY HEALTH NURSING** has been verified for plagiarism through relevant Plagiarism checker. We found that the uploaded thesis file from introduction to conclusion pages and rewrite shows _____ % of Plagiarism (_____% uniqueness) in this dissertation.

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"**Any time you deny the acknowledgement of God, You are undermining the entire basis for which our country exists.**"

**-Roy Moore**

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# ABSTRACT

Diabetes is a lifelong disease that reduces the victim's lifespan and quality of life. According to WHO, 2019 reports, in India was estimated that 31.7 million individuals were affected with Diabetes in 2000 and to grow up to 57.2 million by the year 2025. The Government of India said many of 3.46 lakh people died of Diabetes in 2016, up from 2.24 lakh in 2005, with the deadly disease climbing to the seventh position on the list of causes of deaths in the country. The prevalence of Diabetes in Chennai the year of 1972 is 2.3% and the year of 2014 is 24.7%. In Chennai the prevalence of known Diabetes was low in total population but increased in those aged > 20 and further increased in those aged > or = 40 years. The causes for high prevalence in > or = 40 year age group needs to be explored in this population. This probed the investigator to conduct a study on Home Based Diabetic Management Programme. Home Based Diabetic management programme is the key to the development of the patient is independence and self esteem.

## TITLE

"A study to assess the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients at Urban Primary Health Center, Chennai."

## OBJECTIVES

To assess the Pre-test level of knowledge and Healthy life style behavior among Type II Diabetic clients in Experimental and Control group, To evaluate the Impact of Home Based Diabetic Management Programme among Type II Diabetic clients in Experimental group , To compare the Pre-test and Post-test level of knowledge and Healthy life

style behavior among  Type II Diabetic clients in Experimental and Control group, To find out the association between post-test level of knowledge  and Healthy life style behavior among  Type II Diabetic clients and their selected demographic variables

## METHODOLOGY

The study was conducted with 60 samples of Type II Diabetic clients in quantitative approach. Quasi Experimental non randomized Control group design, sample selection was done by convenient sampling technique method. Preexisting knowledge and Healthy life style behavior were assessed by using semi structured and likert-scale questionnaire. After the Pre-test, Home Based Diabetic Management Programme (HBDMP) was given regarding  Type II Diabetes Mellitus among Type II Diabetic clients. After7 days post test was conducted by using tool.

## RESULTS

The finding of the study revealed that Home Based Diabetic Management Programme (HBDMP) had improved the knowledge and Healthy life style behavior regarding Home Based Diabetic Management Programme with paired t test, p< 0.001. There is statistically significance in knowledge and Healthy life style behavior attainment on regarding Type II Diabetes Mellitus show the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients.

## CONCLUSION

The conclusion of the study shows that Home Based Diabetic Management Programme (HBDMP) was effective in improving knowledge and healthy life style behavior regarding management of Type II Diabetes mellitus.

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# LIST OF ABBREVIATTION

| ABBREVIATION | EXPANSION |
|---|---|
| CI | Confidence interval |
| DF | Degree of freedom |
| DSME | Diabetes Self Management Education |
| Fig | Figure |
| GDM | Gestational Diabetes Mellitus |
| H1 and H2 | Research hypothesis |
| HBDMP | Home Based Diabetic Management Programme |
| IDF | International diabetic federation |
| IGT | Impaired glucose tolerance |
| MDRF | Madras Diabetes Research Foundation |
| MDRM | Malnutrition related Diabetes Mellitus |
| NS | Non-significant |
| P&S | Significance |
| PHFI | Public Health Foundation of India |
| PHGI | Public Health Foundation of India |
| SD | Standard Deviation |
| WHO | World health organization |
| X2 | Chi square test |

# CHAPTER-I
# INTRODUCTION

*"Prevent Diabetes: protect our future"*

*-WHO*

Human beings are the unique distinctive creature within the world, maintaining good health is for most important to lead healthy life choice. Health is body's constant adjustment and adaptation in response to stress and life changes in the environment for maintaining an inner mind and body equilibrium. Wellness is first and foremost a choice to assume responsibility for the quality of our life and behavior.

**-Brazil, 2017**

Diabetes Mellitus is a group of metabolic disorder in which a person who has high blood sugar the pancreas does not produce enough insulin or the pancreatic cell does not respond to the insulin is produced. The high blood sugar produces the classical symptoms of polyuria, polydipsia and polyphagia.

**-Metcalfe,2017**

Diabetes is a lifelong disease that reduces the victim's lifespan and quality of life. Diabetes Mellitus management is a continuing life-long endeavor requiring knowledge and healthy life style behavioral changes. Diabetes is a very common disease associated with the deterioration in carbohydrate, protein and lipid metabolism. Those affected by Diabetes has high financial burden for treatment and management of the disease. Throughout the world it has been estimated that the prevalence of Diabetes Mellitus (DM) has been gradually increasing due to factors such as sedentary lifestyle and inadequate knowledge and it will affect approximately 5.4% of the world's adult population by the year 2025. **-Albert,2007**

In 2018, total population in India has approximately of 1.33 billion. India has more Diabetics than any other country in the world. The International Diabetes Federation (IDF) had estimated the total number of people in India with Diabetes to be around 50.8 million in 2010, rising to 87.0 million by 2030. In order to effective Diabetic management, Diabetes patients need to acquire enough knowledge about their disease, accept their disease and follow Healthy Life Style Behavior towards controlling the disease. Knowledge with the effects of DM requires the patients to develop awareness, behavioral and social skills in order to be able to successfully manage their disease throughout their entire life.

**–Goshan,2016**

*Linqi Mao* conducted a descriptive cross-sectional study among 250 Diabetic participants in the rural field practice area of a Tertiary Medical College and Hospital in Chennai. This study observed that the overall prevalence of good self-care practices was very low 5.6%. Moderate self-care practices were prevalent in 42% of the study participants whereas the majority 52.4% of the study population had poor self-care practices. Structured programs need to be planned to improve the attitude and practices of Diabetic patients to promote better compliance towards Diet, exercise, adherence to drugs, and appropriate foot care.

Healthy Lifestyle behavioural changes may be difficult to undertake. Home Based Diabetic Management Programme support and focused on general knowledge of Diabetes, healthy lifestyle behavioural changes, and self-monitoring of blood glucose are fundamental to optimize glycemic Control to prevent or delay acute and chronic complications and to improve quality of life for people with Diabetes. A lot of evidence shows that educational programs addressing nutrition

and training administered in the home based Diabetic management from community setting.

**–Javad Anand 2015**

The global diabetes prevalence in 2019 is estimated to be 9.3% (463 million people), rising to 10.2% (578 million) by 2030 and 10.9% (700 million) by 2045. The prevalence is higher in urban (10.8%) than rural (7.2%) areas, and in high-income (10.4%) than low-income countries (4.0%)

**-Shiv Aroor 2014**

The **world health organization** reports showed that the estimation of Type II Diabetes Mellitus in **India** is:

| YEAR | NO OF CASES |
|------|-------------|
| 2000 | 32 million |
| 2006 | 38.9 million |
| 2010 | 40.09 million |
| 2025 | 69.9 million |
| 2035 | 80.87 million |

## BACK GROUND OF THE STUDY

Maintain healthy body weight and be physically active, take a healthy diet and avoid tobacco use is the general healthy measures.It had implied in preventing or control on the onset of Type II Diabetes. Early screening, increased access to health care services, affordable diagnosis and treatment and patient empowerment for self-management are the important components of the Control of Diabetes.

**- Bekadam, 2018**

The Government of India said many of 3.46 lakh people died of Diabetes in 2016, up from 2.24 lakh in 2005, with the deadly disease climbing to the seventh position on the list of causes of deaths in the country.

**-Faggan Singh, 2018**

In India population has an increased susceptibility to Diabetes mellitus. During the year 2016 in India, the proportional mortality due to Diabetes was about 2%. The number of deaths due to Diabetes in age group 30-69 was 75,900 in males and 51,700 in females and in age 70+ years about 46,800 in males and 45,600 in females .The mortality rate was about 30.2 per 100,000 population for men and 22.7 per 100,000 population for women. The number of deaths attributable to high blood glucose in age group 30-69 was 2,51,300 for men and 1,45,700 for women ,and for age group 70+ years , 1,35,700 for men and 1,39,900 for women

**-Kulaste, 2018**

In TamilNadu the increase in numbers from 2005 to 2018 has led to the shift from 11th position to the seventh position in terms of the cause of death due to Diabetes.In Tamil Nadu, for every known Diabetic, there were two who were unaware of having the disease revealed by ICMR-INDAB study . Dr. Mohan told that, for every two people with Diabetes, only one is unknown.

**–Dr V. Mohan, (President and Director of the Madras Diabetes Research Foundation).**

In Chennai the age group of 40-44 years of people have 58%, 45 - 54 years of people have 77%, 56-64 years of people have 74%, 65 + years of people have 73% of people have either Diabetes or pre-Diabetes in Chennai. The prevalence of Diabetes in Chennai the year of 1972 is 2.3% and the year of 2016 is 24.7%. In Chennai the prevalence of

known Diabetes was low in total population but increased in those aged > 20 and further increased in those aged > or = 40 years. The causes for high prevalence in > or = 40 year age group needs to be explored in this population.

**–Rohit Sardhana,2014**

## GROWING BURDEN OF THE DIABETES EPIDEMIC



### Statistics

- Diabetes is a leading cause of death worldwide (30% loss of life expectancy from diagnosis of diabetes)
- Currently, there are 425 million people living with diabetes (largest age group: 40-59 years) and 352 million with IGT
- By 2045, the number of people with diabetes is expected to rise by 48% worldwide

### Complications

- Diabetes is among the leading causes of kidney failure (>50%), neuropathy and amputations
- CVD (hear attacks/strokes) accounts for up to 70% of all deaths among diabetes patients
- Diabetes is the main cause of partial vision loss and blindness in people over 20
- Diabetes stimulates various socia-psychological conditiions (job, family, driving, mood disorders, quality of life)

*International diabetes federation 2018.*

## 1.1. NEED FOR THE STUDY

In all countries in the world now recognized as one of the fastest growing threat to public health of silent disease is Diabetes mellitus. In world India has the highest rate of Diabetes and Indians are particularly known to be at risk of developing the disease. As per the Diabetic statistics 2019, include the fact that there is 1 person in the world dying of Diabetes every 10 seconds. Also there will be 2 new Diabetic cases in the world being identified every 10 seconds.

**-Sekhar,2017**

Chennai, the largest city in southern India with an estimated population of 10.316 million (3.3%) is now having increased incidence of Diabetes population.

*Prevalence of Type II Diabetes mellitus in Chennai is*

| YEARS | PERCENTAGE |
|---|---|
| 40-44 years | 58% |
| 45-54 years | 77% |
| 56-64 years | 74% |

The incidence and prevalence rate of Type II Diabetes Mellitus in **Choolai** is increasing an alarming rate and shown as follows:

| YEAR | INCIDENCE RATE | PREVALENCE RATE |
|---|---|---|
| 2014 | 420 | 1150 |
| 2015 | 504 | 1975 |
| 2016 | 768 | 2002 |
| 2017 | 970 | 2056 |
| 2018 | 1670 | 2870 |
| 2019 | 2030 | 3450 |

There is urgent need to implement preventive measure to reduce the high morbidity and mortality and to reduce the cost burden to patients and to the society. The Chennai urban population study was done to determine the mortality rate in Diabetic and non-Diabetic subjects in urban south India. Cardiac diseases and renal diseases were the commonest cause for mortality in Diabetic subjects. Smoking and physical inactivity are associated with all cause of mortality.

**–Mohan D 2017**

During the urban community posting, the investigator observed that many of the age group that is 40-60 years of age where have Type II Diabetes.40-60 years of age group are taking anti-Diabetic medications relevantly at high cost. The investigator felt that the use of Home Based Diabetic Management Programme such as Diet, exercise, blood sugar

monitoring, drug adherence and prevention of complications would be low cost, economical and acceptable to the people to the maintaining of blood glucose level. This probed the investigator to conduct a study on Home Based Diabetic Management Programme.

**-Senguptha,2016**

## 1.2 STATEMENT OF THE PROBLEM

"A study to assess the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients at Urban Primary Health Centre, Chennai."

## 1.3 OBJECTIVES OF THE STUDY

❖ To assess the Pre-test level of knowledge and Healthy Life Style Behaviour among Type II Diabetic clients in Experimental and Control group

❖ To evaluate the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients in Experimental group

❖ To compare the Pre-test and post-test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients in Experimental and Control group

❖ To find out the association between post-test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients and their selected demographic variables

## 1.4 OPERATIONAL DEFINITIONS

*Assess*

It refers to measuring the knowledge and Healthy Life Style Behavior on Impact of Home Based Diabetic Management Programme among Type II Diabetic clients.

*Impact*

It refers to significant increase in the level of knowledge and Healthy Life Style Behavior regarding Home Based Diabetic Management Programme.

*Home Based Diabetic Management Programme (HBDMP)*

Home Based Diabetic Management Programme (HBDMP) is a serious of interventions developed by investigator for Type II Diabetic clients.

1. Provide basic Information about Type II Diabetes Mellitus

2. Suggested Diet and exercise.

3. Diabetes Self Management Education (DSME).

*Type-II Diabetic Clients*

It refers to who are attending NCD OP with Type II Diabetes Mellitus with the age of 40-60 years.

## 1.5 HYPOTHESIS

**H1:** There will be significant difference between Pre-test and Post-test level of knowledge and Healthy Life Style Behaviour on Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients

**H2:** There will be significant association between Post–test level of knowledge and Healthy Life Style Behaviour among Type II Diabetic clients and their selected demographic variables.

## 1.6 ASSUMPTIONS

Home Based Diabetic Management Programme may help to improve the knowledge and Healthy Life Style Behaviour among Type II Diabetic clients.

## 1.7 DELIMITATIONS

1.  The findings of the study were limited to selected UPHC, Chennai

2.  The study period was limited to 4 weeks

3.  The study was limited to Home Based Diabetic management on Type II Diabetes Mellitus among Type II Diabetic clients.

## 1.8 CONCEPTUAL FRAMEWORK

A conceptual frame work can be defined as a set of concept and assumptions that integrate them into a Meaningful configuration. A conceptual frame work selected for this project is general system theory. It consists of four factors, input, throughput, output and feedback.

## INPUT

It refers to resources taken or received from the external environment. In this study input refers to administration of Home Based Diabetic Management Programme among Type II Diabetic clients to improve the level of knowledge and Healthy Life Style Behaviour.

## THROUGH PUT

It refers to the process of conversion of resources within the system, in this study throughput refers to the transformation of knowledge and Healthy Life Style Behaviour, among Type II Diabetic clients regarding Home Based Diabetic Management Programme.

## OUTPUT

After processing the input system returns to output. It refers to the knowledge and Healthy Life Style Behaviour, Information that are processed. In this study output refers to the outcome that increases in the level of knowledge and Healthy Life Style Behaviour, as measured by Post-test.

**FEEDBACK**

It refers to Information sent back ward from the output to the input and the process in order to gain understanding and modify the level of knowledge Healthy Life Style Behaviour by analysis of the Post-test.

# FIG-1.1: CONCEPTUAL FRAMEWORK BASED ON J.W. KENNY'S OPEN SYSTEM MODEL



INPUT

THROUGHPUT

LACK OF KNOWLEDGE ON HOME BASED DIABETIC MANAGEMENT AMONG TYPE II DIABETIC CLIENTS

PRETEST

HOME BASED DIABETIC MANAGEMENT PROGRAMME AMONG TYPE II DIABETIC CLIENTS

CONVERTING INFORMATION OF HOME BASED DIABETIC MANAGEMENT IN ORDER TO GAIN KNOWLEDGE AND HEALTHY LIFESTYLE BEHAVIOR WITHIN THE SUBJECT

POSTTEST

OUTPUT

ADEQUATE LEVEL OF KNOWLEDGE AND HEALTHY LIFESTYLE BEHAVIOR

MODERATE LEVEL OF KNOWLEDGE AND HEALTHY LIFESTYLE BEHAVIOR

INADEQUATE LEVEL OF KNOWLEDGE AND HEALTHY LIFESTYLE BEHAVIOR

FEEDBACK

11

# CHAPTER-II
# REVIEW OF LITERATURE

The term literature review refers to extensive and systematic examination of publications relevant to research project. Before starting any research a literature review of previous studies and experiences to the proposed study must be done.

This chapter deals with a review of research studies and related material for the present study. The review helped the researcher to develop an insight into the problem area and helped to build the foundation of the study.

## 2.1 The review of literature consists of

**2.1.1**   Literature related to prevalence and incidence of Type II Diabetes Mellitus

**2.1.2**   Literature related to Home Based Diabetic Management Programme

**2.1.3**   Literature related to knowledge of Type II Diabetes Mellitus

**2.1.4**   Literature related to Healthy Lifestyle Behaviour of Type II Diabetes Mellitus

## 2.1.1 LITERATURE RELATED TO PREVALENCE AND INCIDENCE OF TYPE II DIABETES MELLITUS:

***International Diabetic federations (2020)*** was conducted a study that provide latest figures, Information and projections on Diabetes worldwide. Approximately 463 million adults (20-79 years) were living with Diabetes, by 2045 this will rise to 700 million. The proportion of people with Type 2 Diabetes is increasing in most countries.79% of adults with Diabetes were living in low- and middle-income countries.1 in 5 of the people who are above 65 years old have Diabetes.1 in 2 (232

million) people with Diabetes were undiagnosed. Diabetes caused 4.2 million deaths. Diabetes caused at least USD 760 billion dollars in health expenditure in 2019 – 10% of total spending on adults.

*World Health Organization (2020)* was conducted on cross sectional study, the number of people with Diabetes from 108 million in 1980 to 422 million in 2014.The global prevalence of Diabetes among adults over 18 years of age from 4.7% in 1980 to 8.5% in 2014. Between 2000 and 2016, there was a 5% increase in premature mortality from Diabetes. Diabetes is a major cause of blindness, kidney failure, heart attacks, stroke and lower limb amputation. In 2016, an estimated 1.6 million deaths were directly caused by Diabetes. Another 2.2 million deaths were attributable to high blood glucose in 2012. Almost half of all deaths attributable to high blood glucose occur before the age of 70 years.

*Pouya Saeedi, et al (2020)* the study was provided global estimates of Diabetes prevalence for 2019 and projections for 2030 and 2045. The global Diabetes prevalence in 2019 is estimated to be 9.3% (463 million people), rising to 10.2% (578 million) by 2030 and 10.9% (700 million) by 2045. The prevalence is higher in urban (10.8%) than rural (7.2%) areas, and in high-income (10.4%) than low-income countries (4.0%). One in two (50.1%) people living with Diabetes do not know that they have Diabetes..Just under half a billion people are living with Diabetes worldwide and the number is projected to increase by 25% in 2030 and 51% in 2045.

*Nita Gandhi Forouhi and Nicholas J.Wareham (2019)* was conducted systemic review the disease burden related to Diabetes is high and rising in every country, fuelled by the global rise in the prevalence of obesity and unhealthy lifestyles. The latest estimates show a global prevalence of 382 million people with Diabetes in 2013, expected to rise

to 592 million by 2035. Both forms of Diabetes can lead to multisystem complications of micro vascular endpoints, including retinopathy, nephropathy and neuropathy, and macro vascular endpoints including ischemic heart disease, stroke and peripheral vascular disease. The premature morbidity, mortality, reduced life expectancy and financial and other costs of Diabetes make it an important public health condition.

***Dianna J Magliano, et al (2019)*** conducted as cross sectional study among the 22 833 screened abstracts, 47 studies were included, providing data on 121 separate sex specific or ethnicity specific populations, 42 (89%) of the included studies reported on diagnosed Diabetes. In 1990-2005, Diabetes incidence increased in 66% (33/50) of populations, was stable in 32% (16/50), and decreased in 2% (1/50). In 2006-14, increasing trends were reported in only 33% (11/33) of populations, whereas 30% (10/33) and 36% (12/33) had stable or declining incidence, respectively. The incidence of clinically diagnosed Diabetes has continued to rise in only a minority of populations studied since 2006, with over a third of populations having a fall in incidence in this time period.

***India Today (2019)*** conducted a study, India had 69.2 million people living with Diabetes in 2015. Nearly 98 million people in India may have Type 2 Diabetes by 2030.The study, published in the 'Lancet Diabetes & Endocrinology' journal, found that the amount of insulin needed to effectively treat Type 2 Diabetes will rise by more than 20 per cent worldwide over the next 12 years. Without major improvements in access, insulin will be beyond the reach of around half of the 79 million adults with Type 2 Diabetes who will need it in 2030, said researchers from Stanford University in the US.

***Thebmj (2019)*** study was conducted a Systematic review of Diabetes incidence, if not yet prevalence and disease burden, appears to

have decreased in developed countries. As possible reasons, Magliano and colleagues cite public health initiatives, increased public awareness and Dietary changes and decreased prevalence of Diabetes risk factors. The most obese countries in the world are the island nations of Oceania. South Sea Islanders characteristically have high prevalence of obesity with marked accumulation of subcutaneous fat, but traditionally had low prevalence of Diabetes until more generalized obesity became common in recent years. Up to 40% of the population is Pre-Diabetic.

*Neetu Chandra Sharma (2019)* the study was conducted as Government survey found the prevalence of Diabetes in India .The survey conducted during 2015-2019 by Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi also showed that the prevalence of known Diabetes cases was 8.0% and new Diabetes cases was 3.8%."Males showed a similar prevalence of Diabetes (12%) as females (11.7%). Known Diabetics comprised 67.3% participants, while 32.7% were new Diabetics. Highest prevalence of Diabetes was observed in 70-79 years age group at 13.2%. Nearly 40% of known Diabetes was diagnosed 1-4 years back while 5.3% of known Diabetes cases reported diagnosis within past one-year," the report said. Under the survey, prevalence of Diabetes among 63,000 enumerated population aged up to 50 years in 21 districts, 56,771 or 90.1% were assessed for Diabetes.

*Benita Chacho (2019)* a cross-sectional study of individuals aged 15 to 49 years', and conducted by the Public Health Foundation of India (PHFI), the Madras Diabetes Research Foundation (MDRF), Chennai, and the Harvard School of Public Health with other international organizations, used secondary data from the National Family Health Survey, 2015-16, for the analysis. It included 647,451 women and 101,668 men between the age group of 15 and 49 years, and has balanced male and female participation using statistical methods and

survey design analysis. "Like developed countries, we also need to have regular health check-ups to monitor our blood-glucose levels. Here, we undergo a check-up only when we are joining a new organization.

*Waqassami (2019)* a cross-sectional study involving 184 respondents was conducted at the Diabetic clinic of the IME Kimpese Hospital, DRC. We administered a Pre-tested questionnaire. Out of a total of 10, scores of < 5, 5 to < 7, and ≥ 7 were classified as 'poor knowledge', 'moderate knowledge' and 'good knowledge', respectively, according to expert consensus. The majority of respondents (72.3%) had poor general knowledge about Diabetes mellitus. Respondents also scored poorly in areas of the causes (35.6%), risk factors (39.3%), clinical features (34.9%), complications (20.5%) and management (42.4%) of Diabetes mellitus. This study reveals to promote healthy lifestyle practices.

*Mervatalous et al (2019)* conducted a study to assess the knowledge and practices among Diabetes. 1702 respondents were participated in the study. 53.3% respondents had good knowledge scores. 46.3% respondents had positive attitudes against Diabetes. As for practices 37.3% of respondents did not engage in regular exercise. More than half of the respondents had never checked their blood glucose level .This study had suggested the need for more educational interventions to address negative attitudes and promote healthy lifestyle practices.

*M Deepa, et al (2019)* the study was conducted to assess the knowledge about Diabetes and medical adherence among the Diabetic patients in Maharashtra.307 respondents were participated in the study. Only 23.8% had good knowledge regarding Diabetes, while 19.2% participants had poor knowledge. The study respondents were lack of knowledge regarding Diabetes and self care. The researcher suggested

conducting Seminars, counseling sessions and workshop should be arranged periodically for Diabetic patients to increase their awareness.

*Faisal K, et al (2019)* this study conducted to summarize available peer-reviewed publications about public knowledge and awareness of Diabetes mellitus among the population of Saudi Arabia. Nineteen articles were included in the systematic review. DM patients , healthcare workers , medical students , secondary school students, and general population. Most studies found a lack of public awareness of the risk factors and complications of DM. Among medical students and healthcare workers, knowledge about the epidemiology of the disease and angle of insulin injection was deficient. This review highlights the need for increased knowledge and awareness of DM among the Saudi population.

*H.M.M Hearth (2019),* study was conducted as a community based cross sectional study in three Medical Officers of Health (MOH) areas in Galle district in Southern Sri Lanka. Total of 277 respondents were included in the study. 39% have moderate knowledge and 38% have above moderate knowledge on Diabetes mellitus. More than half of respondents never had their blood sugar checked and, 80% had no regular exercise activities. The researcher suggests increasing the knowledge and awareness about Diabetes to Control and monitor blood sugar to the clients.

## 2.1.2 LITERATURE RELATED TO HOME BASED DIABETIC MANAGEMENT PROGRAMME

*Gulnaz Karatay, et al (2020)* the study was conducted as one-group Pre-test-Post-test design. Home visits were carried out once a week for nine weeks for 52 patients. At the completion of the intervention, life-style changes, such as the frequency of Controlling blood glucose, glycemic Control, exercise, and increasing vegetable and

fruit consumption all produced changes which proved statistically significant and positive. Similarly, in comparison to before the intervention, the results after completion of the intervention showed that the values of patients' weight ($86.28 \pm 13.50$, $80.40 \pm 23:13$), systolic blood pressure ($139.75 \pm 17.53$, $135.31 \pm 17.91$), and postprandial blood glucose ($265.63 \pm 128.63$, $215.48 \pm 69.71$) had all statistically and significantly decreased ($p < 0.05$). This team study created a positive change in terms of managing patients' Diabetes.

***Kucukarslan Aylin, et al (2020)*** the study was to evaluate the effect resistance and home-based walking exercise on glycemic Control, depression and quality of life in Type-2 Diabetes patients. 38 Type-2 Diabetic patients. Resistance exercises were performed in the exercise room twice in a week. The patients were randomly assigned to Experimental or Control group. Each resistance exercise took 45-60 s to complete for a total exercise time of 30 min. All the patients were taking oral glycemic Control medications, no changes in any medications were made throughout the study. The study revealed resistance and home-based walking exercise was effective on glycemic and Control, depression and quality of life in Type-2 Diabetes patients.

***Brittannie Chester, et al (2019)*** was conducted as prospective study 9-month intervention included a motivational program, a nutrition program, and an exercise program. Changes in HbA1c level and weight were also checked. A significant improvement ($p < 0.05$) was registered in behaviors related to the management of hypoglycemic crisis and food choice. The adoption of healthy behavior was more common among women and persons with higher educational levels. About 30% of participants did not modify their emotional status after the intervention. Although not significantly the trust of patients towards physical activity increased at the end of the study, together with their active lifestyle and with the decrease of perceived barriers. A significant improvement was

registered in glycemic Control and weight status. The researcher suggested motivational program, a nutrition program, and an exercise program was Control as blood sugar.

*Linqi Mao, et al (2019)* this descriptive cross-sectional study was carried out among 250 Diabetics in the rural field practice area of a Tertiary Medical College and Hospital in Chennai. This study observed that the overall prevalence of good self-care practices was very low (5.6%). Moderate self-care practices were prevalent in 42% of the study participants whereas the majority (52.4%) of the study population had poor self-care practices. Adherence was high for blood sugar testing (75.2%) and medication (70.4%) in the study population whereas adherence for foot care was poor (17.6%). This study emphasized on the need for knowledge and awareness to be provided in rural areas regarding Diabetes care management and self-care practices. Structured programs need to be planned to improve the attitude and practices of Diabetic patients to promote better compliance towards Diet, exercise, adherence to drugs, and appropriate foot care.

## 2.1.3 LITERATURE RELATED TO KNOWLEDGE REGARDING OF TYPE II DIABETES MELLITUS

*Liudmila Miyar Otro, et al (2018)* the study was conducted to assess the knowledge of Diabetic patients. 54 Diabetic respondents were participated in the study. Quasi-Experimental, prospective and comparative sampling technique was used for this study. This study recommended awareness to the Diabetic clients.

*Edward fottrel, et al (2018)* this study was conducted as Quasi-Experimental study to assess the knowledge of respondents to prevent, detect and Control Diabetes.12140 respondents of men and women aged ≥30 were selected randomly for this study. The researchers selected cross-sectional survey. Only 14% of respondents reported ever having

had a blood glucose test and 78.4% of known Diabetics reported that they did not monitor their blood glucose levels on at least a monthly basis. Knowledge of Diabetes among rural adults is extremely poor. Suggestion of this study was increase the awareness about Diabetes.

**Kanchanadussa, et al (2017)** the study was conducted a cross-sectional study was conducted at the outpatient clinics, Osmanian Hospital. Subjects with T2DM of either gender, between the age of 18 years and <85 years. Level of Diabetes knowledge among study population. Suggestion of this study was increase the awareness about Diabetes.

**Sandul Yasobant, et al (2017)** study was conducted as cross sectional study in Indian Institute of Public Health Gandhi agar, India. This is a multi-centric prospective study with a phase of intervention among the Diabetic patients in three diverse districts Mehsana (Rural), Chota Udaipur (Tribal), Ahmadabad (Urban) of Gujarat, India. Knowledge and management practices found to have change followed by community based intervention. This study found that the knowledge and practices about management of Diabetes could be changed with suitable designed community based intervention programs.

**Flávia Gilda Zanetti, et al (2017)** a cross-sectional exploratory study was carried out with 147 Diabetic patients registered in the HIPERDIA system of a Brazilian county. 63.45% of the interviewees were women, 36.55% were men-Mean age was 59.54 years, 61.60% of the total interviewees had three meals per day. Patients' Diet was the most often response about the main difficulty in the glycemic Control treatment (34.25%), 7% of the patients presented positive attitudes towards Diabetes Mellitus and 17.5% showed proper knowledge about it. Most participants presented inadequate food habit, poor knowledge

about Diabetes Mellitus and its complications, as well as negative attitude towards the disease.

***Ibharim Bin Ahmed, et al (2017)*** International journal of medical research & health sciences was to assess the awareness and knowledge towards Type II Diabetes in Northern Saudi Arabia. Cross sectional survey conducted for 1530 participants,59% males and 41% Were females out of 1530 participants 60.8% know nothing about DM and about 48% were know something about symptoms of DM.There is low awareness and knowledge levels toward baseline DM related information. The researcher suggested increasing the level of knowledge.

***Alisson Padilla de Lima (2017)*** this study was to assess the knowledge and attitude towards Type II Diabetes in Passo Fundo – Brazil. A cross-sectional population-based study was adopted on 204 older adults from the public healthcare network .The study revealed that good knowledge about DM2 is associated with age of 70 years or older, having a positive attitude towards treatment of the disease, and being physically active. In rural areas the older adult participants having negative knowledge and attitude scores. The researcher suggested that the professionals involved should be aware of and provide the necessary Information about self-care, treatment and prevention of DM2 in order to minimize health problems.

***Chanyalew Worku Kassuhun, et al (2017)*** conducted study on knowledge, attitude, practice of non Diabetes community members of south east Ethiopia. Systematic random sampling was used for this study. The researcher has taken 605 respondents as the sample size. Based on analysis and interpretation limited knowledge, attitude and practices were seen. A great emphasis on health education regarding symptoms and risk factors modification for Diabetes are necessary.

*Anju Gautam, et al (2016)* this study was conducted to assess the level of Diabetes related health knowledge, attitude and practice among Diabetic patients. On-probability sampling technique was selected for these study.244 Diabetic respondents were selected in Nepol. 52.5 % respondents were female, 18 % were illiterate, and 24.6 % were from rural residence. Graduated and above level of education people had sufficient knowledge .Illiterate people had insufficient knowledge. The researcher reveals the potential Diabetes health literacy needs to be improved or developed for better health promotion.

*Ali Hassan Gillani, et al (2016)* this study revealed Diabetes-related knowledge, attitudes, and practices in the general population in Punjab (Pakistan). A cross-sectional study was conducted in five districts in Punjab. 85.9% of respondents had heard of Diabetes, and 30.1% knew about the glucose tolerance test. The researcher found 2.3% of respondents scored zero for Diabetes knowledge. Knowledge of Diabetes risk factors, management, and care is low in Pakistan's general population. The researcher suggested targeted public education programs should be instigated at a national level to increase understanding of Diabetes prevention and treatment.

*M SueSirkman, et al (2016)* from American Diabetes association to assess the Diabetes in Older adults with Diabetes have the highest rates of major lower-extremity amputation , myocardial infarction , visual impairment, and end-stage renal disease of any age-group. Those aged ≥75 years have higher rates than those aged 65–74 years for most complications. Deaths from hyperglycemic crises also are significantly higher in older adults (although rates have declined markedly in the past 2 decades). Those aged ≥75 years also have double the rate of emergency department visits for hypoglycemia than the general population with Diabetes. Aged ≥75 years of Diabetic patients had

health knowledge needs to be improved for better health promotion regarding hypoglycemic condition.

## 2.1.4 LITERATURE RELATED TO HEALTHY LIFESTYLE BEHAVIOR OF TYPE II DIABETES MELLITUS

*Sanjay Kumar Gupta, et al (2018)* this study aims to assess knowledge, attitude and practice about Diabetes among Diabetic patients. This study was conducted in Tribhuvan University Teaching Hospital General Practice OPD. All the Diabetic cases attending to OPD were taken for a sample size of 120. This study shows that patient's knowledge about foot care and practice of Diet plan was not appreciable. Patient's attitude and practice about Diabetes was also not significant. Diabetes health knowledge needs to be improved for better health promotion.

*Fakir M, et al (2018)* this study was conducted to assess the Knowledge, Attitudes and Practice towards the general community regarding Type 2 Diabetes mellitus in rural Bangladesh. Cluster random sampling technique was used for this study. 3104 respondents participated. Only 4% knew what a glucose tolerance test and only 50% reported that they knew physical inactivity was a risk factor. The researcher suggests increasing knowledge of Diabetes and its complications by conducted public health programmes.

*Nafisa Tanjia, et al (2018)* this study was conducted to assess the knowledge, attitude, practice among Diabetic patients Bangladesh.202 respondents were selected for this study. Most of respondents reported regular routine follow up Diet and exercise for Controlling Diabetes.46.67% respondents had poor glycemic Control.62.38% respondents performed self blood sugar test due to lack of knowledge

*Waqassami, et al (2017)* this study was conducted to assess the relationship between Diabetes mellitus and Dietary habits. One of the

reasons for Diabetes Diet, physical activity and smoking. Dietary habits and sedentary lifestyle practices are the major factors for rapidly rising incidence of Diabetes. Through this study the researcher suggest encouraging awareness about Diabetes complications and consequent improvement in Dietary knowledge, attitude, and practices lead to better Control of the disease. Appropriate self-care and better quality of life.

*Nita g forouhi, et al (2017)* this study was conducted to show the Dietary and nutritional approaches for prevention and management of Type II Diabetes. Through this study the researcher said about Medical nutrition therapy to guide a systematic and evidence based approach to the management of Diabetes through Diet. The researcher reveals to promote healthy life style behavior.

*Girish M (2017)* conducted study to assess awareness and knowledge about Diabetes The study subjects were drawn from a representative sample of four geographical regions of India, Chandigarh, Tamil Nadu, Jharkhand and Maharashtra representing North, South, East and West and covering a population of 213 million. A total of 16,607 individuals (5112 urban and 11,495 rural) aged ≥20 years were selected from 188 urban and 175 rural areas. Only 43.2% of the overall study population had heard about a condition called Diabetes. Overall urban residents had higher awareness rates (58.4%) compared to rural residents (36.8%) . About 46.7% of males and 39.6% of females reported that they knew about a condition called Diabetes. Knowledge and awareness about Diabetes in India, particularly in rural areas, is poor. The researcher suggested increasing Knowledge and awareness about Diabetes in India, particularly in rural areas.

# CHAPTER- III
# RESEARCH METHODOLOGY

The chapter deal with the description of the methods and different steps used for collecting and organizing data, such as the research approach, research design, variables, setting of study, population, sample, sample size, sampling technique, criteria for sample selection, developing and description of the tool, ethical consideration, content validity, pilot study, reliability, data collection procedures and plan for data analysis.

## 3.1RESEARCH APPROACH

A quantitative approach was approach was adopted for this study in order to accomplish the objectives.

## 3.2 STUDY DESIGN

In this study, the investigator ensures non random selection or non random allocation. To be precise the research design selected in this study is quasi Experimental non- randomized Control group design. In this design study subjects are selected by convenient sampling technique.

*Quasi Experimental non- randomized Control group design*

| Group | Pre-test | Intervention | Post-test |
|---|---|---|---|
| Experimental group | 01 | X- Home Based Diabetic Management Programme (HBDMP) | 02 |
| Control group | 03 | - | 04 |

*The symbols used*

**01 & 03 Pre-test**– Collection of demographic data, Pre-test to assess the knowledge andHealthy Life Style Behavioramong   Type II Diabetic clients in Experimental and Control group.

**X Intervention –** provide Home Based Diabetic Management Programme(HBDMP) among Type II Diabetic clients in Experimental group.

**02&04 -** Assess the Post-test level of knowledge and Healthy Life Style Behaviorregarding Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients in Experimental and Control group.

## 3.3 SETTING OF THE STUDY

This setting for this study was conducted in Urban Primary Health Centre at Choolai, Chennai-112.

## 3.4 DURATION OF THIS STUDY

This study was conducted for a period of four weeks from 20.01.2020 to 15.02.2020.

## 3.5 STUDY POPULATION

It includes who are attending NCD clinic in Urban Primary Health Centre, Choolai, Chennai.

### 3.5.1 Target Population

Type II Diabetic clients those who are attending NCD Clinic at Urban Primary Health Centre. Choolai, Chennai and who are available during the period of Data collection

### 3.5.2 Accessible Population

Type II Diabetic client's age of 40-60 years who are attending NCD clinic at Urban Primary Health Centre, Choolai, Chennai and who are available during the period of data collection.

**3.6 SAMPLE**

In this study the sample includes Type II Diabetic clients   age of 40-60 years, who are attending NCD clinic in Urban Primary Health Centre, Choolai,  Chennai who fit into the inclusion criteria was selected as samples.

**3.7 SAMPLE SIZE**

Sample size consists of 60 Type II Diabetic clients.30 Diabetic clients were in Experimental Group and 30 Diabetic clients were in Control Group

**3.8 SAMPLING CRITERIA**

*3.8.1 Inclusion Criteria*

❖   Age of 40-60 years both male and female of Type II Diabetic clients who are attending NCD clinic.

❖   Age of 40-60years of Type II Diabetic clients who are attending NCD clinic in Urban Primary Health Centre, Choolai willing to participate in this study.

❖   Age of 40-60 years of Type II Diabetic clients who are available at the time of data collection.

*3.8.2 Exclusion Criteria*

❖   Age of 40-60 years of Type II Diabetic clients who are not interested to participate in this study.

❖   Age 40-60 years of population who are not present at the time of data collection.

**3.9 SAMPLING TECHNIQUE**

The sampling technique employed in this study was non probability convenient sampling technique.

## 3.10 RESEARCH VARIABLE OF THE STUDY

Assess the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients. Variables are concepts which can take different values at different situation

### 3.10.1 Independent Variable

Home Based Diabetic Management Programme (HBDMP)among Type II Diabetic clients.

### 3.10.2 Dependent Variable

Knowledge andHealthy Life Style Behaviorof Type II Diabetic clients.

### 3.10.3 Demographic Variable

Age, gender, religion, educational status ,family income ,Type of Diet, Life Style Habits, Source of information.

## 3.11 DEVELOPMENT AND DESCRIPTION OF TOOL

Semi structured questionnaire was used to know about the knowledge among Type II Diabetic clients and likert-scale questionnaire was used to know about theHealthy Life Style Behavior among Type II Diabetic clients

### 3.11.1 Development Of The Tool

The investigator adopted the following steps that was carried out in preparing the questionnaires.

**Literature Review:** Literature from books, journals, and newspaper article were received and used to develop the assessment tools.

**Expert's opinion:** the investigator discussed with the experts and incorporated their valuable suggestion in the format of the assessment of tool.

### 3.11.2 Description Of The Tool

### Section-A

This Section Consists Of information About Demographic Variables Such as Age, Gender, Religion, Marital Status , Educational Status, Monthly Income , Life Style Habits , Type Of family, Source Of information related To Diabetes Mellitus.

### Section-B

This section deals with semi-structured knowledge questionnaire of Type II Diabetes mellitus. It consists of 10 multiple choice questionnaires. The concept of developing questionnaire includes Diabetes mellitus is a condition characterized by Increased Blood Sugar, Signs and Symptoms, Organ which is responsible for Diabetes Mellitus, Hormone Defect responsible Diabetes Mellitus, Normal Fasting Blood Sugar, Blood Glucose Level is Controlled, Recommended Physical Activity, Complications, Risk Factors Of Type II Diabetes Mellitus.

### Section-C

This section deals with questionnaire for the assessment of Home Based Diabetic Management Programme (HBDMP) on Healthy Life Style Behavior. It consists of 20 Likert-scale questionnaire. The concept of developing questionnaire includes7 questions related to exercise, 9questions related to Diet, 2 questions related to blood sugar monitoring, 8 questions related to complications,4 questions related to drug adherence of Type II Diabetes mellitus.

## 3.12 SCORE INTERPRETATION

### *Section- B*

A semi structured questionnaire was used to assess the knowledge regarding Type II Diabetes mellitus .It consists of 10 multiple choice questions. Each correct answer will be given the score one. Wrong answer will be given the score zero. The total possible score will be 10.

### SCORE  INTERPRETATION

Min=0 Max=1 Total questions=10 Maximum marks= 10

| S.No. | Level of knowledge | Score | % |
|-------|--------------------|-------|---|
| 1. | Inadequate knowledge | ≤5 | 0-50% |
| 2. | Moderate knowledge | 5.1–7.5 | 51%-75% |
| 3. | Adequate knowledge | 7.6 - 10 | 76%-100% |

### *Section-C*

It consists of 20 Likert-scale questionnaire. Each correct answer will be given minimum score and maximum score three. Wrong answer will be given the score zero. The total possible score will be 60.

### HEALTHY LIFE STYLE  BEHAVIOURSCORE INTERPRETATION

Min=1 Max=3 Total questions=20 Maximum score= 60

| S.No. | Level of healthy life style behavior | Score | % |
|-------|--------------------------------------|-------|---|
| 1. | Poor | 0 - 30 | 0-50% |
| 2. | Moderate | 31 - 45 | 51%-75% |
| 3. | Good | 46 - 60 | 76%-100% |

## 3.13 CONTENT VALIDITY

Validity refers to the degree to which an instrument measures what is supposed to measure. The demographic data with the objective of the study were given to the 4 nursing experts,1 medical officer, and 1 statistician. They have given certain suggestions regarding tool, method of data collection. I have incorporated these suggestions in to my study.

## 3.14 ETHICAL CONSIDERATION

The study was proposed and submitted to the ethical committee, Madras Medical College and the committee approved the study. All respondents were carefully informed about the purpose of the study and their part during the study. Informed consent for the study was obtained from all participants. Confidentiality of the subject information was maintained. Thus the investigator followed the ethical guidelines, which were issues by the research committee. Necessary permission to conduct the study was requested and obtained from City Medical Officer, Chennai. The study was done without any violation of human rights.

*Human rights*

❖ The study was proposed among the experts of the Institutional Ethics Committee and got the permission to carry out the study.

❖ The study details was also explained to the City Medical Officer, Greater Chennai Corporation to carry out the study in the Primary Health Centre coming under the ambit of Chennai and got the permission.

❖ The content validity was received from the various experts in the Community Health Nursing.

*Beneficence*

❖ Potential benefits and risks were explained to the samples.

*Dignity*

- ❖ Participants were informed about the study in detail and ensured their participation.

- ❖ Informed consent was obtained from the participants.

- ❖ Freedom was given to the participants in opting to participate in the study or withdrawal from the study.

*Confidentiality*

- ❖ Confidentiality and anomity pledge was ensured. The study participants were also ensured for maintaining the confidentiality of their details.

*Justice*

- ❖ The study participants were treated with justice.

- ❖ The content of the community based health intervention was also taught to the participants of the Control group through the booklets after the post test.

## 3.15 RELIABILITY OF THE TOOL

Reliability of the tool was assessed by using test-retest method and cronbach alpha method. Knowledge score reliability correlation coefficient value was 0.84 and behavior score reliability correlation coefficient value was 0.87. These correlation coefficient very high and it is good tool for assessing effectiveness of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients at Urban Primary Health Centre, Chennai. Hence the tool was considered highly reliable for proceeding with the study.

## 3.16 PILOT STUDY

Pilot study is a preliminary trial to the actual study. Prior permission from the authorities was obtained and individual consent was taken from 6 Type II Diabetic clients, selected for the study .The study was conducted in Urban Primary Health Centre, Choolai, Chennai for a period of one week. The purpose of was explained to the subjects.6 clients who meet the inclusion criteria were selected using convenient sampling technique. The first 3 samples were selected as Experimental group and the next 3 samples were selected as Control group. On the first day Pre-test was done for both Control group and Experimental group by using semi-structured questionnaire and likert-scale questionnaire .Home Based Diabetic Management Programme given with using handouts and Bookltet for Experimental group for 7 days under the supervision of the investigator. Post-test was conducted for both Control group and Experimental group on the 8$^{th}$ day by using semi-structured questionnaire and likert-scale questionnaire. Data were analyzed by using descriptive and inferential statistics. The findings revealed that the study is reliable, feasible and practicable to conduct the main study.

## 3.17 DATA COLLECTION PROCEDURE

The plan of data collection for the proposed study is as follows, Formal Permission Was Obtained From Deputy Commissioner (Health) Greater Chennai Corporation, Ripon Building, Chennai-03 and Medical Officer Of Urban Primary Health Centre, Choolai ,Chennai for conducting the study. The data collection was done from 20.01.2020 to 15.02.2020. The investigator selected samples from 40 to 60 years. The Diabetic clients were assured that the collected information will be kept confidential. By convenient sampling technique were selected. Pilot study samples were excluded from the main samples. All the respondents were carefully informed about the purpose of the study and

their part during the study and how the privacy was guarded. Ensured that confidentiality of the study result will be maintained .Freedom was given to the Diabetic clients to leave the study at their will without assigning any reason. After establishing a good rapport with the Diabetic clients, written consent was obtained from the Diabetic clients. The semi structured questionnaire and likert-scale questionnaire were filled by them. Approximately 4 to 5 samples were selected per day. A convenient time and date was fixed and informed to the participants. As there were 10 questions on knowledge a time limit of 15 minutes was given to complete the questionnaire and 20 questions on Healthy Lifestyle Behaviour a time limit of 30 minutes was given to complete the questionnaire. Impact of Home Based Diabetic Management Programme (HBDMP) were taught to the Type II Diabetic clients by showing booklet, handout.

*Table-3.1: Intervention Protocol*

| S. No | Protocal | Experimental Group | Control Group |
|---|---|---|---|
| 1 | Place | Urban Primary Health Centre, Choolai, Chennai. | Urban Primary Health Centre,, Choolai, Chennai. |
| 2 | Intervention | Home Based Diabetic Management Programme (HBDMP) | - |
| 3 | Duration | 4 weeks | 4 weeks |
| 4 | Frequency | Morning / Evening | |
| 5 | Time | 30 mins | - |
| 6 | Mode of teaching | Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients  with using handout, booklet presentation. | No Intervention |

| 7 | Administrator | Investigator | Investigator |
|---|---|---|---|
| 8 | Recipient | Type II Diabetic clients of age group40-60 years | Type II Diabetic clients of age group40-60 years |

## 3.18 PLAN FOR DATA ANALYSIS

*Data Entry*

Entered the data into the excel sheet and coding the data into SPSS statistical packages system.

*Data Analysis*

The collected data were analyzed by using descriptive and inferential statistics.

### *3.18.1. Descriptive Statistics*

The demographic variables and clinical variables in categories were given in frequencies with their percentages. Knowledge score given in Mean and standard deviation.

### *3.18.2 Inferential Statistics*

❖ **Paired' t' test** was used to compare the Pre-test and Post-test level of knowledge and Healthy Life Style Behavior regarding Home Based Diabetic Management Programme( HBDMP) among Type II Diabetic clients

❖ **Independent ' t' test** was used to compare the Pre-test and Post-test level of knowledge and Healthy Life Style Behavior regarding Home Based Diabetic Management Programme ( HBDMP) among Type II Diabetic clients between Experimental and Control group.

❖ **Chi-Square test and Extended McNemar's test** was used to find out the association between Post-test level of knowledge and

Healthy Life Style Behavior regarding Home Based Diabetic Management Programme( HBDMP) among Type II Diabetic clients with their selected demographic variables in Experimental group

❖ Impact and generalization of study result was given in percentage with 95% CI and Mean difference with 95%CI.

❖ Simple bar diagram, multiple bar diagram, and box plot were used to represent the data. P value of<_0.005 was considered statistically significant and two tailed test were used for significance testing.

# FIG 3.1 SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

Quantitative Approach

↓

Non-Randomized Control Group,Quasi-Experimental Design

↓

Target population Type II Diabetic clients who are attending NCD clinic at Urban Primary Health Centre, Choolai, Chennai

↓

Accessible population 40-60 years of Type II Diabetic clients who are attending NCD clinic at Urban Primary Health Centre, Choolai, Chennai.

↓

Convenient Sampling Technique

↓

Sample size – 60

|  |  |
|---|---|
| Experimental Group (n=30) | Control Group (n=30) |

↓

Pre-test to assess the levels of knowledge and Healthy Life Style Behaviour among Type II Diabetic clients

↓

Impact of Home Based Diabetic Management Programme (HBDMP) for experimental Group

↓

Post-test to assess levels of knowledge and Healthy Life Style Behaviour among Type II Diabetic clients

↓

Data Analysis and Interpretation of Results

↓

Findings

↓

Report Dissemination of Findings

# CHAPTER – IV
# DATA ANALYSIS AND INTERPRETATION

Analysis is defined as categorizing, ordering and summarizing the manipulating the data to obtain answer to research questions. The purpose of analysis is to reduce the data to interpretable form so that the relation to each problem can be studied and tested.

Descriptive statistics (frequency and percentage) was used for demographic variables. Inferential statistics was used for analysis of Mean values ('t' test) and chi-square test was used for association with demographic variables.

This chapter deals with the description of tool, report of the pilot study, reliability, validity, informed consent ,scoring procedure, scoring interpretation, data collection procedure and statistical analysis.

## ORGANIZATION OF DATA

The collected data were tabulated and presented according to the objectives under the following sections:

**Section-A**: Frequency and Percentage distribution of demographic variables of Type II Diabetic clients in Experimental and Control group.

**Section-B**: Assessment of Pre-test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients in Experimental and Control group

**Section–C:** Assessment of Post-test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients in Experimental and Control group.

**Section-D:** Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients in Experimental group

**Section–E:** Compare the Pre-test and Post-test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients in Experimental and Control group

**Section -F:** Association between Post-test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients in Experimental group and their selected demographic variables

**SECTION A: FREQUENCY AND PERCENTAGE DISTRIBUTION OF TYPE II DIABETIC CLIENTS BASED ON DEMOGRAPHIC VARIABLE**

*Table-4.1: frequency and percentage distribution of Type II Diabetic clients based on demographic profile.*

| Demographic variables | | Group | | | |
|---|---|---|---|---|---|
| | | Experimental (n=30) | | Control (n=30) | |
| | | N | % | n | % |
| Age | 40 -45 years | 4 | 13.33% | 7 | 23.33% |
| | 46 -50 years | 5 | 16.67% | 8 | 26.67% |
| | 51 -55 years | 9 | 30.00% | 4 | 13.33% |
| | 56 -60 years | 12 | 40.00% | 11 | 36.67% |
| Gender | Male | 12 | 40.00% | 17 | 56.67% |
| | Female | 18 | 60.00% | 13 | 43.33% |
| Religion | Hindu | 26 | 86.67% | 26 | 86.66% |
| | Christian | 3 | 10.00% | 2 | 6.67% |
| | Muslim | 1 | 3.33% | 2 | 6.67% |
| Marital Status | Unmarried | 4 | 13.33% | 2 | 6.67% |
| | Married | 21 | 70.00% | 25 | 83.33% |
| | Widow/widower | 3 | 10.00% | 3 | 10.00% |
| | Separated | 2 | 6.67% | 0 | 0.00% |
| Education status | No Formal  literate | 13 | 43.33% | 13 | 43.33% |
| | Primary education | 8 | 26.67% | 11 | 36.67% |
| | Middle School | 9 | 30.00% | 6 | 20.00% |
| | Higher Secondary School | 0 | 0.00% | 0 | 0.00% |
| | Graduate and above | 0 | 0.00% | 0 | 0.00% |

| Demographic variables | | Group | | | |
|---|---|---|---|---|---|
| | | Experimental (n=30) | | Control (n=30) | |
| | | N | % | n | % |
| Monthly income | <Rs.5600 | 4 | 13.79% | 8 | 26.66% |
| | Rs.5600-.9300 | 7 | 24.14% | 11 | 36.67% |
| | Rs.9300-.14000 | 18 | 62.07% | 11 | 36.67% |
| | Rs.14000- 19000 | 0 | 0.00% | 0 | 0.00% |
| | >Rs.19000 | 0 | 0.00% | 0 | 0.00% |
| Life Style Habits | Smoking | 6 | 20.00% | 7 | 23.33% |
| | Alcoholism | 2 | 6.67% | 6 | 20.00% |
| | Betel Leaves | 12 | 40.00% | 8 | 26.67% |
| | None of the above | 10 | 33.33% | 9 | 30.00% |
| Type of family | Single | 2 | 6.67% | 1 | 3.33% |
| | Nuclear Family | 15 | 50.00% | 15 | 50.00% |
| | Joint Family | 13 | 43.33% | 14 | 46.67% |
| | Extended Family | 0 | 0.00% | 0 | 0.00% |
| Type of Diet | Vegetarian | 2 | 6.67% | 1 | 3.33% |
| | Non-Vegetarian | 28 | 93.33% | 29 | 96.67% |
| Source of information | Profession | 6 | 20.00% | 5 | 16.67% |
| | Experience by self, family, relatives. | 24 | 80.00% | 25 | 83.33% |
| | News paper, journal | 0 | 0.00% | 0 | 0.00% |
| | Others | 0 | 0.00% | 0 | 0.00% |

Above table 4.1 shows the demographic information of Type II Diabetic clients those who are participated for the following study "Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients at Urban Primary Health Centre,

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Chennai". Similarity of demographic distribution between Experimental and Control group was calculated using chi- square test.

**AGE:** Maximum 40% patients belongs to (56-60years) age group in Experimental group and in Control group Majority 36.67% patients belongs to (56-60years) age group

**GENDER:** 40% belongs to male gender and Majority 60% belongs to female gender in Experimental group and 56.67 male gender and 43.33% belongs to female gender in Control group.

**RELIGION:** Majority 86.67% patients belongs to Hindu in Experimental group and in Control group 86.66% patients belongs to Hindu

**MARITAL STATUS:** Majority 70% participants are married in Experimental and 83.3% married Control group

**EDUCATIONAL QUALIFICATION:** Maximum 43.33 % had no formal literate in Experimental group and Majority 43.33 % had no formal literate in Control group.

**FAMILY MONTHLY INCOME:** Majority 62.07% Family income is Rs.9300-14000 in Experimental group and in Control group 36.67% Familyincome is Rs.9300-14000

**LIFE STYLE HABITS:** Maximum 40% having betel leaves in Experimental group and 26.67% having betel leaves in Control group

**TYPE OF FAMILY:** Majority 50% belongs to nuclear Family in Experimental group and in Control group 50% belongs to nuclear family.

**TYPE OF DIET :** Maximum 93.33% belongs to non-vegetarian in Experimental group and 96.67% belongs to non-vegetarian in Control group

**SOURCE OF INFORMATION:** Majority 80% belongs to Experience by self ,family and relatives in Experimental group and 83.33% belongs to Experience by self ,family and relatives in Control group

*Figure-4.1: Age Distribution of  Diabetic Clients*
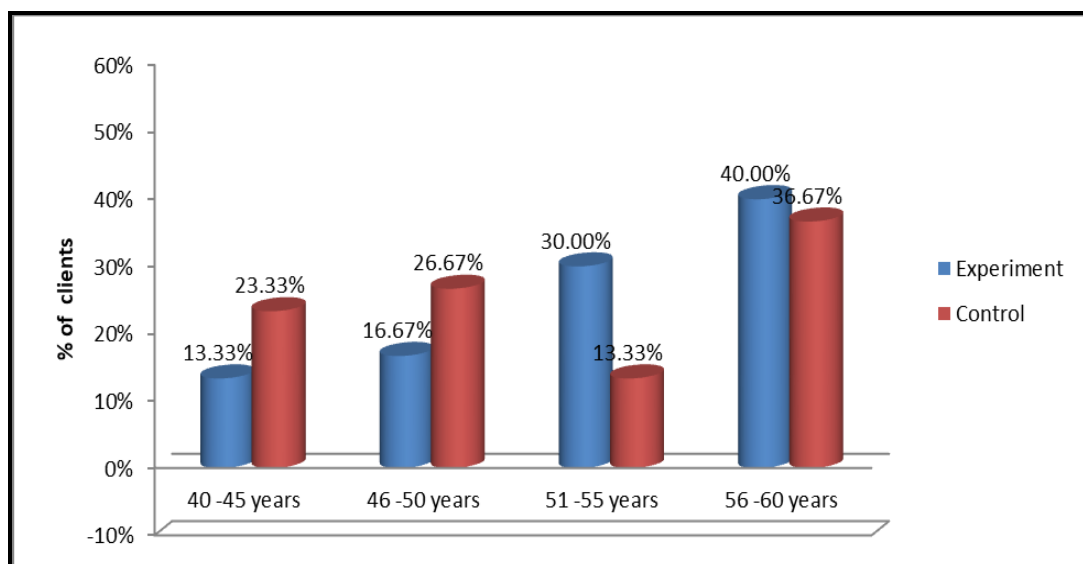


Fig 4.1 shows Maximum 40% patients belongs to (56-60years) age group in  Experimental group and in Control group Majority 36.67% patients belongs to (56-60years) age group

*Figure-4.2: Gender Distribution of Diabetic Clients*
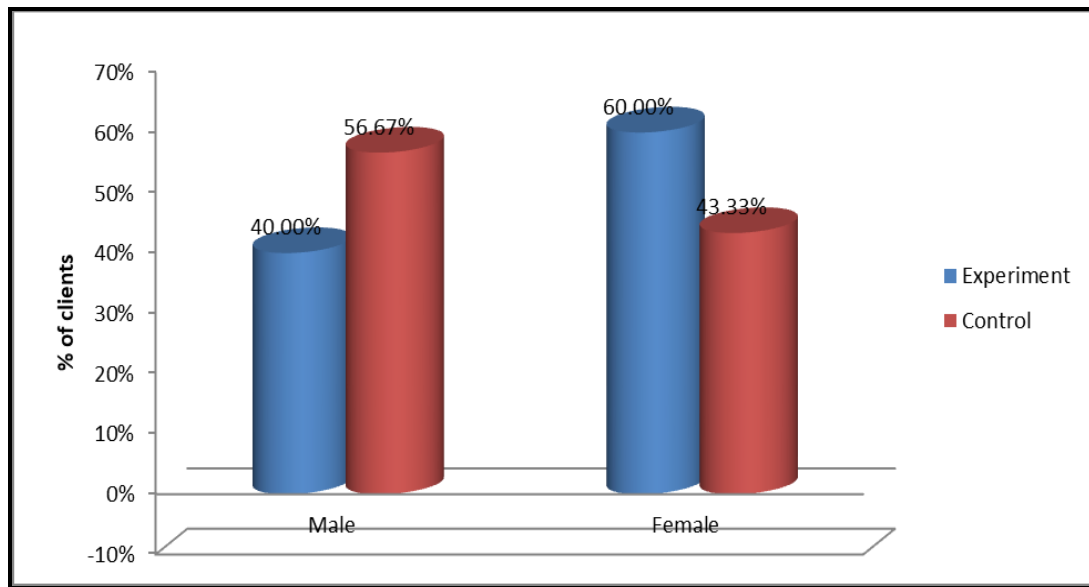


Figure 4.2 shows 40% belongs to male gender and maximum 60% belongs to female gender in Experimental group and 56.67 male gender and 43.33% belongs to female gender in Control group.

*Figure-4.3: Religion Of Diabetic Clients*
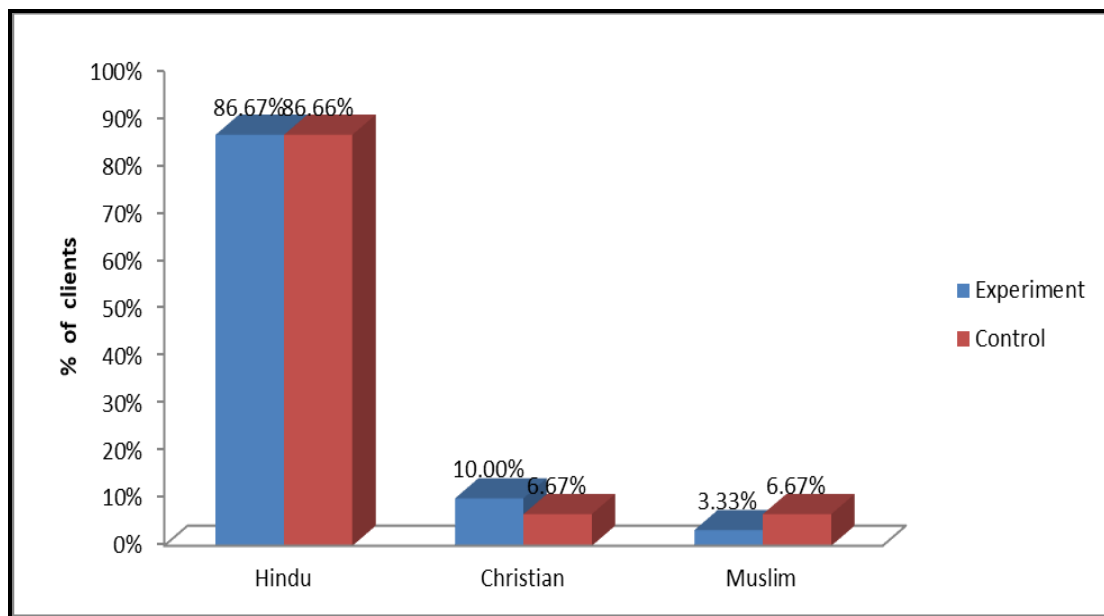


Figure 4.3 shows Maximum 86.67% patients belongs to Hindu in Experimental group and in Control group 86.66% patients belongs to Hindu

*Figure-4.4: Marital Status of Diabetic Clients*
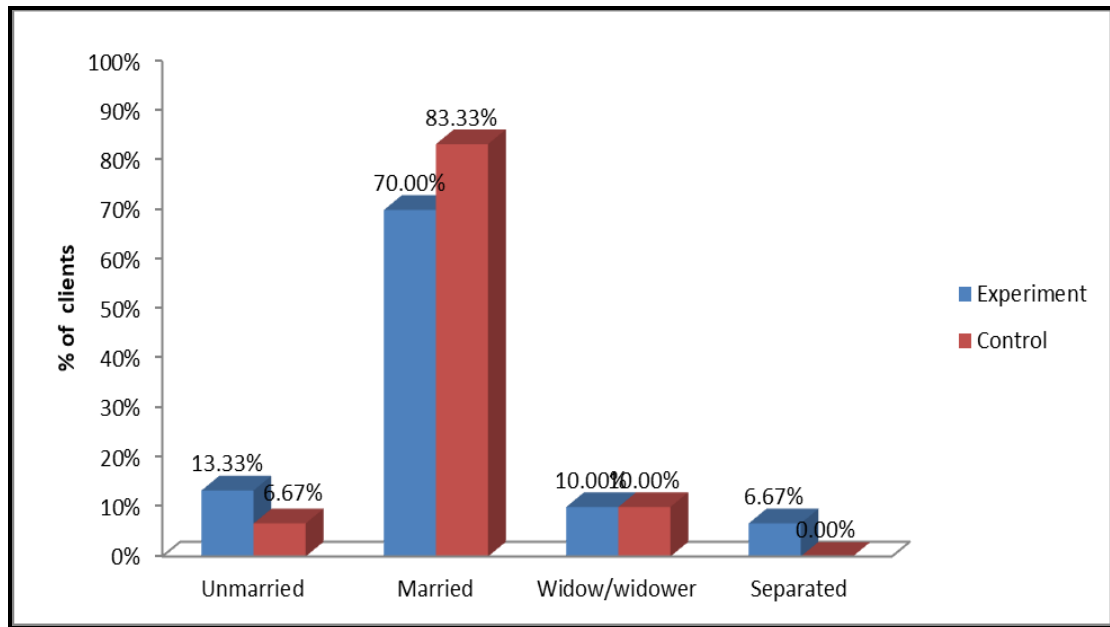


Figure 4.4 shows 70% participants are married in Experimental and 83.3% married Control group

*Figure-4.5: Educational Status of Diabetic Clients*
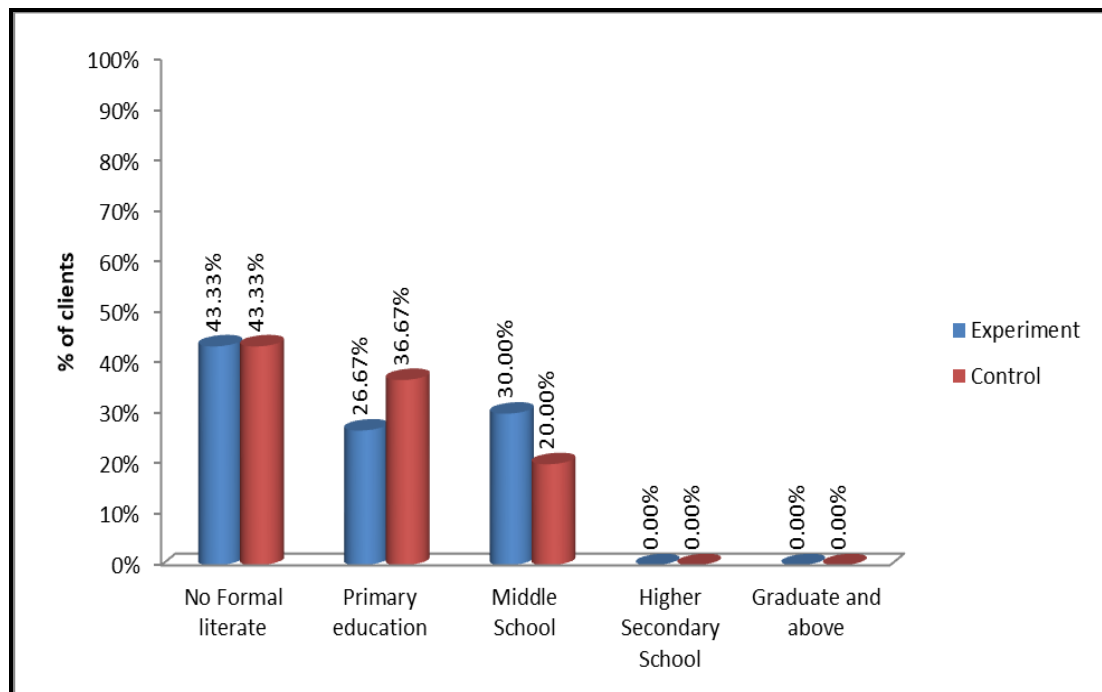


Figure 4.5 shows Maximum 43.33 % had no formal literate in Experimental group and maximum 43.33 % had no formal literate in Control group.

*Figure-4.6: Income Status of Thefamily of Diabetic Clients*
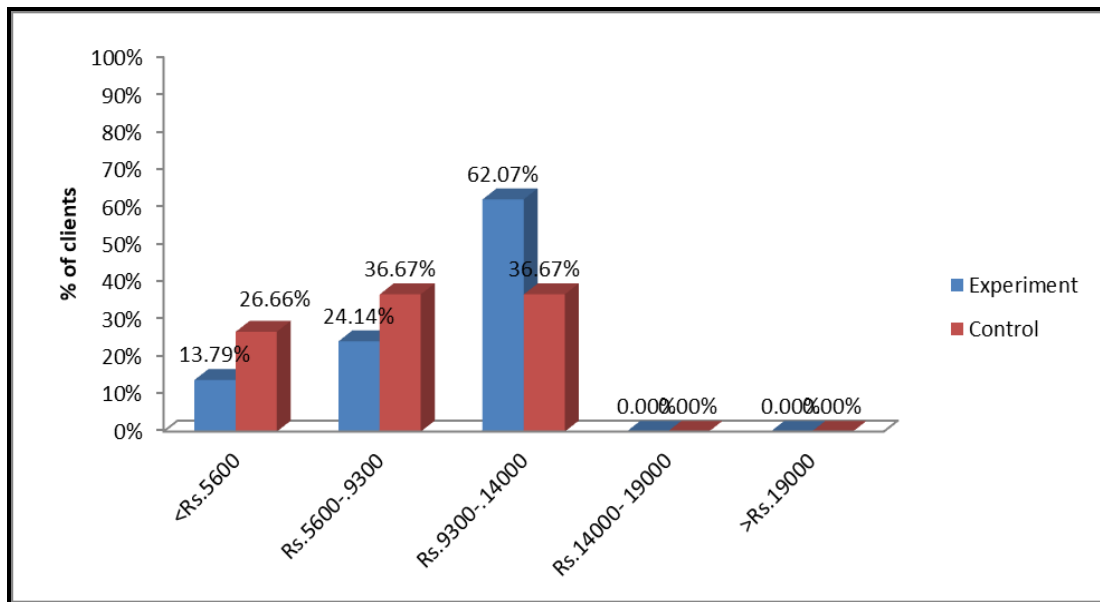


Figure 4.6 shows Maximum 62.07% Family income is Rs.9300-14000 in Experimental group and in Control group 36.67%Familyincome is Rs.9300-14000

*Figure-4.7: Life Style Habits of Diabetic Clients*
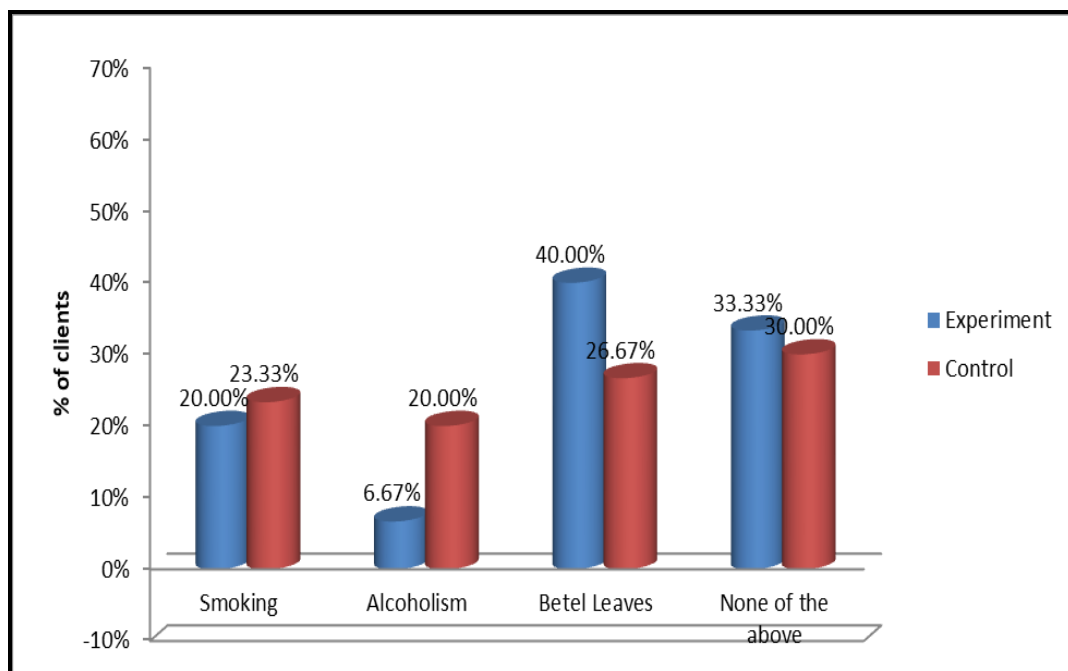


Figure 4.7 shows Maximum 40% having betel leaves in Experimental group and 26.67% having betel leaves in Control group

*Figure-4.8: Type Of Family Of Diabetic Clients*
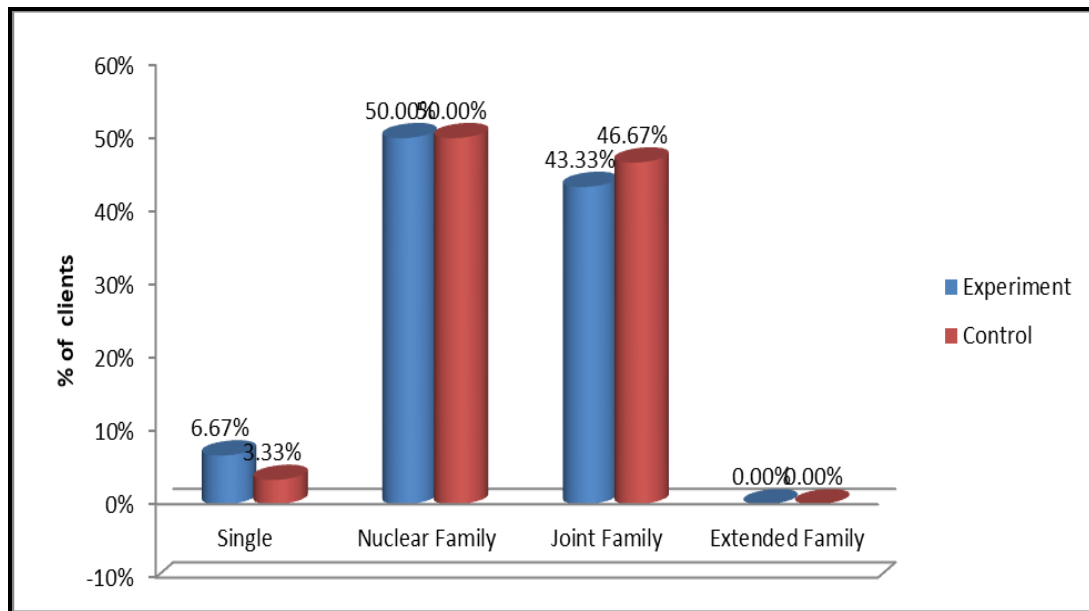


Figure 4.8 shows Maximum 50% belongs to nuclearFamilyin Experimental group and in Control group 50% belongs to nuclear family.

*Figure-4.9: Type Of Diet Of Diabetic Client*
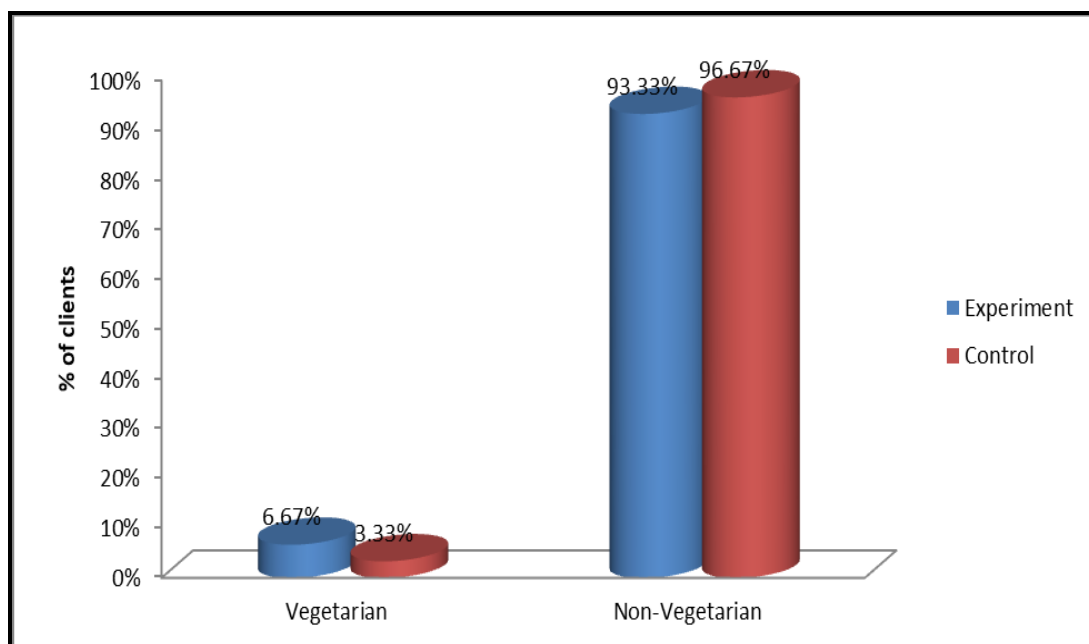


Figure 4.9 shows Maximum 93.33% belongs to non-vegetarian in Experimental group and 96.67% belongs to non-vegetarian in Control group

*Figure-4.10:   Source Of information Of  Diabetic Client*
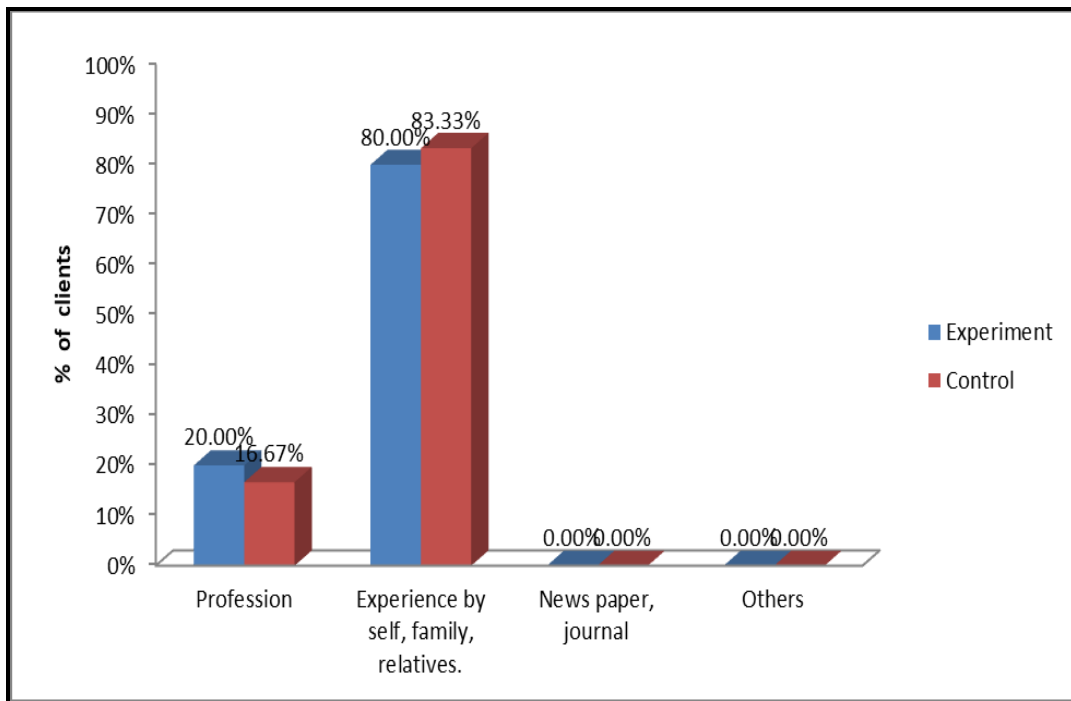


Figure 4.10 shows Maximum 80% belongs to Experience by self ,family and relatives in Experimental group and 83.33% belongs to Experience by self ,family and relatives in Control group

**SECTION-B: DESCRIPTION OF PRE-TEST LEVEL OF KNOWLEDGE AND HEALTHY LIFE STYLE BEHAVIOR AMONG TYPE II DIABETIC CLIENTS IN EXPERIMENTAL AND CONTROL GROUP**

*Table-4.2:  Pre-Test Level Of Knowledge Score*

| Level of knowledge | Experimental | | Control | | Chi-square test |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Inadequate | 19 | 63.33% | 21 | 70.00% | $\chi 2=0.30$ p=0.58(NS) |
| Moderate | 11 | 36.67% | 9 | 30.00% | |
| Adequate | 0 | 0.00% | 0 | 0.00% | |
| Total | 30 | 100.00% | 30 | 100.00% | |

Above table 4.2 compares the Pre-test level of knowledge scores between Experimental and Control group among Type II Diabetic clients.

Before Home Based Diabetic Management Programme (HBDMP), in Experimental group, 63.33% of the clients are having inadequate level of knowledge score, 36.67% of them having moderate level of score and none of them are having adequate level knowledge of score.

In Control group, 70.00% of the clients are having inadequate level of knowledge score, 30.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

Statistically there is no significant difference between Experimental and Control group. It was calculated by using chi-square test.

***Table-4.3: Comparison Of Mean Pre-Test Level Of Knowledge Score***

| Group | n | Mean PSS score | Std. Deviation | Mean difference | Student's independent t-test |
|---|---|---|---|---|---|
| Experimental | 30 | 4.53 | 1.61 | 0.23 | t=0.57p=0.56 DF=58, not significant |
| Control | 30 | 4.30 | 1.54 | | |

p>0.05 not significant DF=Degrees of Freedom

Above table 4.3 shows the comparison of Pre-test Mean Knowledge score before administration of Home Based Diabetic Management Programme (HBDMP). On an average, Experimental group clients are having 4.53 knowledge score and Control group clients are having 4.30 knowledge score, so the difference is 0.23 knowledge score. This difference is small and it is not statistically significant difference. Statistical significance was calculated by using student's independent 't'test.

***Table-4.4: Comparison Of Pre-Test Level Of Healthy Life Style Behaviour Score***

| Level of Healthy Life Style Behavior score | Experimental | | Control | | Chi-square test |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Poor | 24 | 80.00% | 23 | 76.67% | $\chi 2=0.10$ p=0.75(NS) |
| Moderate | 6 | 20.00% | 7 | 23.33% | |
| Good | 0 | 0.00% | 0 | 0.00% | |
| Total | 30 | 100.00% | 30 | 100.00% | |

P>0.05 not significant

Above table 4.4 compares the prêt-test level of Healthy Life Style Behavior score between Experimental and Control group clients.

Before Home Based Diabetic Management Programme, in Experimental group, 80.00% of the clients are having poor level of score, 20.00% of them having moderate level of score and none of them are having good level of score.

In Control group, 76.67% of the clients are having poor level of score, 23.33% of them having moderate level of score and none of them are having good level of score.

Statistically there is no significant difference between Experimental and Control group. Level of behavior score between Experimental and Control group was calculated using chi-square test.

***Table-4.5: Comparison Of Overall Mean Pre-Test Healthy Life Style Behaviour score***

| Group | n | MeanHealthy Life Style Behaviorscore | Std. Deviation | Mean difference | Student's independent t-test |
|-------|---|--------------------------------------|----------------|-----------------|------------------------------|
| Experimental | 30 | 25.00 | 5.53 | 1.00 | t=0.81 P=0.42 DF = 58, (NS) |
| Control | 30 | 24.00 | 3.94 | | |

p>0.05 not significant DF=Degrees of Freedom

Above table 4.5 shows the comparison of Pre-test Mean Behavior score before administration of Home Based Diabetic Management Programme. On an average, Experimental group clients are having 25.00 score and Control group clients are having 24.00 score, so the difference is 1.00 score. This difference is small and it is not statistically significant difference. Statistical significance was calculated by using student's independent 't'test.

**SECTION C: DESCRIPTION OF POST-TEST LEVEL KNOWLEDGE AND HEALTHY LIFE STYLE BEHAVIOR AMONG TYPE II DIABETIC CLIENTS IN EXPERIMENTAL GROUP**

*Table-4.6: Post-Test Level Of Knowledge Score*

| Level of knowledge | Experimental | | Control | | Chi-square test |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Inadequate | 0 | 0.00% | 18 | 60.00% | $\chi2=42.31$ $p=0.001***(S)$ |
| Moderate | 7 | 23.33% | 12 | 40.00% | |
| Adequate | 22 | 76.67% | 0 | 0.00% | |
| Total | 30 | 100.00% | 30 | 100.00% | |

P>0.05 not significant NS= not significant

Above table 4.6 compares the Post-test level of knowledge score between Experimental and Control group among Type II Diabetic clients.

After Home Based Diabetic Management Programme (HBDMP), in Experimental group, none of the clients are having inadequate level of knowledge score, 23.33% of them having moderate level of score and 76.67% of them are having adequate level of score.

In Control group, 60.00% of clients are having inadequate level of knowledge score, 40.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

Statistically there is a significant difference between Experimental and Control group. Levels of knowledge score between Experimental and Control group was calculated using chi-square test.

*Table-4.7: Comparison Of Post-Test Mean Knowledge Score*

| Group | N | Mean PSS score | Std. Deviation | Mean difference | Student's independent t-test |
|-------|---|----------------|----------------|-----------------|------------------------------|
| Experimental | 30 | 7.80 | 0.96 | 3.27 | t=10.14p=0.56 DF=58, not significant |
| Control | 30 | 4.53 | 1.48 | | |

p>0.05 not significant DF=Degrees of Freedom

Above table 4.7 shows the comparison of Post-test Mean Knowledge score after administration of Home Based Diabetic Management Programme.

On an average, Experimental group clients are having 7.80 knowledge score and Control group clients are having 4.53 knowledge score, so the difference is 3.27 knowledge score. This difference is large and it is statistically significant difference. Statistical significance was calculated by using student's independent 't'test.

*Table-4.8: Post-Test Level Of Healthy Life Style Behaviour Score*

| Level of Healthy Life Style Behaviorscore | Experimental | | Control | | Chi-square test |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Poor | 0 | 0.00% | 19 | 63.33% | $\chi2=41.47$ p=0.001***(S) |
| Moderate | 8 | 26.67% | 11 | 36.67% | |
| Good | 22 | 73.33% | 0 | 0.00% | |
| Total | 30 | 100.00% | 30 | 100.00% | |

***p≤0.001very high significant S= significant DF=Degrees of Freedom

Above table 4.8 compares the Post-test level of healthy life style behavior score between Experimental and Control clients.

After Home Based Diabetic Management Programme, in Experimental group, none of the clients are having poor level of score, 26.67% of them having moderate level of score and 73.33% of them are having good level of score.

In Control group, 63.33% of the clients are having poor level of score, 36.67% of them having moderate level of score and none of them are having good level of score.

Statistically there is no significant difference between Experimental and Control group. Level of behavior score between Experimental and Control group was calculated using chi-square test.

***Table-4.9: Comparison Of Overall Mean Post Test Healthy Life Style Behaviour Score***

| Group | n | MeanHealthy Life Style Behaviorscore | Std. Deviation | Mean difference | Student's independent t-test |
|---|---|---|---|---|---|
| Experimental | 30 | 47.50 | 6.55 | 21.80 | t=12.68p=0.001*** DF = 58, (S) |
| Control | 30 | 25.70 | 6.76 | | |

***p≤0.001very high significant S= significant DF=Degrees of Freedom

Above table 4.9 shows the comparison of Post-test Mean Healthy Life Style Behavior score after administration of Home Based Diabetic Management Programme.

On an average, Experimental group clients are having 47.50 score and Control group clients are having 25.70 score, so the difference is 21.80 score. This difference is large and it is statistically significant difference. Statistical significance was calculated by using student's independent 't'test.

## SECTION-D: IMPACT OF HOME BASED DIABETIC MANAGEMENT PROGRAMME AMONG TYPE II DIABETIC CLIENTS IN EXPERIMENTAL GROUP

*Table-4.10: Impact Of Home Based Diabetic Management Programme And Generalization Of Knowledge Gain Score*

| Group | Test | Maximum score | Mean score | % of Mean score | Mean Difference of knowledge gain score with 95% Confidence interval | Percentage Difference of knowledge gain score with 95% Confidence interval |
|---|---|---|---|---|---|---|
| Experimental | Pre-test | 10 | 4.53 | 45.30% | 3.27 (2.44 – 4.09) | 32.70% (24.40% – 40.90%) |
| | Post-test | 10 | 7.80 | 78.00% | | |
| Control | Pre-test | 10 | 4.30 | 43.00% | 0.23 (-0.07 – 0.53) | 2.30% (-0.70% – 5.30%) |
| | Post-test | 10 | 4.53 | 45.30% | | |

Above table 4.10 shows the Impact of Home Based Diabetic Management Programme on knowledge score among the clients.

Experimental group gained 32.70% knowledge score after having intervention whereas Control group reduced only 2.30% knowledge score.

Differences and generalization of knowledge gain score between Pre-test and Post-test score was calculated using and Mean difference with 95% CI and proportion with 95% CI.

*Table-4.11: Impact Of Home Based Diabetic Management Programme And Generalization Of Healthy Life Style Behaviour Gain Score*

| Group | Test | Maximum score | Mean score | % of Mean score | Mean Difference ofHealthy Life Style Behaviorgain score with 95% Confidence interval | Percentage Difference ofHealthy Life Style Behaviorgain score with 95% Confidence interval |
|---|---|---|---|---|---|---|
| Experimental | Pre-test | 60 | 25.00 | 41.67% | 22.50 (19.82 – 25.18) | 37.50% (33.03% – 41.97%) |
| | Post-test | 60 | 47.50 | 79.17% | | |
| Control | Pre-test | 60 | 24.00 | 40.00% | 1.70 (-0.97 – 4.37) | 2.83% (-1.62% – 7.28%) |
| | Post-test | 60 | 25.70 | 42.83% | | |

Above table 4.11shows the Impact of Home Based Diabetic Management Programme and generalization of Healthy Life Style Behavior gain score of the clients.

Experimental group reduced 37.50% Behavior score after having intervention whereas Control group gained only 2.83% Behavior score after Home Based Diabetic Management Programme.

Differences and generalization of Behavior gains core between Pre-test and Post-test score was calculated using and Mean difference with 95% CI and proportion with 95% CI.

**SECTION-E: COMPARE THE PRE-TEST AND POST TEST LEVEL OF KNOWLEDGE SCORE AMONG TYPE II DIABETIC CLIENTS IN EXPERIMENTAL AND CONTROL GROUP**

*Table-4.12: Comparison Of Pre-Test and Post-Test Level Of Knowledge Score In Experimental and Control Group*

| | Level | Pre-test | | Post-test | | Extended McNemar's test |
|---|---|---|---|---|---|---|
| | | n | % | n | % | |
| **Experimental** | Inadequate | 19 | 63.33% | 0 | 0.00% | $\chi2=24.14$ p=0.001***DF=2 significant |
| | Moderate | 11 | 36.67% | 7 | 23.33% | |
| | Adequate | 0 | 0.00% | 23 | 76.67% | |
| | Total | 30 | 100.00% | 30 | 100.00% | |
| **Control** | Inadequate | 21 | 70.00% | 18 | 60.00% | $\chi2=3.00$ p=0.08 DF=1 Not significant |
| | Moderate | 9 | 30.00% | 12 | 40.00% | |
| | Adequate | 0 | 0.00% | 0 | 0.00% | |
| | Total | 30 | 100.00% | 30 | 100.00% | |

Fig11***p<0.001 very high significant DF=Degrees of Freedom

Above table 4.12 compares the Pre-test and Post-test level of knowledge score among clients.

In Experimental group, in Pre-test, 63.33% of the clients are having inadequate level of knowledge score, 36.67% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

In Post-test, none of the clients are having inadequate level of knowledge score, 23.33% of them having moderate level of knowledge score and 76.67% of them are having adequate level of knowledge score. Statistically there is a significant difference between Pre-test and Post-test score.

In Control group, in Pre-test, 70.00% of the clients are having inadequate level of knowledge score, 30.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

In Post-test, 60.00% of the clients are having inadequate level of knowledge score, 40.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

Pre-test and Post-test knowledge score was calculated using Extended McNemar's test

*Figure-4.11: Comparison Of Pre-Test and Post-Test Level Of Knowledge Score*
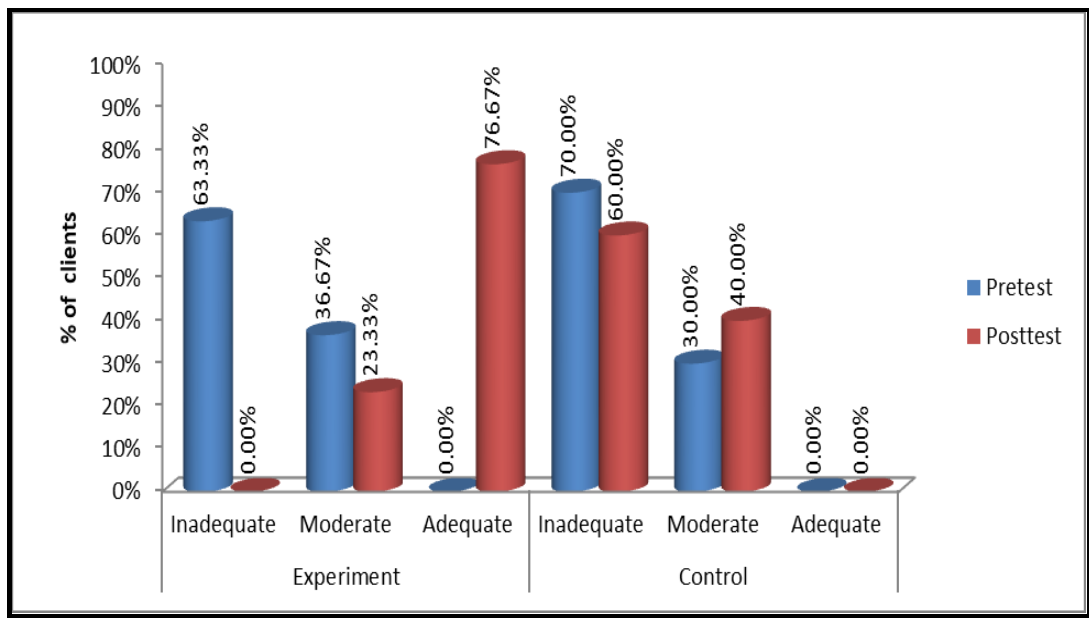
***Table-4.13: Comparison Of Pre-Test and Post-Test Mean Knowledge  Score***

| Group | | n | Mean | SD | Mean Knowledge reduction score | Student's paired t-test |
|---|---|---|---|---|---|---|
| Experimental | Pre-test | 30 | 4.53 | 1.61 | 3.27 | t=8.09 p=0.001*** DF=29 significant |
| | Post-test | 30 | 7.80 | .96 | | |
| Control | Pre-test | 30 | 4.30 | 1.53 | 0.23 | t=1.56 p=0.13 DF=29 Not significant |
| | Post-test | 30 | 4.53 | 1.48 | | |

Fig12***p<0.001 very high significant DF=Degrees of Freedom

p>0.05 not significant

Above table 4.13 compares the Pre-test and Post-test Knowledge score among clients of Experimental and Control group, Considering Experimental group Knowledge score, in Pre-test they are having 4.53 Knowledge score and in Post-test they are having 7.80Knowledge score, so the difference is 3.27, this difference is large and it is statistically significant. Considering Control group Knowledge score, in Pre-test they are having 4.30Knowledge score and in Post-test they are having 4.53Knowledgescore, so the difference is 0.23, this difference is small and it is not statistically significant. Statistical significance difference between Pre-test and Post-test was calculated using student's paired t-test.

***Figure-4.12: Compares Of Pre-Test and Post-Test Mean
Knowledge   Score***



Fig 4.12: Plot diagram with 95% Standard Error bar diagram compares the Pre-test and Post-test Knowledge score in Experimental group and Control group of Type II Diabetic clients.

***Table-4.14: Comparison Of Pre-Test and Post-Test Level Of  Healthy Life Style Behaviour Score Experimental and Control Group***

| | Level | Pre-test | | Post-test | | Extended McNemar's test |
|---|---|---|---|---|---|---|
| | | N | % | n | % | |
| Experimental | Poor | 24 | 80.00% | 0 | 0.00% | χ2=26.50 p=0.001***(S) |
| | Moderate | 6 | 20.00% | 8 | 23.33% | |
| | Good | 0 | 0.00% | 22 | 76.67% | |
| | Total | 30 | 100.00% | 30 | 100.00% | |
| Control | Poor | 23 | 76.67% | 19 | 63.33% | χ2=2.67 p=0.10(NS) |
| | Moderate | 7 | 23.33% | 11 | 36.67% | |
| | Good | 0 | 0.00% | 0 | 0.00% | |
| | Total | 30 | 100.00% | 30 | 100.00% | |

Fig13***p≤0.001 very high significant

Above table 4.14 compares the level of Healthy Life Style Behavior score between Pre-test and Post-test score.

In Experimental group, in Pre-test, 80.00% of the clients are having poor level score and 20.00% of them having moderate level of score and none of them are having good level of score. In Post-test, none of the clients are having poor level score and 23.33% of them having moderate level of score and 76.67% of them are having severe level of score. Statistically there is a significant difference between Pre-test and Post-test score.

In Control group, in Pre-test, 76.67% of the clients are having poor level score, 23.33% of them having moderate level of score and none of them are having good level of score. In Post-test, 63.33% of the clients are having poor level score and 36.67% of them having moderate level of score and none of them are having good level of score. Statistically there is no significant difference between Pre-test and Post-test score.

Pre-test and Post-test score was calculated using Extended McNemar's test

***Figure-4.13: Pre-Test and Post-Test Level Of Healthy Life Style Behaviour Score***
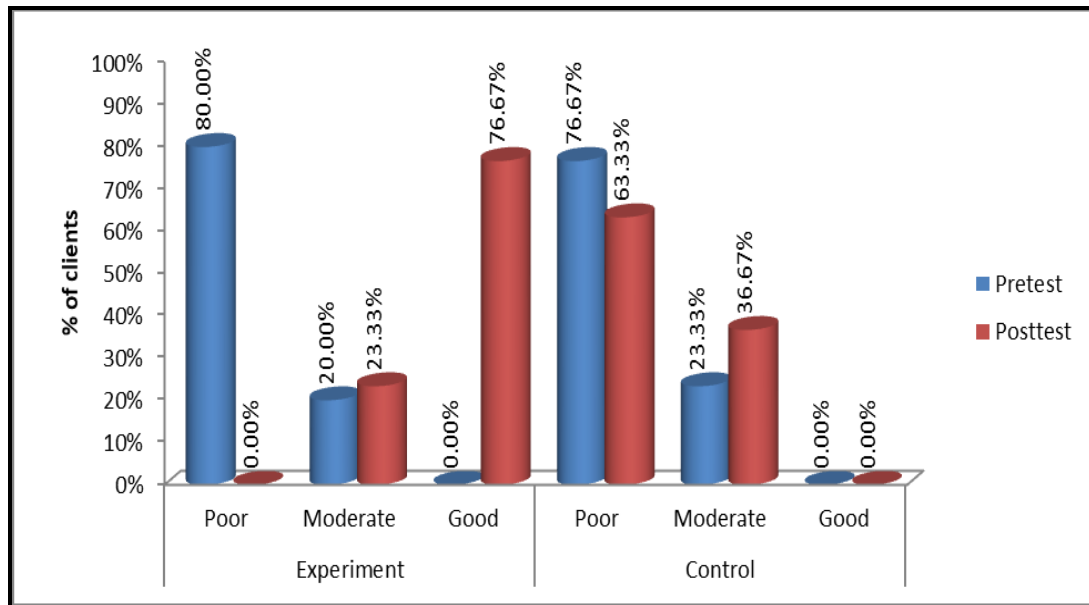


***Table-4.16: Comparison Of Pre-Test and Post-Test Mean Healthy Life Style Behaviour Score***

| Group | | n | Mean | SD | Mean gain score | Student's paired t-test |
|---|---|---|---|---|---|---|
| Experimental | Pre-test | 30 | 25.00 | 5.53 | 22.50 | t=17.19 p=0.001*** DF=29 significant |
| | Post-test | 30 | 47.50 | 6.55 | | |
| Control | Pre-test | 30 | 24.00 | 3.94 | 1.70 | t=1.30 p=0.20 DF=29 not significant |
| | Post-test | 30 | 25.70 | 6.76 | | |

*Fig14*\*\*\*p<0.001 very high significant DF=Degrees of Freedom

p>0.05 not significant

Considering Experimental group, in Pre-test they are having 25.00 score and in Post-test they are having 47.50 score, so the difference is 22.50, this difference is large and it is statistically significant.

Considering Control group, in Pre-test they are having 24.00 score and in Post-test they are having 25.70score, so the difference is 1.70, this difference is small and it is not statistically significant.

Statistical significance difference between Pre-test and Post-test was calculated using student paired t-test

***Figure-4.14: Compares The Pre-Test and Post-Test Level Of Healthy Life Style Behaviour Score Among Experimental Group And Control Group***
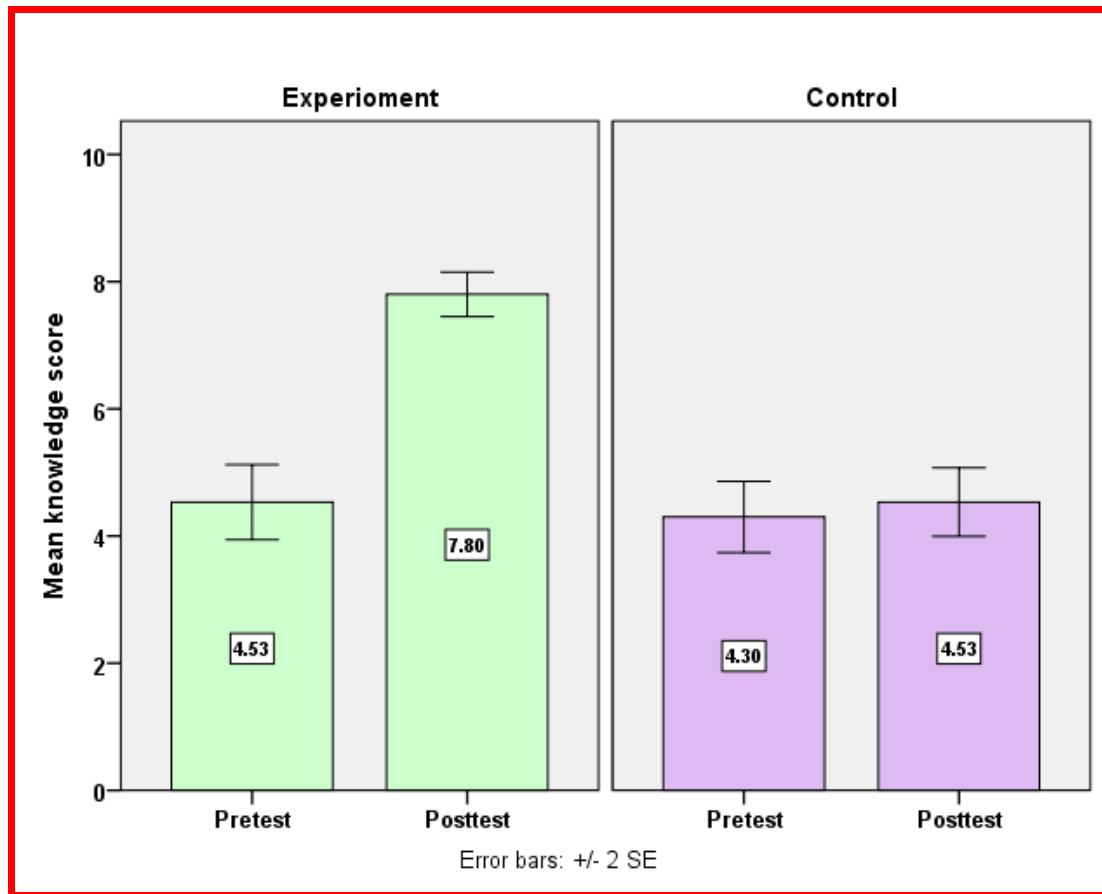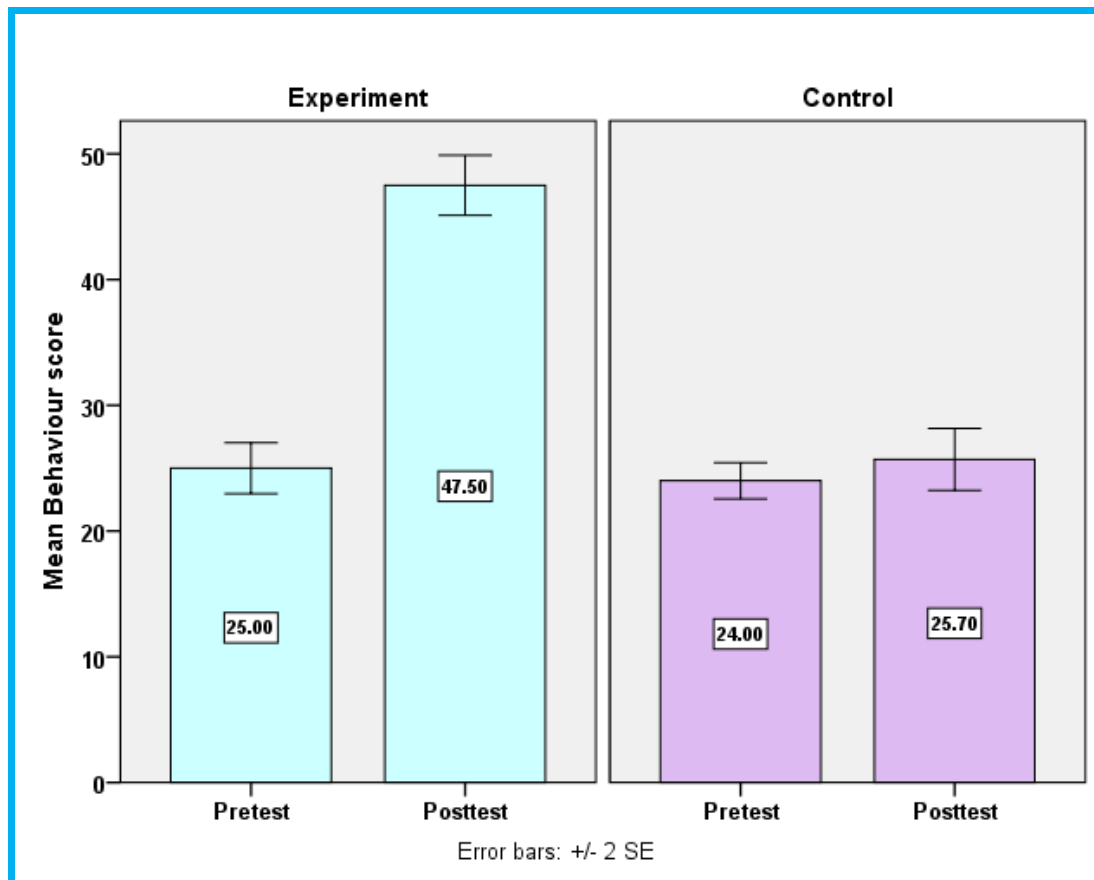


Fig4. 14: Plot diagram with 95% Standard Error bar diagram compares the Pre-test and Post-test level of Healthy Life Style Behavior score among Experimental and Control group.

***Table4.15: Correlation between Pre-test and Post-test Knowledge score and Healthy Life Style Behavior score***

| | | Correlation between | Mean score Mean±SD | Karl pearson Correlation coefficient | Interpretation |
|---|---|---|---|---|---|
| Experimental | Pre-test | Knowledge Vs healthy life style Behavior | 4.53±1.61 25.00±5.53 | r=0.12 p=0.47 | positive poor correlation |
| | Post-test | Knowledge Vs healthy life style Behavior | 7.80±0.96 47.50±6.55 | r= 0.52 p=0.001*** | positive moderate correlation |
| Control | Pre-test | Knowledge Vs healthy life style Behavior | 4.30±1.53 24.00±3.94 | r= 0.16 p=0.40 | positive poor correlation |
| | Post-test | Knowledge Vs healthy life style behavior | 4.53±1.48 25.70±6.76 | r= 0.18 p=0.31 | positive poor correlation |

***In Experimental group,***

Considering Pre-test, there is not significant positive poor correlation between Pre-test Knowledge score and Pre-test Healthy Life Style Behavior score. It Means Knowledge increases and their Healthy Life Style Behavior score also increases poorly.

Considering Post-test, there is a significant positive moderate correlation between Post-test Knowledge score and Post-test Healthy Life Style Behavior score. It Means Knowledge increases and their Healthy Life Style Behavior score also increases moderately.

***In Control group,***

Considering Pre-test, there is not significant positive poor correlation between Pre-test Knowledge score and Pre-test Healthy Life Style Behavior score. It Means Knowledge increases and their Healthy Life Style Behavior score also increases poorly.

Considering Post-test, there is not significant positive poor correlation between Pre-test Knowledge score and Pre-test Healthy Life Style Behavior score. It Means Knowledge increases and their Healthy Life Style Behavior score also increases poorly

***Interpretation for r-value***

Karl Pearson correlation coefficient is denoted by "r"

"r" always lies between -1  to  +1

0.0 – 0.2     Poor correlation

0.2 - 0.4     Fair correlation

0.4 - 0.6     Moderate correlation

0.6 – 0.8     Substantial correlation

0.9- 1.0      Strong correlation

**SECTION-E : ASSOCIATION BETWEEN POST -TEST LEVEL OF KNOWLEDGE AND Healthy Life Style Behavior AMONG TYPE II DIABETIC CLIENTS IN EXPERIMENTAL GROUP AND THEIR SELECTED DEMOGRAPHIC VARIABLES**

*Table-4.17: Association Between Post-Test Level Of Knowledge Score and Demographic Variables Of Clients (Experimental Group)*

| Demographic variables | | Post-test level of Knowledge score | | | | | | n | Chi-square test |
|---|---|---|---|---|---|---|---|---|---|
| | | Inadequate | | Moderate | | Adequate | | | |
| | | n | % | n | % | n | % | | |
| Age | 40 -45 years | 0 | 0.00% | 0 | 0.00% | 4 | 100.00% | 4 | χ2=8.26 p=0.05*(S) |
| | 46 -50 years | 0 | 0.00% | 0 | 0.00% | 5 | 100.00% | 5 | |
| | 51 -55 years | 0 | 0.00% | 1 | 11.11% | 8 | 88.89% | 9 | |
| | 56 -60 years | 0 | 0.00% | 6 | 50.00% | 6 | 50.00% | 12 | |
| Education status | No Formal literate | 0 | 0.00% | 5 | 38.46% | 8 | 61.54% | 13 | χ2=6.51 p=0.05*(S) |
| | Primary education | 0 | 0.00% | 2 | 25.00% | 6 | 75.00% | 8 | |
| | Middle School | 0 | 0.00% | 0 | 0.00% | 9 | 100.00% | 9 | |
| | Higher Secondary School | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | |
| | Graduate and above | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | |
| Life Style Habits | Smoking | 0 | 0.00% | 4 | 66.67% | 2 | 33.33% | 6 | χ2=9.60 p=0.02*(S) |
| | Alcoholism | 0 | 0.00% | 1 | 8.33% | 1 | 91.67% | 2 | |
| | Betel Leaves | 0 | 0.00% | 1 | 16.67% | 11 | 83.33% | 12 | |
| | None of the above | 0 | 0.00% | 1 | 10.00% | 9 | 90.00% | 10 | |

Above table 4.17 shows the association between Post-test level of Knowledge score and Demographic variables among Experimental group.

40-50 years aged clients, Middle school educated clients and Healthy Life Style Habits of clients are having more adequate knowledge score than others.

It was confirmed by using chi square test.

*Figure-4.15: Association Between Post-Test Level Of Knowledge - Score and Clients age*
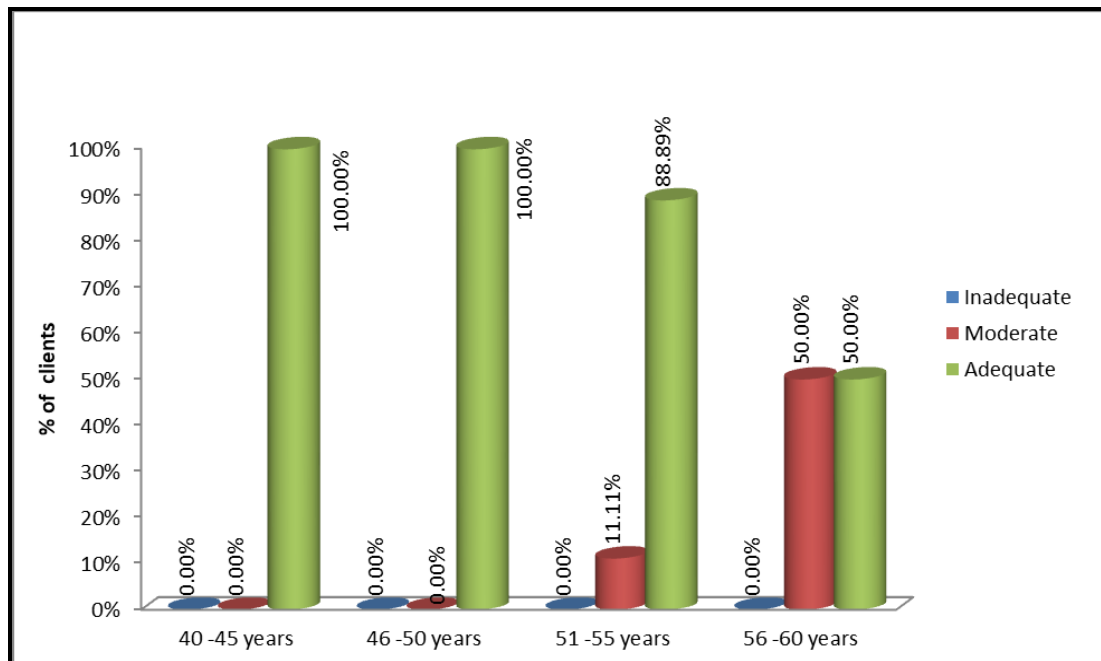


Figure 4.15 shows 40-50 years aged clients are having more adequate knowledge score than others.

Figure 4.16 shows Middle school educated clients are having more adequate knowledge  score than others.

*Figure-4.17: Post-Test Levelof Knowledge and Clients Lifestyle Habits*
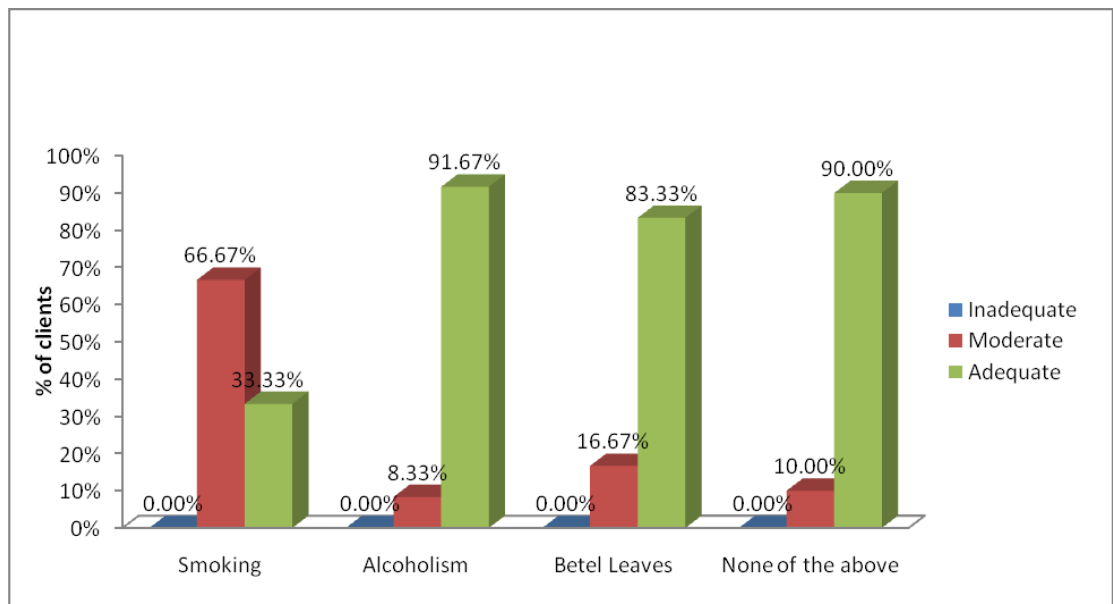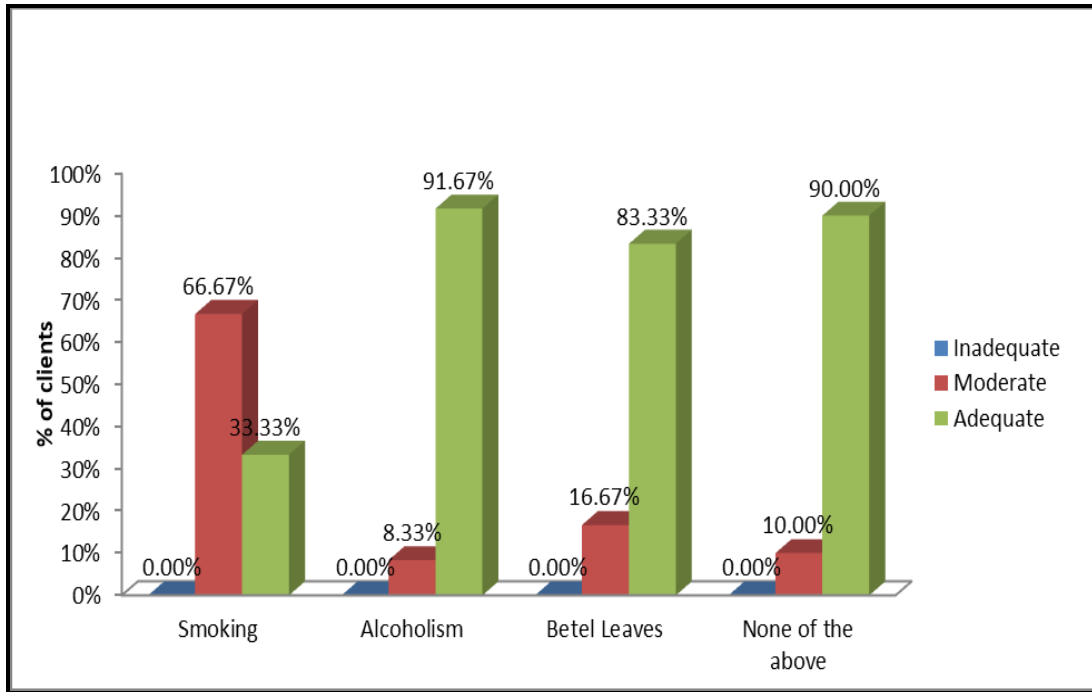
Figure 4.16 shows Healthy Life Style Habits of clients are having more adequate knowledge score than others.

*Table-4.18: Association Between Post-Test Level Healthy Life Style Behaviour Score and Demographic Variables Of Clients (Experimental)*

| Demographic variables | | Post-Test Level Of Healthy Life Style Behavior Score | | | | | | n | Chi-square test |
|---|---|---|---|---|---|---|---|---|---|
| | | Poor | | Moderate | | Good | | | |
| | | n | % | n | % | n | % | | |
| Age | 40 -45 years | | 0.00% | 0 | 0.00% | 4 | 100.00% | 4 | χ2=10.53 p=0.01**(S) |
| | 46 -50 years | 0 | 0.00% | 0 | 20.00% | 5 | 100.00% | 5 | |
| | 51 -55 years | 0 | 0.00% | 1 | 11.11% | 8 | 88.89% | 9 | |
| | 56 -60 years | 0 | 0.00% | 7 | 58.33% | 5 | 41.67% | 12 | |
| Education status | No Formal literate | 0 | 0.00% | 7 | 53.85% | 6 | 46.15% | 13 | χ2=9.00 p=0.01**(S) |
| | Primary education | 0 | 0.00% | 1 | 12.50% | 7 | 87.50% | 8 | |
| | Middle School | 0 | 0.00% | 0 | 0.00% | 9 | 100.00% | 9 | |
| | Higher Secondary School | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | |
| | Graduate and above | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | |
| Life Style Habits | Smoking | 0 | 0.00% | 5 | 83.33% | 1 | 16.67% | 6 | χ2=14.65 p=0.01**(S) |
| | Alcoholism | 0 | 0.00% | 1 | 50.00% | 1 | 50.00% | 2 | |
| | Betel Leaves | 0 | 0.00% | 2 | 16.67% | 10 | 83.33% | 12 | |
| | None of the above | 0 | 0.00% | 0 | 0.00% | 10 | 100.00% | 10 | |

Above table 4.18 shows the association between Post-test level of Healthy Life Style Behavior score and Demographic variables among Experimental group. 40-50 years of aged clients, Middle school educated clients and Healthy Life Style  Habits of clients are having Healthy Life Style Behavior   score than others. It was confirmed using chi-square test.

*Figure-4.18: Association Betwee n Post-Test Level Of Healthy Life Style Behaviour Score and Clients age*
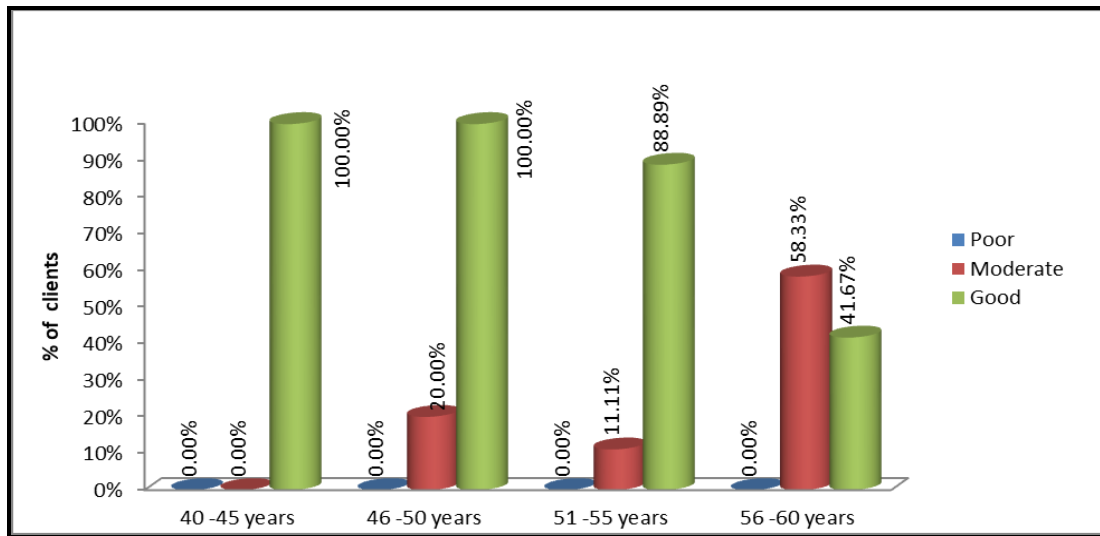


Figure 4.18 shows 40-50 years of aged clients are having Healthy Life Style Behavior   score than others.

*Figure-4.19: Association Between Post-Test Level Of Healthy Life Style Behaviour Score and Clients Education status*
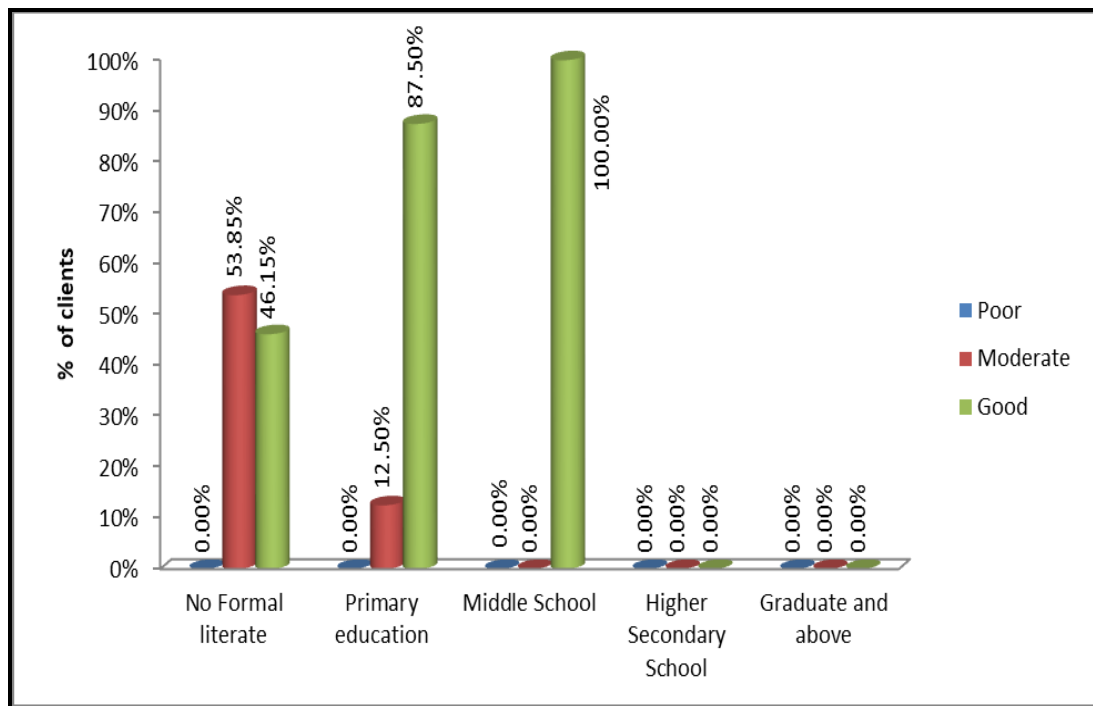


Figure 4.19 shows Middle school educated clients are having Healthy Life Style Behavior  score than others.

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*Figure-4.20: Association Between Post-Test Level Of Healthy Life Style Behaviour Score and Clients Lifestyle Habits*
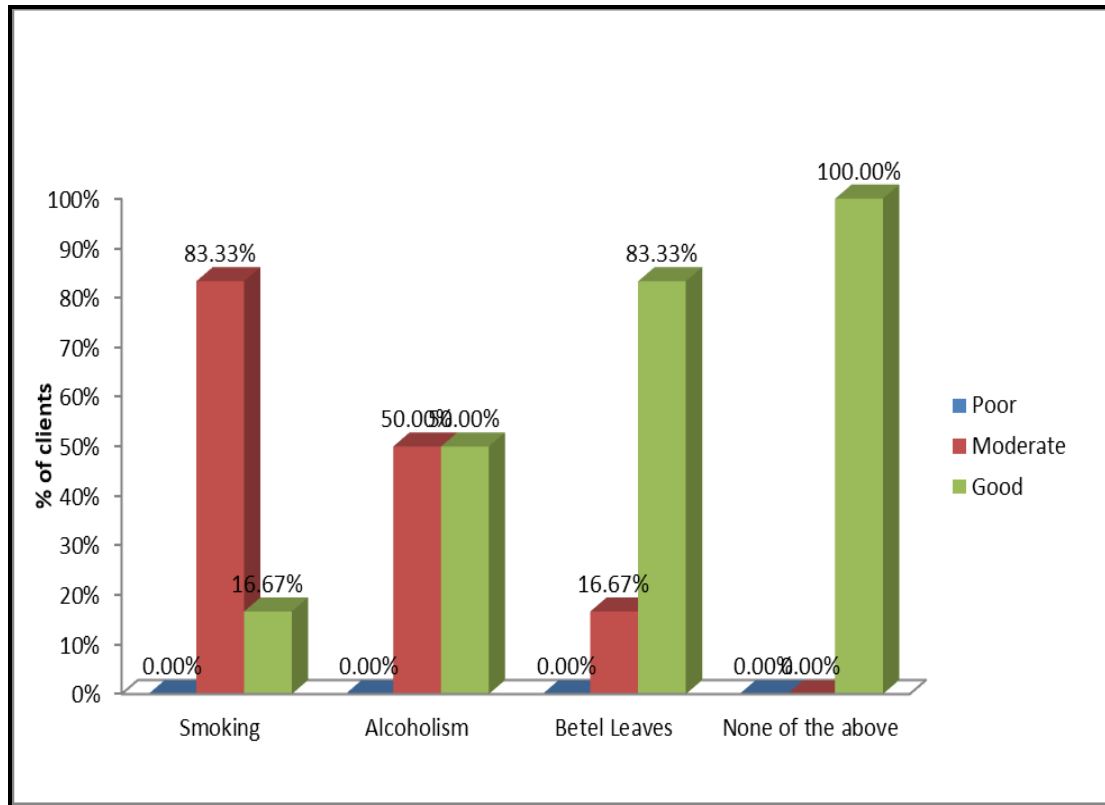


Figure 4.20 shows Healthy Life Style  Habits of clients are havingHealthy Life Style Behavior score than others.

# CHAPTER-V
# DISCUSSIONS

This chapter deals with the discussion of the results of data analyzed based on the objectives of the study and hypothesis. .The study was done in Urban Primary Health Centre, Choolai, Chennai using quasi-Experimental design with 60 sample. The data was analyzed using descriptive and inferential statistics.

## FINDINGS BASED ON DEMOGRAPHIC VARIABLES

**AGE:** Maximum 40% patients belongs to (56-60years) age group in Experimental group and in Control group maximum 36.67% patients belongs to (56-60years) age group

**GENDER:** Majority 40% belongs to male gender and 60% belongs to female gender in Experimental group and 56.67 male gender and 43.33% belongs to female gender in Control group.

**RELIGION:** Maximum 86.67% patients belongs to Hindu in Experimental group and in Control group 86.66% patients belongs to Hindu

**MARITAL STATUS:** Majority 70% participants are married in Experimental and 83.3% married Control group

**EDUCATIONAL QUALIFICATION:** Maximum 43.33 % had no formal literate in Experimental group and 43.33 % had no formal literate in Control group.

**FAMILY MONTHLY INCOME:** Majority 62.07% Family income is Rs.9300-14000 in Experimental group and in Control group 36.67%Familyincome is Rs.9300-14000

**LIFE STYLE HABITS:** Maximum 40% having betel leaves in Experimental group and 26.67% having betel leaves in Control group

**TYPE OF FAMILY:** Majority 50% belongs to nuclear Family in Experimental group and in Control group 50% belongs to nuclear family.

**TYPE OF DIET :** Maximum 93.33% belongs to non-vegetarian in Experimental group and 96.67% belongs to non-vegetarian in Control group

**SOURCE OF INFORMATION:** Majority 80% belongs to Experience by self ,family and relatives in Experimental group and 83.33% belongs to Experience by self ,family and relatives in Control group.

## FINDING BASED ON THE OBJECTIVES

***Objective-1: To Assess The Pre-Test Level Of Knowledge and Healthy Life Style Behavior among Type IIDiabetic Clients In Experimental And Control Group***

The present study shows the analysis of Pre-test level of knowledge score in Experimental group, 63.33% of the clients are having inadequate level of knowledge score, 36.67% of them having moderate level of score and none of them are having adequate level knowledge of score. In Control group, 70.00% of the clients are having inadequate level of knowledge score, 30.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

The Pre-test level of Healthy Life Style Behavior score in Experimental group, 80.00% of the clients are having poor level of score, 20.00% of them having moderate level of score and none of them are having good level of score .In Control group, 76.67% of the clients

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are having poor   level of score, 23.33% of them having moderate level of score and none of them are having good level of score.

The following study was supported ***Waqassami (2017)*** a cross-sectional study involving 184 respondents was conducted at the Diabetic clinic of the IME Kimpese Hospital, DRC. They  administered a Pre-tested questionnaire. Themajority of respondents (72.3%) had poor general knowledge about Diabetes mellitus. Participants scored poorly in areas of the causes (35.6%), risk factors (39.3%), clinical features (34.9%), complications (20.5%) and management (42.4%) of Diabetes mellitus.

***Mervatalous, et al (2019)*** conducted a study to assess the knowledge and practices among Diabetes.1702 respondents were participated in the study. 53.3% respondents had good knowledge scores. 46.3% respondents had positive attitudes against Diabetes. As for practices 37.3% of respondents did not engage in regular exercise. More than half of the respondents had never checked their blood glucose level .This study had suggested the need for more educational interventions to address negative attitudes and promote healthy lifestyle practices.

***M.Deepa, et al (2014)*** study was conducted to assess the knowledge about Diabetes and medical adherence among the Diabetic patients in Maharashtra.  307 respondents were participated in the study. 23.8% participants had good knowledge regarding Diabetes, while 19.2%  had poor knowledge.  The study respondents were lack of knowledge regarding Diabetes and self care. The researcher suggested conducting Seminars, counseling sessions and workshop should be arranged periodically for Diabetic patients to increase their awareness.

From the above discussion it is understood that the majority of the Type II Diabetic clients had lack of knowledge on Type II Diabetes

Mellitus, Poor quality of Healthy Life Style Behavior which seeks the need for the development of Home Based Diabetic Management Programme (HBDMP) for Type II Diabetic clients.

***Objective-2: To Evaluate the Impact Of Home Based Diabetic Management Programme among Type II Diabetic clients In Experimental Group***

The statistical analysis of the present study has showed that there is significant difference between the pre test and Post-test knowledge and Healthy Life Style Behavior score. The Mean Pre-test and Post-test knowledge and Healthy Life Style Behavior score of the present study is improved their knowledge from 37.50% to 41.97% after the administration of Home Based Diabetic Management Programme. In Pre-test they are able to answer only 8 questions before administration of Home Based Diabetic Management Programme, after administration of Home Based Diabetic Management Programme they are able to answer up to 15 questions. Due to Home Based Diabetic Management Programme they are able to answer 7 more questions correctly. This difference is statistically significant. Statistical significance was calculated by using student's paired 't'test. The percentage of knowledge and Healthy Life Style Behavior score of Diabetic clients.

Before Home Based Diabetic Management Programme in Experimental group, 80.00% of the clients are having poor level of score, 20.00% of them having moderate level of score and none of them are having adequate level of score .

After Home Based Diabetic Management Programme (HBDMP), in Experimental group, none of the clients are having inadequate level of knowledge score, 23.33% of them having moderate level of score and 76.67% of them are having adequate level of score. Level of knowledge and Healthy Life Style Behavior score gain of between Pre-test and Post-test was calculated using Generalized McNemar's chi-square test

The present study was supported by ***Gulnaz Karatay, et al (2020)*** the study was conducted as one-group Pre-test-Post-test design. Home visits were carried out once a week for nine weeks for 52 patients. At the completion of the intervention, life-style changes, such as the frequency of Controlling blood glucose, exercise, and increasing vegetable and fruit consumption all produced changes which proved statistically significant and positive. Similarly, in comparison to before the intervention, the results after completion of the intervention showed that the values of patients' weight ($86.28 \pm 13.50$, $80.40 \pm 23:13$), systolic blood pressure ($139.75 \pm 17.53$, $135.31 \pm 17.91$), and postprandial blood glucose ($265.63 \pm 128.63$, $215.48 \pm 69.71$) had all statistically and significantly decreased ($p < 0.05$). This team study created a positive change in terms of managing patients' Diabetes.

***Kucukarslan Aylin, et al (2020)*** the study was to evaluate the effect resistance and home-based walking exercise on glycemic Control, depression and quality of life in Type-2 Diabetes patients. 38 Type-2 Diabetic patients. Resistance exercises were performed in the exercise room twice in a week. The patients were randomly assigned to Experimental or Control group. Each resistance exercise took 45-60 s to complete for a total exercise time of 30 min. All the patients were taking oral glycemic Control medications, no changes in any medications were made throughout the study. The study revealed resistance and home-based walking exercise was effective on glycemic and Control, depression and quality of life in Type-2 Diabetes patients.

Therefore the results proves that through Home Based Diabetic Management Programme among type II Diabetic clients was effective.

***Objective-3: To Compare the Pre-test and Post -test Level Of Knowledge and Healthy Life Style Behavioramong Type II Diabetic Clients in Experimental and Control Group***

The present study shows in Experimental group, in Pre-test, 63.33% of the clients are having inadequate level of knowledge score, 36.67% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score. In Post-test, none of the clients are having inadequate level of knowledge score, 23.33% of them having moderate level of knowledge score and 76.67% of them are having adequate level of knowledge score. Statistically there is a significant difference between Pre-test and Post-test score.

In Control group, in Pre-test, 70.00% of the clients are having inadequate level of knowledge score, 30.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score. In Post-test, 60.00% of the clients are having inadequate level of knowledge score, 40.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

Regarding the level of Healthy Life Style Behavior score in Experimental group, in Pre-test, 80.00% of the clients are having poor level score and 20.00% of them having moderate level of score and none of them are having good level of score. In Post-test, none of the clients are having poor level score and 23.33% of them having moderate level of score and 76.67% of them are having severe level of score. Statistically there is a significant difference between Pre-test and Post-test score.

In Control group, in Pre-test, 76.67% of the clients are having poor level score, 23.33% of them having moderate level of score and none of them are having good level of score. In Post-test, 63.33% of the clients are having poor level score and 36.67% of them having moderate

level of score and none of them are having good level of score. Statistically there is no significant difference between Pre-test and Post-test score.

***Flávia Gilda Zanetti, et al (2019)*** a cross-sectional exploratory study was carried out with 147 Diabetic patients registered in the HIPERDIA system of a Brazilian county. 63.45% of the interviewees were women, 36.55% were men-Mean age was 59.54 years; 61.60% of the total interviewees had three meals per day. Patients' Diet was the most often response about the main difficulty in the glycemic Control treatment (34.25%), 7% of the patients presented positive attitudes towards Diabetes Mellitus and 17.5% showed proper knowledge about it. Most participants presented inadequate food habit, poor knowledge about Diabetes Mellitus and its complications, as well as negative attitude towards the disease.

***Ibharim Bin Ahmed,et al (2018)*** International journal of medical research & health sciences was to assess the awareness and knowledge towards Type II Diabetes in Northern Saudi Arabia. cross sectional survey conducted for 1530 participants,59% males and 41% Were females out of 1530 participants 60.8% know nothing about DM and about 48% were know something about symptoms of DM. There are low awareness and knowledge levels toward baseline DM related information.

AlissonPadilha de Lima in (2020 Feb 03) this study was to assess the knowledge and attitude towards Type II Diabetes in Passo Fundo – Brazil. A cross-sectional population-based study was adopted on 204 older adults from the public healthcare network .The study revealed that good knowledge about DM2 is associated with age of 70 years or older, having a positive attitude towards treatment of the disease, and being physically active. In rural areas the older adult participants having

negative knowledge and attitude scores. The researcher suggested that the professionals involved should be aware of and provide the necessary information about self-care, treatment and prevention of DM2 in order to minimize health problems.

The discussion of the Post-test level of knowledge and Healthy Life Style Behaviour score and its comparison with the Pre-test knowledge and Healthy Life Style Behaviour score proves that through the Home Based Diabetic Management Programme(HBDMP) among Type II Diabetic clients was effective. So that H1 is accepted. Therefore there is a significant difference regarding pre-test and post-test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients.

### Objective-4: To Find Out the Association Between Post -test Level Of Knowledge andHealthy Life Style Behavior among Type II Diabetic Clients In Experimental Group and their Selected Demographic Variables

The present study results showed that there is a significant association between Post-test level of Knowledge score and Demographic variables among Experimental group. 40-50 years aged clients, Middle school educated clients and Healthy Life Style Habits of clients are having more adequate knowledge score than others. These factors significantly associated with the knowledge score. Statistical significance was calculated using one way analysis of variance F-test and student independent t-test.

The study concluded that there is association between post-test knowledge score is statistically significant [$p<0.05$] with their age [$\chi 2=8.26$ $p=0.05$]. It Means 40-50 years of diabetic clients had more knowledge among samples.

The study concluded that there is a association between post-test knowledge score is statistically significant [p<0.05] with their Education status [$\chi2=6.51$ p=0.05]. It Means Middle school educated clients had more  knowledge among samples.

The study concluded that there is a association between post-test knowledge score is statistically significant [p<0.05] with their Life Style Habits [$\chi2=9.60$ p=0.02]. It Means Healthy  Life Style Habits  increases the knowledge among samples.

The study concluded that there is association between post-test level of Healthy Life Style Behavior score is statistically significant [p<0.05] with their age [$\chi2=10.53$ p=0.01]. It Means 40-50 years of diabetic clients  had   among samples.

The study concluded that there is a association between post- test level of Healthy Life Style Behavior score is statistically significant [p<0.05] with their Education status [$\chi2=9.00$ p=0.01]. It Means Middle school educated clients had Healthy Life Style Behavior  among samples.

The study concluded that there is a association between post-test Healthy Life Style Behavior score is statistically significant [p<0.05] with their Life Style Habits [$\chi2=14.65$ p=0.01]. It Means good Life Style Habits increases the Healthy Life Style Behavior among samples.

***Sandul Yasobant, et al (2017)*** study was conducted as cross sectional study in Indian Institute of Public Health Gandhi agar, India.  This is a multi-centric prospective study with a phase of intervention among the Diabetic patients in three diverse districts Mehsana (Rural), Chota Udaipur (Tribal), Ahmadabad (Urban) of Gujarat, India. Knowledge and management practices found to have change followed by community based intervention. This study found that the knowledge and

practices about management of Diabetes could be changed with suitable designed community based intervention programs.

Above the discussion shows that 40-50 years of age group, Middle school educational status, healthy Life Style Habits are associated with the knowledge and healthy life style behavior

The analysis revealed that there was a significant association between post-test level of knowledge and Healthy Life Style Behavior and their selected demographic variable. Hence H2 was accepted

From the above discussion of the present study with other similar studies justifies that there is a lack of knowledge and Healthy Life Style Behavior on Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients. The education was planned through Home Based Diabetic Management Programme(HBDMP) among Type II Diabetic clients to gain adequate knowledge and Healthy Life Style Behavior then some was accomplish. The results of this study highlighted the impact of teaching strategy on Home Based Diabetic Management. Therefore the Diabetic clients to be ergonomically conscious and they can manage Diabetes.

# CHAPTER –VI
# SUMMARY,IMPLICATIONS, RECOMMENDATION, LIMITATION AND CONCLUSION

This chapter deals with the summary, implication, Recommendation, Limitation and Conclusion.

## 6.1 SUMMARY OF THE STUDY FINDINGS

The study was conducted to ascertain the Impact of Home Based Diabetic Management Programme among Type II Diabetic clients attending Primary Health Center, Chennai. It was a quantitative approach. The main objectives of the study are to assess the Impact of Home Based Diabetic Management Programme .The study was conducted at primary health center, Choolai, Chennai. 60 Type II Diabetes clients included in the study based on the inclusion criteria. Semi-structured and likert-scale questionnaire was used to determine the level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients. The pilot study was conducted in Primary Health Center,Choolai, Chennai with 10 samples. No modifications were made after pilot study.

The review of literature provided the base to construct the tools to select the methodology. The conceptual Framework of the study was based on the J.W.KENNY' OPEN SYSTEM MODEL. . Data was collected in 4 weeks from 20-01-2020 to 15-02-2020. Initially the investigator got formal permission from Medical Officer of Primary Health Center, Choolai, Chennai. Informed written consent was obtained from each sample after explaining the purpose of the study and was given assurance for keeping the information confidentially. The data was collected by using a convenient sampling technique. The knowledge and Healthy Life Style Behavior regarding Type II Diabetes mellitus was assessed by semi- structured and likert scale questionnaire. Home

Based Diabetic Management Programme regarding Type II Diabetes mellitus was given to the samples after knowledge and Healthy Life Style Behavior assessment to improve the knowledge and healthy life style behavior. Data analysis was done by using descriptive and inferential statistics.

## MAJOR FINDINGS OF THE STUDY

### 6.1.1 Findings related to Demographic Variables

**AGE:** Maximum 40% patients belongs to (56-60years) age group in Experimental group and in Control group maximum36.67% patients belongs to (56-60years) age group

**GENDER:** 40% belongs to male gender and majority 60% belongs to female gender in Experimental group and 56.67 male gender and 43.33% belongs to female gender in Control group.

**RELIGION:** Maximum 86.67% patients belongs to Hindu in Experimental group and in Control group 86.66% patients belongs to Hindu

**MARITAL STATUS:** 70% participants are married in Experimental and 83.3% married Control group

**EDUCATIONAL QUALIFICATION:** Majority 43.33 % had no formal literate in Experimental group and maximum 43.33 % had no formal literate in Control group.

**FAMILY MONTHLY INCOME:** Maximum 62.07%Familyincome is Rs.9300-14000 in Experimental group and in Control group 36.67%Familyincome is Rs.9300-14000

**LIFE STYLE HABITS:** Majority 40% having betel leaves in Experimental group and 26.67% having betel leaves in Control group

**TYPE OF FAMILY:** Maximum 50% belongs to nuclear Family in Experimental group and in Control group 50% belongs to nuclear family.

**TYPE OF DIET :** Majority 93.33% belongs to non-vegetarian in Experimental group and 96.67% belongs to non-vegetarian in Control group

**SOURCE OF INFORMATION:** Maximum 80% belongs to Experience by self ,family and relatives in Experimental group and 83.33% belongs to Experience by self ,family and relatives in Control group

### 6.1.2 Findings regarding Pre-test level of knowledge and Healthy Life Style Behavioramong Type II Diabetic clients in Experimental and Control group

In assessing Pre-test level of knowledge score in Experimental group, 63.33% of the clients are having inadequate level of knowledge score, 36.67% of them having moderate level of score and none of them are having adequate level knowledge of score. In Control group, 70.00% of the clients are having inadequate level of knowledge score, 30.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

The Pre-test level of Healthy Life Style Behavior score in Experimental group, 80.00% of the clients are having poor level of score, 20.00% of them having moderate level of score and none of them are having good level of score .In Control group, 76.67% of the clients are having poor level of score, 23.33% of them having moderate level of score and none of them are having good level of score.

### 6.1.3 Findings regarding post test level of knowledge and healthy life style behavior

The Post-test levels of knowledge score between Experimental and Control group among Type II Diabetic clients.

After Home Based Diabetic Management Programme (HBDMP), in Experimental group, none of the clients are having inadequate level of knowledge score, 23.33% of them having moderate level of score and 76.67% of them are having adequate level of score.

In Control group, 60.00% of clients are having inadequate level of knowledge score, 40.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

### 6.1.4 Findings regarding evaluate the Impact of Home Based Diabetic Management Programme among Type II Diabetic clients in Experimental group

After Home Based Diabetic Management Programme (HBDMP), in Experimental group, none of the clients are having inadequate level of knowledge score, 23.33% of them having moderate level of score and 76.67% of them are having adequate level of score.

### 6.1.5 Findings regarding compare the Pre-test and post test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients in Experimental and Control group

The study shows in Experimental group, in Pre-test, 63.33% of the clients are having inadequate level of knowledge score, 36.67% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score. In Post-test, none of the clients are having inadequate level of knowledge score, 23.33% of them having moderate level of knowledge score and 76.67% of them are having adequate level of knowledge score. Statistically there is a significant difference between Pre-test and Post-test score.

In Control group, in Pre-test, 70.00% of the clients are having inadequate level of knowledge score, 30.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score. In Post-test, 60.00% of the clients are having inadequate level of knowledge score, 40.00% of them having moderate level of knowledge score and none of them are having adequate level of knowledge score.

Regarding the level of Healthy Life Style Behavior score in Experimental group, in Pre-test, 80.00% of the clients are having poor level score and 20.00% of them having moderate level of score and none of them are having good level of score. In Post-test, none of the clients are having poor level score and 23.33% of them having moderate level of score and 76.67% of them are having severe level of score. Statistically there is a significant difference between Pre-test and Post-test score.

In Control group, in Pre-test, 76.67% of the clients are having poor level score, 23.33% of them having moderate level of score and none of them are having good level of score. In Post-test, 63.33% of the clients are having poor level score and 36.67% of them having moderate level of score and none of them are having good level of score. Statistically there is no significant difference between Pre-test and Post-test score.

### 6.1.6 Findings regarding the association between post -test level of knowledge and Healthy Life Style Behavior among Type II Diabetic clients in Experimental group and their selected demographic variables

There was significant association of knowledge with the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients and their( 40-50 years) age of clients

$[\chi^2=8.26 \ p=0.05]$

There was significant association of knowledge with the impact Home  Based Diabetic Management Programm e(HBDMP)  among Type II Diabetic  clients  and Middle school educational status

**[$\chi$2=6.51 p=0.05]**

There was significant association of knowledge with the impact Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients and their  Healthy Life Style Habits.

**[$\chi$2=9.60 p=0.02 ]**

There was significant association of Healthy Life Style Behavior with the Impact of Home Based Diabetic Management Programme (HBDMP)  among Type II Diabetic  clients  and their( 40-50 years) age of  clients

**[$\chi$2=10.53 p=0.01]**

There was significant association ofHealthy Life Style Behavior with the impact of of Home Based Diabetic Management Programme (HBDMP)  among Type II Diabetic  clients  and Middle school educational status

**[$\chi$2=9.00 p=0.01]**

There was significant association of Healthy Life Style Behavior with the impact Home Based Diabetic Management Programme(HBDMP) among Type II Diabetic clients and their Healthy Life Style Habits.

**[$\chi$2=14.65 p=0.0 ]**

## 6.2 IMPLICATIONS

The investigator has drawn the following implications from the studies which are of vital concern in the field of nursing practice, nursing education, nursing administration and nursing research.

### 6.2.1 Implications For Nursing Practice

❖ The study result will help the nursing personnel to understand the importance of Home Based Diabetic Management Programme among Type II Diabetic clients.

❖ The community health nurse can motivate the Type II Diabetic clients about home based Diabetic management

❖ The nurse can emphasize on Diet, exercise, blood sugar monitoring, regular intake of diabetic drugs, prevent the complication of Type II Diabetes Mellitus among Type II Diabetic clients.

❖ Community health nurse plays a vital role in providing healthy life style behaviour change communication in Type II Diabetic clients. Patients to adopt the home based Diabetic management appropriate measure to the Type II Diabetic clients. , improve the knowledge and Healthy Life Style Behaviour.

❖ Health education regarding the general information of Diet, exercise, blood sugar monitoring, complication, drug adherence.

### 6.2.2 Implications For Nursing Education

❖ To improve the knowledge in the community student nurses need to update with their knowledge Home Based Diabetic Management Programme

- ❖ Student nurses in the nursing colleges should be encouraged to conduct mass educational campaigns on Home Based Diabetic Management Programme

- ❖ Educative materials like hand-outs can be prepared by the nursing students to create awareness among the adults to prevent Diabetes mellitus.

### 6.2.3 Implications For Nursing Administration

- ❖ Nursing administrators should organize In service programme on knowledge and life style behaviour on Type II Diabetic clients .

- ❖ Periodic workshops, conferences, and exhibitions can be arranged by the Community Health Nurse at Community area in prevention of Type II Diabetes mellitus.

- ❖ Standard protocols on management of Type II Diabetes mellitus and imparting the update knowledge can be prepared for the health workers at primary level to impart the best knowledge to the community at door step.

### 6.2.4 Implications For Nursing Research

- ❖ Promote more research activities on prevention and management of Type II Diabetes mellitus Knowledge, attitude,practice  can be assessed applying various research designs.

- ❖ This study will be helpful to plan new interventional studies to improve the knowledge regarding management of Type II Diabetes mellitus.

- ❖ Develop different tools to manage the Type II Diabetes  mellitus

- ❖ Disseminate the research findings in journals, seminars and conferences.

❖    Different domains can be used to manage the Type II Diabetes  in different studies

## 6.3 RECOMMENDATIONS FOR FURTHER STUDY

1.    The study can be repeated on the large sample for better generalization of the findings.

2.    A descriptive study on assessing the knowledge, attitude and practice on management of Type II Diabetes mellitus can be done.

3.    The similar study can be done on one group Pre-test and Post-test research design

4.    The similar study can be done to test the effectiveness of various teaching aids in imparting knowledge on  management of Type II Diabetes mellitus

5.    The study can be repeated among the newly diagnosed patient

6.    The same study can be done as a comparative study to assess the knowledge, attitude and practice on management of Type II Diabetes mellitus between government hospital  and primary health centre

## 6.4 LIMITATIONS

❖    This study was basically conducted as community based study in Primary Health Centre

❖    The study was limited with fewer samples.

❖    Data collection is limited to four weeks.

## 6.5 CONCLUSION

The findings revealed that the Home Based Diabetic Management Programme was more effective with the adequate gain score when compared to Pre-test score further studies focusing on the practice of knowledge and Healthy Life Style Behavior among Type II Diabetic clients  regarding home based Diabetic management programme can be more useful. Enhanced knowledge and Healthy Life Style Behavior regarding Home Based Diabetic Management Programme should be used in developing highly effective in Primary Health Centre and conduct in different areas of various non-communicable disease screening clinics.

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# INSTITUTIONAL ETHICS COMMITTEE
# MADRAS MEDICAL COLLEGE, CHENNAI 600 003

EC Reg.No.ECR/270/Inst./TN/2013/RR-16
Telephone No.044 25305301
Fax: 011 25363970

## CERTIFICATE OF APPROVAL

To
**PARIMALA R**
M.Sc (N) I Year
College of Nursing
Madras Medical College
Chennai-600003.

Dear PARIMALA R,

       The Institutional Ethics Committee has considered your request and approved your study titled **"IMPACT OF HOME BASED DIABETIC MANAGEMENT PROGRAMME (HBDMP) AMONG TYPE II DIABETIC CLIENTS AT URBAN PRIMARY HEALTH CENTRE, CHENNAI"-NO.25112019.** The following members of Ethics Committee were present in the meeting held on **12.11.2019** conducted at Madras Medical College, Chennai 3.

1. Prof.P.V.Jayashankar                              :Chairperson
2. Prof.R.Jayanthi,MD.,FRCP(Glasg)., Dean,MMC,Ch-3     :DeputyChairperson
3. Prof.N.Gopalakrishnan,MD.,DM.,FRCP, Vice Principal Director,Inst.of
                           Nephrology,MMC,Ch : Member Secretary
4. Prof.Bharathi Vidya Jayanthi,Vice Principal Director,Inst. of Pathology,MMC,Ch-
                                                   : Member
5. Prof.R.Muthuselvan,MD,Prof. Inst. of Int.Med,MMC, Ch-3     : Member
6. Prof.Alli, Prof. Inst. of Gen.Surgery,MMC               : Member
7. Prof.Shobha, Prof, Inst.of O&G, Chennai               : Member
8. Prof.Rema Chandramohan,Prof.of Paediatrics,ICH,Chennai     : Member
9. Prof. Sudha, Prof. Inst. of Pharmacology,MMC,Ch-3        : Member
10. Prof.K.Ramadevi,MD., Director, Inst. of Bio-Chemistry,MMC,Ch-3   : Member
11. Prof. S.Lakshmi, Prof. of Paediatrics ICH Chennai          : Member
12. Thiru S.Govindasamy, BA.,BL,High Court,Chennai          : Lawyer
13. Tmt.Arnold Saulina, MA.,MSW.,                  :Social Scientist
14. Thiru K.Ranjith, Ch- 91                        : Lay Person

       We approve the proposal to be conducted in its presented form.
       The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

Member Secretary – Ethics Committee

## INFORMED CONSENT

**Investigator :Mrs. Parimala. R**

**Name of Participant:**

**Age/sex** **:**

**Date** **:**

**Name of the Institution: College of Nursing, Chennai.**

**Title : "Impact of home based diabetic management programme( HBDMP) among type II diabetic clients at Urban Primary Health Centre , Chennai."**

**Documentation of the informed consent:** (legal representative can sign if the participant is minor or competent).

- I _____ have read/it has been read for me, the information in this form. I was free to ask any questions and they have been answered. I am an adolescent and exercising my free power of choice, hereby give my consent to be included as a participant in the study.
- I have read and understood this consent form and the information provided to me.
- I have had the consent document explained in detail to me.
- I have been explained about the nature of my study.
- My rights and responsibilities have been explained to me by the investigator.
- I agree to cooperate with the investigator
- I have not participated in any research study at any time.
- I am aware of the fact that I can opt out of the study at any time without having to give any reason
- I hereby give permission to the investigators to release the information obtained from me as a result of participation in this study to the regulatory authorities, government agencies and Institutional Ethics Committee. I understand that they are publicly presented.
- My identity will be kept confidential if my data are publicly presented.
- I am aware that I have any question during this study; I should contact the concerned investigator.

Signature of Investigator                    Signature of Participants
Date

# INFORMATION TO PARTICIPANTS

**Title**                                   :"Impact of home based diabetic management programme( HBDMP )  among type II diabetic clients at Urban Primary  centre, Chennai."

**Name of the Participant**  :

**Date**                              :

**Age/sex**                         :

**Investigator**                  : Mrs. Parimala. R

**Name of the institution**   : College of Nursing, MMC, Chennai.

**Enrolment No**                 :

You are invited to take part in this study. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have any queries or concerns.

You are being asked to co-operate in this study being conducted at Urban Primary Health Centre ,Chennai.

**What is the Purpose of the Research (explain briefly)**

This research is conducted to assess the impact of home based diabetic management programme among type II diabetic clients at   Urban Primary Health Centre,  Chennai.

**Study Procedures**

- Study will be conducted after approval of ethics committee
- A written formal permission will be obtained from authorities of College of Nursing, Madras Medical College, Chennai-3 to conduct study.
- The purpose of study will be explained to the participants.
- The investigator will obtain informed consent.
- The investigator will assess the job satisfaction and burn out of each participant before the procedure using a standardized scale.
- It will be taught by the investigator daily.

- The home based diabetic management programmewill be explained to type II diabetic clients with the help of lecture.

- Following that the level of knowledge will be assessed by posttest.

**Possible benefits to other people**

The result of the research may provide benefits to the clients with type II diabetes mellitus and also empathetic care to them by investigator.

**Confidentiality of the information obtained from you**

You have the right to confidentiality regarding the privacy of your personal details. The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

**How will your decision not to participate in the study affect you?**

Your decisions not to participate in this research study will not affect your activity of daily living, medical care or your relationship with investigator or the institution.

**Can you decide to stop participating in the study once you start?**

The participation in this research is purely voluntary and you have the right to withdraw from this study at any time during course of the study without giving any reasons.

Your privacy in the research will be maintained throughout the study. In the event of any publications or presentation resulting from the research, no personally identifiable information will be shared.

Signature of Investigator                    Signature of Participants

Date                                         Date

# சுய ஒப்புதல் படிவம்

**ஆராய்ச்சி தலைப்பு** :இரண்டாவது வகை நீரிழிவு நோயாளிகளுக்கு இருப்பிடம் சார்ந்த நீரிழிவு நோய் பராமரிப்பு செயல் நிரல் தருவதால் ஏற்படக்கூடிய விளைவு பற்றிய ஆய்வு

**ஆய்வாளர் பெயர்** : பரிமளாஇரா .

**பங்கேற்பாளர் பெயர்** :

**தேதி** :

**வயது/பால்** :

- ஆய்வாளர்கள் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழு மனதுடனும் சுயநினைவுடன் சம்மதிக்கிறேன்.
- ஆய்வாளர்மேற்கொள்ப்போகும் பரிசோதனைகளை மிக தெளிவாக விளக்கிக்கூறினார்..
- எனக்குவிருப்பம்மில்லாத பட்சத்தில் ஆராய்ச்சியிலிருந்து எந்நேரமும் விலகலாம்என்பதையும் ஆய்வாளர் மூலம் அறிந்து கொண்டேன்.
- இந்த ஆராய்ச்சி ஒப்புதல் கடிதத்தில் உள்ள விவரங்களை நன்கு புரிந்து கொண்டேன். எனது உரிமைகள் மற்றும் கடமைகள் ஆராய்ச்சியாளர் மூலம் விளக்கப் பட்டது.
- நான் ஆராய்ச்சியாளருடன் ஒத்துழைக்க சம்மதிக்கிறேன் எனக்கு ஏதேனும் உடல்நலகுறைவு ஏற்பட்டால் ஆராய்ச்சியாளர் இடம் தெரிவிப்பேன்.
- நான்வேறுஎந்தஆராய்ச்சியிலும்தற்சமயம்இடம்பெறவில்லைஎன்பதைதெரிவித்துக்கொள்கிறேன்.
- இந்த ஆராய்ச்சியின் தகவல்களை வெளியிட சம்மதிக்கிறேன். அப்படி வெளியிடும் போது என் அடையாளம் வெளிவராது என்பதை அறிவேன்.
- எனக்கு இந்த ஒப்புதல் கடிதத்தின் நகல் கொடுக்கப்பட்டது.


ஆய்வாளர் கையொப்பம்                    பங்கேற்பாளர் கையொப்பம்
தேதி :                                   தேதி :

# ஆராய்ச்சி தகவல் தாள்

**ஆராய்ச்சி தலைப்பு:**இரண்டாவது வகை நீரிழிவு நோயாளிகளுக்கு இருப்பிடம் சார்ந்த நீரிழிவு நோய் பராமரிப்பு செயல் நிரல் தருவதால் ஏற்படக்கூடிய விளைவு பற்றிய ஆய்வு

**ஆய்வாளர் பெயர்** :        பரிமளா இரா .        **தேதி :**

**பங்கேற்பாளர் பெயர் :**

**வயது/பால் :**

- ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடன் சம்மதிக்கலாம்.

- இதில் பங்கேற்பதன் நோக்கம்: இரண்டாவது வகை நீரிழிவு நோயாளிகளுக்கு இருப்பிடம் சார்ந்த நீரிழிவு நோய் பராமரிப்பு செயல் நிரல் தருவதால் ஏற்படக்கூடிய விளைவுபற்றி அறிதல்.

- இந்த ஆராய்ச்சியின் நோக்கம்: இரண்டாவது வகை நீரிழிவு நோயாளிகளுக்கு இருப்பிடம் சார்ந்த நீரிழிவு நோய் பராமரிப்பு செயல் நிரல் தருவதால் ஏற்படக்கூடிய விளைவு பற்றிய ஆய்வு.

- ஆராய்ச்சி மேற்கொள்ளும் முறை: இரண்டாவது வகை நீரிழிவு நோயாளிகளுக்கு இருப்பிடம் சார்ந்த நீரிழிவு நோய் பராமரிப்பு செயல் நிரல் தருவதால் ஏற்படக்கூடிய விளைவு பற்றி அறிதல்.

- இதனால் ஆய்வாளருக்கான பயன்: இந்த ஆய்விற்குப்பின் இரண்டாவது வகை நீரிழிவு நோயாளிகளுக்கு இருப்பிடம் சார்ந்த நீரிழிவு நோய் பராமரிப்பு செயல் நிரல் தருவதால் ஏற்படக்கூடிய விளைவு பற்றி அறிதல்.

- இதனால் பங்கேற்பாளருக்கான பயன்: இரண்டாவது வகை நீரிழிவு நோயாளிகளுக்கு இருப்பிடம் சார்ந்த நீரிழிவு நோய் பராமரிப்பு முறை அறிதல் .

- ஆராய்ச்சியில் பங்கேற்கவில்லை என்றாலும் உங்களின் சராசரி வாழ்க்கை முறையில் எந்தவித மாற்றமும் ஏற்படாது என்பதை தெரிவிக்கின்றேன்.

- இந்த ஆராய்ச்சியில் பங்கேற்க விருப்பம் இல்லை என்றால் உங்களின் முழு மனதுடன் நீங்கள் இந்த ஆராய்ச்சியில் இருந்து விலகிக் கொள்ளலாம் என்பதை தெரிவிக்கின்றேன்.

- இந்த ஆராய்ச்சியில் உங்களின் தகவல்களை பாதுகாப்பாக வைத்து கொள்கிறேன் என்பதை தெரிவிக்கின்றேன்.

- இந்த ஆராய்ச்சியின் தகவல்களை வெளியிடும் போது உங்களை பற்றி அடையாளங்கள் வெளிவராது என்று உறுதி கூறுகிறேன்.


ஆய்வாளர் கையொப்பம்                     பங்கேற்பாளர் கையொப்பம்
தேதி :                                   தேதி :

# CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool submitted by Parimala.R, M.Sc Nursing II year student, College of Nursing, Madras Medical College which is to be used in her study titled, **"A study to assess the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients at Urban Primary Health Centre , Chennai"** has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

Signature with seal

S. KANCHANA M.Sc.,(N)
Associate Professor
MADHA COLLEGE OF NURSING
KUNDRATHU, CHENNAI-600 069.

Name: MRS- KANCHANA.S

Designation: ASSOCIATE PROFESSOR

College: MADHA COLLEGE of NURSING
KUNDRATHUR, CHENNAI-69

Place: CHENNAI

Date: 23/12/19

# CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool submitted by  Parimala.R, M.Sc Nursing  II year student, College of  Nursing, Madras Medical College  which is to be used in her study titled, **"A study to assess   the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients at Urban Primary Health Centre , Chennai"** has been validated by the undersigned.  The suggestions and modifications given by me will   be incorporated by the investigator in concern with their respective guide.  Then she can proceed to do the research.

Signature with seal

PROFESSOR
Institute of Community Medicine
Madras Medical College
Chennai-600 003.

Name:  Dr. JOY PATRICIA PUSHPARANI

Designation:  Professor of Community Medicine

College:  Madras Medical College, Chennai

Place:

Date:

## REQUISITION LETTER

From,

Parimala.R,

M.Sc(N) I Year,

College of Nursing,

Madras medical college,

Chennai-03.

TO,

The medical officer,

Urban primary health centre,

Choolai,

Chennai.

Through,

Principal,

College of nursing,

Madras medical college,

Chennai-03

Respected madam/ sir,

Sub: College of nursing, Madras Medical College, M.sc(N) I year ,permission requested for doing dissertation in Urban Primary Health Centre , Chennai-Reg.

I request you to kindly grant me permission to undergo the study on " TO ASSESS THE IMPACT OF HOME BASED DIABETIC MANAGEMENT PROGRAMME (HBDMP) AMONG TYPE II DIABETIC CLIENTS AT SELECTED URBAN PRIMARY HEALTH CENTRE , CHENNAI, as a part of our requirement to be completed for The TamilNadu Dr.M.G.R. Medical University.

Thanking you

Yours sincerely,

(PARIMALA.R)
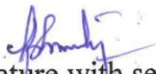
PRINCIPAL
COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE
CHENNAI - 600 03

Encl : copy of Institutional Ethics Committee Approval Letter

Dr. S. DEVIKALA, M.B.B.S.,F.C.D.,
Regd. No: 82075
MEDICAL OFFICER
CORPORATION OF CHENNAI

# CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool submitted by  Parimala.R, M.Sc Nursing  II year student, College of  Nursing, Madras Medical College  which is to be used in her study  titled,  **"A study  to  assess   the Impact of Home Based Diabetic Management Programme (HBDMP) among Type II Diabetic clients at Urban Primary Health Centre , Chennai"** has been validated by the undersigned.  The suggestions and  modifications  given  by  me  will    be  incorporated  by  the investigator in concern with their respective guide.  Then she can proceed to do the research.

Signature with seal

Name: Barumathi.k.

Designation: Asst. prof

College: Apollo college of Nursing.

Place: Chennai-95

Date: 23/12/19.

From,
Addl. City Medical Officer(i/c)
Medical Services Department
Greater Chennai Corporation,
Ripon Buildings
Chennai- 3

To
R. Parimala
M.Sc (N) 1st year, student
College of Nursing
Madras Medical College
Chennai-03.

------------------------------------------------------------------------------------------------

M.S.D/Trg/F20/ 2377 /2019                          Date : 22.11.2019

Madam,

**Sub :**  Greater Chennai Corporation - Medical Services Dept – Training - Permission to conduct a research study by R. Parimala, M.Sc Nursing 1$^{st}$ year student, College of Nursing, Madras Medical College  among the patients attending Choolai UPHC and  in the field belonging to Choolai UPHC from January 2020  to February 2020 - Orders issued – Regarding.

**Ref:**  1.Orders of the Deputy Commissioner (Health), Dated: 21.11.2019
\*\*\*\*\*

As per the Orders of the Deputy Commissioner (Health), permission is accorded to conduct a research study to "Assess the Impact of Home Based Diabetic Management Programme (HBDMP) Among Type II Diabetic Clients" by R. Parimala M.Sc Nursing 1$^{st}$ year student, College of Nursing, Madras Medical College among the patients attending Choolai UPHC and  in the field belonging to Choolai UPHC from January 2020  to February 2020 with the following

**Terms and conditions:-**

- Consent form should be obtained from the study participant after giving the information sheet
- Progress of data collection should be appraised at each stage.
- The study should not be detrimental to the normal functioning of the Institution.
- The Greater Chennai Corporation will not provide any monetary or human resource support  for this study.
- The data should be kept confidential and the report should not be published or shared with any Institution / person / press without the permission and approval of the Commissioner, Greater Chennai Corporation.
- The views of the department should be obtained before finalizing the report for submission.
- The data should be used for the Project work only.
- Study report should be submitted to the Deputy Commissioner (Health) and City Medical Officer, Medical Services  Department Greater Chennai Corporation.  If not submitted it will be addressed to the University authorities for necessary action.
- If there is any deviation, action will be taken against the individual.

R. Parimala, M.Sc Nursing 1$^{st}$ year student, College of Nursing, Madras Medical College is instructed to contact  the  Zonal Medical Officer of Thiru vi ka Zone for necessary arrangements.

**Address & Contact Person:**

**Pulianthope UCHC**: No.40,Thiruvengadasamy street,Pulianthope,Chennai-12.
ZMO- Dr. Baby Ramona - 9445190716
MCHO  - Mrs. Mary Salomy Preethi – 9094924981
MCHO - Mrs. A.S Nagalakshmi -9444442087

Addl. City Medical Officer / JD (i/c)
Joint Director
Medical Services Department
Greater Chennai Corporation

City Medical Officer (i/c)
Medical Services Department
Greater Chennai Corporation

# CERTIFICATE FOR TAMIL EDITING

This is to certify that the dissertation work topic titled, "**A study to assess the impact of home based diabetic management programme (HBDMP) among type II diabetic clients at Urban Primary Health Centre,** done by Parimala.R, M.Sc(N) II year student, College of Nursing, Madras Medical College, Chennai-03 has been edited and validated for Tamil language appropriateness.

Place :

Date :

Signature :

எம். சரசு, எம்.ஏ..எம்.எட்.,
முதுNameபட்டதாரி ஆசிரியை (தமிழ்)
அரசினர் மேல்நிலைப் பள்ளி,
Designationஒகளப்பேட்(வே.மா.) 635 602.

Place      :

# CERTIFICATE FOR ENGLISH EDITING

This is to certify that the dissertation work topic titled, " **A study to assess the impact of home based diabetic management programme (HBDMP) among type II diabetic clients at Urban Primary Health Centre,** done by Parimala.R, M.Sc(N) II year student, College of Nursing, Madras Medical College, Chennai-03 has been edited and validated for English language appropriateness.

Place :

Date :

Signature : T. Jothi Lakh

**T. JOTHILAKSHMI**, M.A.,B.Ed.,
B.T.Asst. (English)
Govt. Hr. Sec. School,
Korattu, (Vir. Dt.) 635 602.

Name

Designation :

Place        :

"A STUDY TO ASSESS THE IMPACT OF HOME BASED DIABETIC MANAGEMENT PROGRAMME (HBDMP) AMONG TYPE II DIABETIC CLIENTS AT URBAN PRIMARY HEALTH CENTRE, CHENNAI".

## Research Tool – structured questionnaire

## Section-A: Demographic data

**1)   Age in Years**

a)  40-45 ☐

b)  46-50 ☐

c)  51-55 ☐

d)  56-60 ☐

**2)   Gender**

a)  Male ☐

b)  Female ☐

c)  Transgender ☐

**3)   Religion**

a)  Hindu ☐

b)  Christian ☐

c)  Muslim ☐

d)  Others ☐

**4)   Marital Status**

a)  Unmarried

b)  Married ☐

c)  Widow/widower ☐

d)  separated ☐

**5)   Educational status**

a)  No Formal  literate ☐

b)  Primary education;; ☐

c)  Middle School ☐

d)  Higher Secondary School ☐

e) Graduate and above ☐

**6) MonthIy ncome**
a) <Rs.5600/ ☐
b) Rs.5600/- to Rs.9300/- ☐
c) Rs.9300/- to Rs.14000/- ☐
d) Rs.14000/- to Rs.19000/- ☐
e) >Rs.19000/- ☐

**7) Life style Habits**
a) Smoking ☐
b) Alcoholism ☐
c) Betel Leaves ☐
d) None of the above ☐

**8) Type of Family**
a) Single ☐
b) Nuclear Family ☐
c) Joint Family
d) Extended Family ☐

**9) Type of Diet**
a) Vegetarian ☐
b) Non-Vegetarian – Occasional / Frequent ☐

**10) Source of information related to Diabetes Mellitus**
a) Profession ☐
b) Experience by self, family, relatives. ☐
c) News paper, journal. ☐
d) Others –specify ☐

## SECTION-B
## KNOWLEDGE QUESTIONNAIRE ABOUT TYPE-II DIABETES MELLITUS

1) **What is the character of Diabetes Mellitus Disorder**
   - a)  Increased Blood Sugar level ☐
   - b)  Decreased Blood Sugar level ☐
   - c)  Increased Protein level in Blood ☐
   - d)  Dont know ☐

2) **What is the signs and symptoms of diabetes mellitus**
   - a)  Polyuria, Polypegia, Polydispsia ☐
   - b)  Oliguria ☐
   - c)  Vomiting ☐
   - d)  Dont know ☐

3) **Which organ is responsible for Diabetes mellitus**
   - a)  Pancreas ☐
   - b)  Liver ☐
   - c)  Kidney ☐
   - d)  Dont know ☐

4) **Which hormone defect responsible for  diabetes mellitus**
   - a)  Insulin ☐
   - b)  Thyroxin ☐
   - c)  Estrogen ☐
   - d)  Dont know ☐

5) **What is the normal fasting blood sugar level?**
   - a)100 - 125 mg/dl ☐
   - b)126-140 mg/dl ☐
   - c)141-156 mg/dl ☐
   - d)Don't know ☐

6) **What are the types of diabetes mellitus**
   a) Type-I Diabetes ☐
   b) Type-II Diabetes ☐
   c) Diabetes Insipitus ☐
   d) Don't know ☐

7 ) **Howblood glucose level is controlled**
   a) Regular drugs ☐
   b) Avoid Smoking ☐
   c) Avoid Alcohol ☐
   d) Don't know ☐

8 ) **What is the recommended physical activity for Type-II Diabetes**
   a) One Hour ☐
   b) 15 Minutes ☐
   c) 30 Minutes ☐
   d) Don't know ☐

9 ) **What are the complications for Type-II Diabetes**
   a) Nerve problem ☐
   b) Kidney problem ☐
   c) Eye prblem ☐
   d) All of the above ☐

10) **What are all the Risk factors to develop diabetes mellitus**
   a) Obesity ☐
   b) Alcohol ☐
   c) Smoking ☐
   d) Dont know ☐

# Section-C
## Home Based Diabetic Management programme

## Healthy Life Style Behaviour Questionnaire

| S. No. | Items | Score | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| **EXERCISE** | | | | |
| 1. | Do Exercise Daily | Never | Sometimes | Regularly |
| 2. | How long do you exercise daily | Never | Less than 30 Minutes | More than 30 Minutes |
| 3. | Have you got enough leisure time | Never | Sometimes | Often |
| 4. | How often do you check your weight | Never | Once in 3 Months | Often |
| **DIET** | | | | |
| 5. | Are you following a diabetic meal plan as advised by your doctor | Never | Sometimes | Daily |
| 6. | Do you skip meals | Never | Once in a while | Often |
| 7. | How often you take rich dietary fibre | Never | Sometimes | Often |
| 8. | How often do you use rice in your meals | Never | Once in a day | Twice in a day |
| **BLOOD GLUCOSE MONITORING** | | | | |
| 9. | How often do you check your blood glucose | Weekly | Every month | 3 months once |
| 10. | Are you awareness about self-monitoring systems available | Not Known | Know | Very well Know |
| 11. | Are you do self monitoring system | never | Sometimes | occassionally |

| S. No. | Items | Score | | |
|---|---|---|---|---|
| | | **1** | **2** | **3** |
| **COMPLICATIONS** | | | | |
| 12. | Are you take foot care | Never | Sometimes | Occasionally |
| 13. | Are you cut the nails in round shape | never | sometimes | occassionally |
| 14. | Are you aware to keep the skin moist and soft | never | sometimes | occassionally |
| 15. | Are you wash foot with warm water | never | sometimes | occasionally |
| 16. | Have you check eye every year | Never | Sometimes | Occasionally |
| 17. | Are you experience hypoglycemia | Never | Sometimes | Occasionally |
| 18 | Are you know what to do when your sugar level level is low | Not known | know | Very well know |
| **DRUG ADHERENCE** | | | | |
| 19 | Are you stop medications | Never | Sometimes | Often |
| 20 | Are you aware about sideeffects of diabetic drug | known | Not know | Very well know |

## சமூக மக்கள் தொகை மாறிகள்

1)   வயது வருடங்களில்

    அ)   40-45 ☐

    ஆ)   46-50 ☐

    இ)   51-55 ☐

    ஈ)   56-60 ☐

2)   பாலினம்

    அ)   ஆண் ☐

    ஆ)   பெண் ☐

    இ)   திருநங்கை ☐

3)   மதம்

    அ)   இந்து ☐

    ஆ)   கிறிஸ்துவர் ☐

    இ)   முஸ்லிம் ☐

    ஈ)   மற்றவை ☐

4)   திருமண தகுதி

    அ)   மணமாகாதவர் ☐

    ஆ)   மணமானவர் ☐

    இ)   விதவை/ மனைவியை இழந்தவர் ☐

    ஈ)   தனித்து இருப்பவர் ☐

5)   கல்வி

    அ)   முறைசாரா கல்வி ☐

    ஆ)   ஆரம்பப் பள்ளி ☐

    இ)   நடுநிலைப் பள்ளி ☐

    ஈ)   உயர்நிலைப் பள்ளி ☐

    உ)   பட்டப்படிப்பு மற்றும் அதற்கு மேல் ☐

6) மாத வருமானம்

   அ) ரூ.5600/- க்கும் குறைவாக ☐

   ஆ) ரூ.5600/- முதல் ரூ.9300/- வரை ☐

   இ) ரூ.9300/- முதல் ரூ.14000/- வரை ☐

   ஈ) ரூ.14000/- க்கும் மேல் ☐

7) வாழ்க்கை முறை பழக்கம்

   அ) புகைப் பிடித்தல் ☐

   ஆ) மது அருந்துதல் ☐

   இ) வெற்றிலை போடுதல் ☐

   ஈ) மற்றவை ☐

8) குடும்பத்தின் தன்மை

   அ) கூட்டுக் குடும்பம் ☐

   ஆ) சிறு குடும்பம் ☐

   இ) அப்பாவை சார்ந்த குடும்பம் ☐

   ஈ) அம்மாவை சார்ந்த குடும்பம் ☐

9) உணவுப் பழக்கம்

   அ) சைவ உணவு ☐

   ஆ) அசைவ உணவு– எப்போதாவது/ அடிக்கடி ☐

10) நீரிழிவு நோய் பற்றிய விவரங்களின் ஆதாரம்

   அ) உத்தியோகத்தில் இருப்பவர் மூலமாக ☐

   ஆ) சுய அனுபவம், குடும்பத்தார், உறவினர் மூலமாக ☐

   இ) செய்தித்தாள், பத்திரிகை ☐

   ஈ) மற்றை–குறிப்பாக ☐

# நீரிழிவு பற்றிய அறிவு சார்ந்த கேள்விகள்

1) நீரிழிவு நோய் என்பது இரத்தத்தில் எதன் அளவு அதிகமாக இருக்கும்

    அ)    சர்க்கரையின் அளவு அதிகமாக இருத்தல் ☐

    ஆ)    சர்க்கரையின் அளவு குறைவாக இருத்தல் ☐

    இ)    புரதச்சத்தின் அளவு அதிகமாக இருத்தல் ☐

    ஈ)    தெரியவில்லை ☐

2) நீரிழிவு நோயின் அறிகுறிகள்

    அ)    அதிக தாகம், அதிகப்படியான பசி, அடிக்கடி சிறுநீர் கழித்தல் ☐

    ஆ)    சிறுநீரின் அளவு குறைதல் ☐

    இ)    வாந்தி ☐

    ஈ)    தெரியவில்லை ☐

3) நீரிழிவு நோய்க்கு காரணமான உறுப்பு

    அ)    கணையம் ☐

    ஆ)    கல்லீரல் ☐

    இ)    சிறுநீரகம் ☐

    ஈ)    தெரியவில்லை ☐

4) நீரிழிவு நோய்க்கு காரணமான ஹார்மோன் குறைபாடு

    அ)    இன்சுலின் ☐

    ஆ)    தைராக்சின் ☐

    இ)    ஈஸ்ட்ரோஜென் ☐

    ஈ)    தெரியவில்லை ☐

5) சாப்பிடுவதற்கு முன்பு இரத்த சர்க்கரையின் சரியான அளவு?

    அ)    100-125 மி.கி/டெசி.லி ☐

    ஆ)    126-140 மி.கி/ டெசி.லி ☐

    இ)    141-156 மி.கி/ டெசி.லி ☐

    ஈ)    தெரியவில்லை ☐

6) நீரிழிவு நோயின் வகைகள்

    அ) நீரிழிவு நோய் முதல் வகை ☐

    ஆ) நீரிழிவு நோய் இரண்டாம் வகை ☐

    இ) நிரிழஇவு இன்சிபிடஸ் ☐

    ஈ) தெரியவில்லை ☐

7) இரத்தத்தில் சர்க்கரையின் அளவை கட்டுப்படுத்துவது

    அ) முறையான மருந்துகள் ☐

    ஆ) புகைப்பிடித்தலை தவிர்த்தல் ☐

    இ) மது அருந்துதலை தவிர்த்தல் ☐

    ஈ) தெரியவில்லை ☐

8) நிரிழிவு நோய்க்கு பரிந்துரைக்கப்பட்ட உடற்பியிற்சி கால அளவு (ஒரு நாளைக்கு)

    அ) ஒரு மணி நேரம் ☐

    ஆ) 15 நிமிடங்கள் ☐

    இ) 30 நிமிடங்கள் ☐

    ஈ) தெரியவில்லை ☐

9) நீரிழிவு நோயினால் வரக்கூடிய சிக்கல்கள்

    அ) நரம்புக் கோளாறு ☐

    ஆ) சிறுநீரகக் கோளாறு ☐

    இ) கண் கோளாறு ☐

    ஈ) தெரியவில்லை ☐

10) நீரிழிவு நோய் வருவதற்கான ஆபத்து காரணிகள்

    அ) உடல் பருமன் ☐

    ஆ) இதய நோய் ☐

    இ) மூட்டு வலி ☐

    ஈ) தெரியவில்லை ☐

## பகுதி-இ
## வீட்டு அடிப்படையான நீரிழிவு நோய் பராமரிப்பு ஆரோக்கிய வாழ்க்கை முறை

| எண். | உருப்படி | மதிப்பெண் | | |
|------|----------|-----------|---|---|
| | | 1 | 2 | 3 |
| உடற்பயிற்சி | | | | |
| 1. | தினமும் உடற்பயிற்சி செய்வீர்களா | எப்போதும் இல்லை | எப்போதாவது | வழக்கமாக |
| 2. | தினமும் எவ்வளவு நேரம் உடற்பயிற்சி செய்வீர்கள் | எப்போதும் இல்லை | 30 நிமி. குறைவாக | 30 நிமி. மேல் |
| 3. | நீங்கள் ஓய்வு எடுக்க போதுமான நேரம் கிடைக்கிறதா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 4. | எப்போதாவது உங்கள் உடல் எடையை பரிசோதித்து கொள்கிறீர்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| உணவு | | | | |
| 5. | உங்கள் மருத்துவரின் ஆலோசனைப்படி உணவு முறையை மற்கொள்கிறார்களா | எப்போதும் இல்லை | எப்போதாவது | வழக்கமாக |
| 6. | உணவு உண்பதை தவிர்த்து இருக்கிறீர்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 7. | நார்ச்சத்து நிறைந்த உணவை எடுத்துக் கொள்கிறீர்களா | எப்போதும் இல்லை | எப்போதாவது | வழக்கமாக |
| 8. | உங்கள் உணவில் சாதத்தை எத்தனை முறை உண்பீர்கள் | எப்போதும் இல்லை | 1 நாளைக்கு 1 வேளை | 1 நாளைக்கு 2 வேளை |

| எண். | உருப்படி | மதிப்பெண் | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| **இரத்தச் சர்க்கரை கண்காணிப்பு** | | | | |
| 9. | எப்போதெல்லாம் உங்கள் சர்க்கரை அளவை பரிசோதிப்பீர்கள் | வாரம் 1முறை | ஒவ்வொரு மாதமும் | 3 மாதத்திற்கு ஒருமுறை |
| 10. | இரத்த சர்க்கரையின் சுய கண்காணிப்பு பற்றிய விழிப்புணர்வு உண்டா | தெரியாது | தெரியும் | நன்கு தெரியும் |
| 11. | சுய கண்காணிப்பு முறையை செயல்படுத்தி இருக்கிறீர்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| **சிக்கல்கள்** | | | | |
| 12. | உங்கள் பாதங்களை பராமரித்திருக்கிறார்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 13. | உங்கள் நகங்களை வட்ட வடிவில் வெட்டுவீர்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 14. | உங்கள் பாதங்களை மிருதுவாகவும் ஈரமாகவும்ம் வைக்க வேண்டுமென உங்களுக்கு தெரியுமா | தெரியாது | தெரியும் | நன்கு தெரியும் |
| 15. | உங்கள் பாதங்களை மிதமான சுடுநீரில் கழுவீர்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 16. | ஒவ்வொரு வருடமும் கண்களை பரிசோதனை செய்வது உண்டா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 17. | இரத்தத்தில் சர்க்கரையின் அளவு குறைவதை உணர்ந்திருக்கிறீர்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 18. | இரத்தத்தில் சர்க்கரையின் | தெரியாது | தெரியும் | நன்கு |

| எண். | உருப்படி | மதிப்பெண் | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| | அளவு குறையும்போது என்ன செய்ய வேண்டும் என உங்களுக்கு தெரியுமா | | | தெரியும் |
| மருந்துகளை பின்பற்றுதல் | | | | |
| 19. | நீரிழிவு நோய்க்கான மருந்துகளை எடுத்துக்கொள்வதை நிறுத்தி இருக்கிறீர்களா | எப்போதும் இல்லை | எப்போதாவது | அடிக்கடி |
| 20. | மருந்துகளினால் ஏற்படும் பக்க விளைவுகள் பற்றி வழிப்புணர்வு உள்ளதா | தெரியாது | தெரியும் | நன்கு தெரியும் |

<u>**Teaching Plan on**</u>

# HOME BASED DIABETIC MANAGEMENT PROGRAMME (HBDMP)

# AMONG TYPE II DIABETIC CLIENTS

**Submitted by**
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**College of Nursing,**

**Madras Medical College,**
**Chennai-600 003.**

**CENTRAL OBJECTIVES:**

At the end of this session the client will be able to acquire adequate knowledge and healthy life style practice regarding Home Based Diabetic Management Programme and to develop skill and practice about Type-II Diabetes Mellitus management during their life span.

**CONTRIBUTORY OBJECTIVES:**

At the end of the session, the clients will be able to

- define and general information about Diabetes Mellitus

- describe clinical manifestations and causes of Diabetes Mellitus

- list out the Risk factors of Diabetes Mellitus

- enlist the foods to be taken and avoided by Diabetes patients

- enumerate one day menu plan for Diabetes Patients

- explain the list style modifications for Diabetes Mellitus

- establish the complications for Diabetes Mellitus

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| 1. | 5 min | define and general information about Diabetes Mellitus | **DIABETES MELLITUS**<br><br>**Definition**<br><br>  o  Diabetes Mellitus is a group of Metabolic Disease characterized by increased levels of glucose in the blood hyperglycemia resulting from defects in insulin secretion, insulin action on both.<br><br>    − K.Park, 2017<br><br>**General Information about Diabetes Mellitus**<br><br>❖ The pancreas produces little insulin or no insulin at all. Insulin is a naturally occurring hormone, | Explaining | booklet | Listening | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| | | | produced by the beta cells of the pancreas which helps the body use sugar for energy. | | | | |
| | | | ❖ Our body is made up of millions of cells. | | | | |
| | | | ❖ To make energy, the cells need food in very simple form. | | | | |
| | | | ❖ When eat or drink, much of food is broken down into a simple cell called glucose. | | | | |
| | | | ❖ Glucose provides the energy to body needs for daily activities. | | | | |
| | | | ❖ The blood vessels and blood are the highways that transport sugar from where it is either taken in the stomach or manufactured in the liver to the cells where it is used | | | | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| | | | (muscles) or where it is stored (fat) sugar cannot go into cells by itself. The pancreas reveals insulin into the blood which serves as the helps or the 'Key' that let sugar into the cells for use as energy.<br><br>❖ When sugar leaves the blood stream and enters the cells, the blood sugar level is lowered. Without insulin or the 'Key' sugar cannot get into the body's cells for use as energy. This causes sugar to rise.<br><br>❖ Too much sugar in the blood is called "Hyperglycemia". | | | | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| 2 | 2 min | describe the signs and symptoms and causes of diabetes mellitus | **CLINICAL MANIFESTATIONS OF DIABETES MELLITUS**<br><br>• Excessive thirst<br><br>• Need to urinate often<br><br>• Abnormal great thirst<br><br>• Weight loss<br><br>• Fatigue<br><br>• Weakness<br><br>• ketoacidosis | Explaining | Pamphlet | Listening | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| 3. | 4minutes | list out the Risk factors of Diabetes Mellitus | **RISK FACTORS FOR DIABETES MELLITUS:**<br><br>❖ Family history of diabetes mellitus<br><br>❖ Obesity<br><br>❖ Race/ ethnicity<br><br>❖ Age > 45 years<br><br>❖ Hypertension<br><br>❖ History of gestational diabetes mellitus | Explaining | Pamphlet | Listening | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| 4 | 7 min | enlist the foods to be taken and avoided by Diabetes Patients | **FOODS TO BE TAKEN BY DIABETES PATIENTS**<br><br>• Beans<br>• Curry leaves<br>• Cabbages<br>• Capsicum<br>• Drumstick<br>• Cluster Beans<br>• Bitter gourd<br>• Onion<br>• Cucumber<br>• Carrot<br>• Bottle Gourd<br>• Cauliflower<br>• Ladies Finger<br>• Tomato<br>• Gherkins<br>• Mint<br>• Plantain stem<br>• Plantain Flower<br>• Radish<br>• Snake Gourd<br>• Black eyed pea<br>• Cilantro<br>• Koala Rabi<br>• All green leaves | Explaining | booklet | listening | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| | | | • Coffee or tea without sugar, without milk or small quantity of milk<br><br>**Foods to allowed if hungry in between meal time**<br><br>• Butter milk<br>• Tomato<br>• Vegetable soup<br>• Cucumber<br><br>**Fruits allowed one once a day (if blood sugar controlled)**<br><br>• Citrus sinensis-1<br>• Apple- ½<br>• Water Melon 00gm<br>• Guava – ½<br>• Papaya – 100gms<br>• Pears – 1 small<br><br>**Diabetes Patients avoided foods**<br><br>**All Yam Types**<br><br>• Potato<br>• Yam<br>• Elephant Yam<br>• Beetroot<br>• Plantain | | | | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| | | | **All Sweet Items**<br><br>• Sugar<br>• Honey<br>• Glucose<br><br>**Snacks**<br><br>• Cake<br>• Chocolate<br>• Ice creams<br>• Jam<br>• Jelly<br>• Sweet Biscuit<br><br>**Oils for cooking for Diabetes**<br><br>• Sunflower Oil<br>• Seasame Oil<br><br>**Non Vegetarian for Diabetes**<br>• Boiled egg (White Portion)-2<br>• Fish-2 Pcs (Weekly 2 or 3)<br>• Chicken without skin- 50gms (Monthly once) | | | | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| | | | **Chutney Verities**<br><br>• Tomato Chutney<br>• Mint chutney<br>• Curry Leaves chutney<br>• Onion chutney<br>• Sambar<br>• Chilly Powder<br><br>**Health Drinks**<br>• Horlicks<br>• Bornvita<br>• Boost<br><br>**Cool Drinks**<br>• Limka<br>• Fanta<br>• Coco Cola<br>• Fruit Drinks<br><br>**Oil and Its products**<br>• Ghee<br>• Butter<br>• Dalda<br>• Coconut Oil | | | | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| | | | **Pickle and Fried Foods**<br><br>• Pickles<br>• Fried food items in Oil or Ghee<br><br>**Non Vegetarian**<br><br>• Beef<br>• Liver<br>• Brain<br>• Heart<br><br>**Nuts**<br><br>• Badam<br>• Pista<br>• Walnut<br>• Cashew<br><br>**Fruits**<br>• Manog<br>• Jackfruit<br>• sapodilla<br>• Dates<br><br>**Dried Fruits**<br>• Dry Grapes<br>• Smoking and Alcohol | | | | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| | | | **Others**<br>• Buffallo Milk<br>• Maida<br>• Sago<br><br>**Salt**<br>• Pickle<br>• Dry Fish | | | | |
| 6. | 5 min | explain lifestyle modification for diabetes patients | **LIFE STYLE MODIFICATION**<br><br>• Avoid to stop smoking and use of tobacco related products<br><br>• Increasing physical activity/ exercises<br><br>• Maintaining ideal today weigh<br><br>• adopt a healthy dietary habit<br><br>• Advice to avoid stress<br><br>• Avoid over eating and over weight<br><br>• Maintain Normal blood sugar and normal blood pressure<br><br>• Advice to avoid alcohol consumption | Explaining | Booklet | listening | |

| S. No | Time | Contributory Objectives | Content | Teacher Activity | AV Aids | Clients Activity | Evaluation |
|---|---|---|---|---|---|---|---|
| 7. | 5 min | establish the complications of Diabetes Mellitus | **COMPLICATIONS OF DIABETES MELLITUS**<br><br>**Eye**<br>• Pain in eye<br>• Double vision<br>• Blurred vision<br>• Blindness<br><br>**Kidney**<br>• Facial puffiness<br>• Leg swelling<br>• Loss of appetite<br>• Reduced urine output<br>• Proteinuria<br>• Hypertension<br><br>**Brain and Central Nervous System**<br>• Numbness in extremities<br>• Paraplegia, Giddiness<br>• Blurring sensation in extremities<br>• Loss of memory<br><br>**Heart**<br>• Chest Pain, Dyspnoea<br>• Palpitation<br>• Left hand and should pain | **explaining** | booklet | Listening | |

# DIET CHART MEAL PLANNING

| Time | Menu | 1200 Kcals | 1400 Kcals |
|------|------|-----------|-----------|
| 6.00am | Tea (or) Coffee Without sugar | 100ml | 100ml |
| 8.00am | Idly (or) | 2 | 3 |
| | Dosai (or) | 2 | 2 |
| | Chappathi (or) | 2 | 3 |
| | Uppuma (or) | 1 Cup | 1½ Cup |
| | Pongal with chutney or sambar (Avoid coconut) | 100ml | 100ml |
| | Vegetables | 50gm | 50gm |
| 11.00am | Butter Milk | 100ml | 100ml |
| | Marie Biscuit | 2 | 2 |
| | Vegetable Soup | 100ml | 100ml |
| | Green Vegetables | 100gm | 100gm |
| | Fruits | 100gm | 100gm |
| 1.00pm | Rice | 2 Cup | 1½ Cup |
| | Greens | 100gm | 100gm |
| | Vegetables | 100gm | 100gm |
| | Sambar | 100ml | 100ml |
| | Chicken (or) Fish | 50gm | 50gm |
| | Butter Milk/ Rasam | 100ml/100ml | 100ml/100ml |
| 5.00pm | Tea (or) Coffee without sugar | 100ml | 100ml |
| | Marie Biscuit | 2 | 2 |
| | Sundal | ½ Cup | ¾ Cup |
| | Uppuma | ½ Cup | ¾ Cup |
| 8.00pm | Uppuma | 1 Cup | 1½ Cup |
| | Chappathi | 2 | 2 |
| | Idly/ Dosai | 2 | 2 |
| | Vegetables | 100gm | 100gm |
| | Dhall | 50ml | 50ml |
| 10.00pm | Milk without sugar | 50ml | 50ml |

**CONCLUSION**

Through this teaching plan the clients gain more knowledge and skill understand about the Home Based Diabetic Management Programme (HBDMP) and the clients improved their knowledge and healthy life style behavior about Type-II Diabetes Mellitus.

# செவிலியர் கல்லூரி,
## சென்னை மருத்துவக் கல்லூரி, சென்னை-600 003.

### நீரிழிவு நோயாளிகளுக்கான இருப்பிடம் சார்ந்த சிகிச்சை பற்றிய நலக்கல்வியின் பாடத்திட்டம்

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| தலைப்பு | : | நீரிழிவு நோயாளிகளுக்கான இருப்பிடம் சார்ந்த சிகிச்சை முறை |
| குழு | : | 40 வயது முதல் 60 வயது வரை உள்ள நீரிழிவு நோயாளிகள் |
| இடம் | : | மேம்படுத்தப்பட்ட ஆரம்ப சுகாதார நிலையம், சூளை, சென்னை-112. |
| நேரம் | : | 30 நிமிடங்கள் |
| விரிவுரை | : | போதனை முறை |
| போதனைக்கு உதவிய கருவிகள் : | | கணிப்பொறி |

## பொது நோக்கங்கள்

இந்த பாடத்திட்டத்தின் முடிவில் நீரிழிவு நோயாளிகளுக்கான இருப்பிடம் சார்ந்த சிகிச்சை பற்றிய தெளிவான அறிவும், செயல்முறையும் நீரிழிவு நோயாளிகள் அறிந்து செயல்படுவார்கள்.

## குறிப்பிட்ட இலக்குகள்

நீரிழிவு நோயாளிகள் இந்த பாடத்திட்டத்தின் முடிவில்

❖ நிரிழிவு நோயின் வரையறை மற்றும் நீரிழிவு நோய் பற்றிய பொதுப்படையான தகவல்கள்

❖ நீரிழிவு நோயின் அறிகுறிகள் விவரிக்க

❖ நீரிழிவு நோயின் காரணங்களை விவரிக்க

❖ நீரிழிவு நோயாளிகள் சாப்பிடக்கூடிய மற்றும் தவிர்க்க வேண்டிய உணவு வகைகளை பட்டியலிடு

❖ நீரிழிவு நோயாளிகளுக்கான ஒருநாள் உணவு திட்டம் பற்றி பட்டியலிடு

❖ நீரிழிவு நோயாளிகளுக்கான வாழ்க்கை முறை மாற்றத்தை விவரி

❖ நீரிழிவு நோயின் பக்க விளைவுகளை விவரி

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
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| 1. | 5 நிமி | நீரிழிவு நோயின் வரையறை மற்றும் பொதுப்படையான தகவல்கள் | **நீரிழிவு நோய்-வரையறை**<br><br>நீரிழிவு நோய் என்பது வளர்சிதை மாற்ற நோய்களின் குழுமம் ஆகும். அதன் தன்மை யாதெனில் இன்சுலின் சுரப்பதின் அளவு குறைதல், கல்லீரல், கணையம் போன்றவை நோய்க்குட்பட்டு இருக்கும் நிலையில் சுரந்த இன்சுலின் சரிவர உபயோகப்படுத்தப் படாமல் இருப்பதாலும், இரத்தத்தில் சர்க்கரையின் அளவு அதிகமாகி ஹைபோகிளைசீமியா என்ற நிலை ஏற்படுகிறது. இதையே நாம் சர்க்கரை நோய் அல்லது நீரிழிவு நோய் என்று கூறுகிறோம்.<br><br>**நீரிழிவு நோய் பற்றிய பொதுவான தகவல்கள்**<br><br>• கணையத்திலுள்ள பீட்டா செல்களில் இருந்து இன்சுலின் சுரக்கிறது. இது இரத்தத்தில் சர்க்கரையின் அளவை கட்டுப்படுத்துகிறது.<br><br>• நமது உடல் பல மில்லியன் செல்களால் உருவாக்கப்பட்டது.<br><br>• செல் இயக்கத்திற்கு உணவு தேவை.<br><br>• நாம் உண்ணும் போதோ அல்லது திரவப் | விவரித்தல் | கவனித்தல் | உடகங்கள் |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
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| | | | பொருட்களைப் பருகும்போதோ உணவுப் பொருட்கள் உடைக்கப்பட்டு குளுக்கோஸாக மாற்றப்படுகிறது.<br><br>● குளுக்கோஸ் நமது உடல் இயக்கத்திற்கு தேவையான சக்தியை அளிக்கிறது.<br><br>● குளுக்கோஸானது இரத்தம் மற்றும் இரத்த நாளங்களின் வழியாக வயிறு மற்றும் கல்லீரலுக்கு தேவையான இடத்திற்கு பயன்படவோ அல்லது கொழுப்பாக சேமிக்கவோ செயல்படுகிறது.<br><br>● சர்க்கரை நேரடியாக செல்களுக்கு செல்ல முடியாது.<br><br>● ஆகவே கணையம் இன்சுலின் உதவியுடன் சர்க்கரையை செல்களுக்குள் செலுத்த ஒரு சாவியாக செயல்படுகிறது.<br><br>● இன்சுலின் இல்லாதபோது அல்லது இன்சுலின் அளவு குறைவாக உள்ளபோது சர்க்கரையின் அளவு சக்தியாக மாற்ற முடியாமல் போகும்போது சர்க்கரையின் அளவு அதிகமாகிறது.<br><br>● இரத்தத்தில் சர்க்கரையின் அளவு அதிகமாகும் நிலையை ஹைபர்கிளைசீமியா என்கிறோம். | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சியாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
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| 2. | 5 நிமி | நீரிழிவு நோயின் அறிகுறிகள் மற்றும் காரணங்கள் | **நீரிழிவு நோயின் அறிகுறிகள்**<br>• அடிக்கடி தாகம்<br>• அதிக பசி<br>• மிக வேகமாக எடை குறைதல்<br>• கண்பார்வை மங்குதல்<br>• அதிகமாக சோர்வடைவது<br>• வெட்டு காயம்/ சிராய்ப்பு ஆகியவை ஆறுவதற்கு அதிக காலம் பிடித்தல்<br>• பாதங்களில் உணர்ச்சி குறைவு அல்லது எரிச்சல் | | | |
| 3. | | நீரிழிவு நோயின் காரணங்களை விவரிக்க | **நீரிழிவு நோய் வருவதற்கான காரணங்கள்**<br>• பரம்பரையில் சர்க்கரை நோய் இருப்பவர்களுக்கு<br>• எடை அதிகமாக இருப்பவர்கள்<br>• இரத்தக்கொதிப்பு<br>• கர்ப்பகாலத்தில் சர்க்கரை நோய் வருபவர்களுக்கு | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சியாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
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| 4. | 7 நிமி | நீரிழிவு நோயாளிகள் சாப்பிடக்கூடிய மற்றும் தவிர்க்க வேண்டிய உணவு வகைகள் | **நீரிழிவு நோயாளிகள் சாப்பிடக்கூடிய உணவு வகைகள்**<br>• பீன்ஸ்<br>• கறிவேப்பிலை<br>• முட்டைகோஸ்<br>• குடை மிளகாய்<br>• முருங்கைக்காய்<br>• பாகற்காய்<br>• புடலங்காய்<br>• வெள்ளரிக்காய்<br>• கேரட்<br>• காலி பிளவர்<br>• வெண்டைக்காய்<br>• தக்காளி<br>• புதினா<br>• வாழைக்காய்<br>• வாழைப்பூ<br>• முள்ளங்கி | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
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| | | | • அனைத்து வகையான கீரை வகைகள்<br>• தேநீர் அல்லது காபி சர்க்கரை, பால் இல்லாமல்<br><br>**சாப்பிடும் நேரத்திற்கு இடையில் பசி இருந்தால் மட்டும் சாப்பிடக்கூடிய உணவு வகைகள்**<br>• மோர்<br>• காய்கறி சூப்<br>• வெள்ளரிக்காய்<br><br>**பழவகைகள் ஒரு நாளைக்கு ஒரு முறை மட்டும் (சர்க்கரையின் அளவு கட்டுப்பாடாக உள்ளது)**<br>• சாத்துக்குடி–1<br>• ஆப்பிள்– பாதி<br>• கொய்யா– பாதி<br>• பப்பாளி– 100 கிராம்<br>• பேரிக்காய்– 1 சிறியது | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
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| | | | **நீரிழிவு நோயாளிகள் தவிர்க்கக்கூடிய உணவு வகைகள்** | | | |
| | | | <u>**அனைத்து வகையான கிழங்கு வகைகள்**</u> | | | |
| | | | • உருளைக்கிழங்கு | | | |
| | | | • சேனைக்கிழங்கு | | | |
| | | | • பீட்ரூட் | | | |
| | | | • கருணைக் கிழங்கு | | | |
| | | | • வாழைப்பழம் | | | |
| | | | <u>**அனைத்து வகையான இனிப்பு வகைகள்**</u> | | | |
| | | | • சர்க்கரை | | | |
| | | | • தேன் | | | |
| | | | • குளுக்கோஸ் | | | |
| | | | <u>**திண்பண்டங்கள்**</u> | | | |
| | | | • கேக் | | | |
| | | | • சாக்லெட் | | | |
| | | | • ஐஸ்கிரீம் | | | |
| | | | • பிஸ்கெட் | | | |
| | | | • ஜாம், ஜெல்லி | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
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| | | | **நீரிழிவு நோயாளிகளுக்கு உகந்த சமையல் எண்ணெய்** | | | |
| | | | ● சூரியகாந்தி எண்ணெய் | | | |
| | | | ● நல்லெண்ணெய் | | | |
| | | | **நீரிழிவு நோயாளிகளுக்கு உகந்த அசைவ உணவுகள்** | | | |
| | | | ● வேகவைத்த முட்டை (வெள்ளைப்பகுதி)– 2 | | | |
| | | | ● மீன்– 2 துண்டுகள் (வாரத்திற்கு 2 அல்லது 3 முறை) | | | |
| | | | ● கோழிக்கறி தோல் இல்லாமல்– 50 கிராம் (மாதம் 1முறை) | | | |
| | | | **சட்னி வகைகள்** | | | |
| | | | ● தக்காளி சட்னி | | | |
| | | | ● புதினா சட்னி | | | |
| | | | ● கறிவேப்பிலை சட்னி | | | |
| | | | ● வெங்காய சட்னி | | | |
| | | | **சத்து பானங்கள்** | | | |
| | | | ● ஹார்லிக்ஸ் | | | |
| | | | ● போன்விட்டா | | | |
| | | | ● பூஸ்ட் | | | |
| | | | **குளிர்பானங்கள்** | | | |
| | | | ● லிம்கா, பேன்டா, கோகோகோலா | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
|---|---|---|---|---|---|---|
| | | | **எண்ணெய் உணவு வகைகள்**<br>• நெல்<br>• வெண்ணெய்<br>• டால்டா<br>• தேங்காய் எண்ணெய்<br><br>**ஊறுகாய் மற்றும் பொறித்த உணவு வகைகள்**<br>• ஊறுகாய்<br>• நெல் (அ) எண்ணெயில் பொறித்த உணவுகள்<br><br>**அசைவ உணவுகள்**<br>• மாட்டுக்கறி<br>• கல்லீரல்<br>• மூளை<br>• இதயம்<br><br>**கொட்டை வகைகள்**<br>• பாதாம்<br>• பிஸ்தா<br>• வால்நட்<br>• முந்திரி | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
|---|---|---|---|---|---|---|
| | | | **பழ வகைகள்**<br><br>• மாம்பழம்<br>• சப்போட்டா<br>• பேரிச்சை<br><br>**உலர் பழ வகைகள்**<br><br>• உலர் திராட்சை<br>• புகை பிடித்தல் மற்றும் மது அருந்துதல்<br><br>**இதர வகைகள்**<br><br>• எருமைப்பால்<br>• மைதா<br><br>**உப்பு**<br><br>• ஊறுகாய்<br>• பொரித்த மீன் | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
|---|---|---|---|---|---|---|
| 6 | | நீரிழிவு நோயாளி களுக்கான வாழ்க்கை முறை மாற்றம் பற்றிய விரிவுரை | **வாழ்க்கை முறை மாற்றம்**<br><br>• புகைபிடித்தல் மற்றும் புகையிலை சார்ந்த பொருட்களை தவிர்த்தல்<br><br>• உடற்பயிற்சியை அதிகரித்தல்<br><br>• உடல் எடையை பேணுதல்<br><br>• ஆராயோக்கியமான உணவுப் பழக்கத்தை மேற்கொள்ளுதல்<br><br>• மன அழுத்தத்தை குறைத்தல்<br><br>• இரத்த சர்க்கரை மற்றும் இரத்தக் கொதிப்பை பராமரித்தல்<br><br>• மது அருந்துதலை தவிர்த்தல் | | | |

| வ. எண் | நேரம் | குறிப்பான நோக்கங்கள் | பொருளடக்கம் | ஆராய்ச்சி யாளர் செயல் | மாணவர்கள் செயல்கள் | ஒலி, ஒளி சார் உபகரணங்கள் |
|---|---|---|---|---|---|---|
| 6 | 5 நிமி | நீரிழிவு நோயின் பின்விளைவுகள் | **நீரிழிவு நோயின் பின்விளைவுகள்**<br><u>**கண்கள்**</u><br>• கண்ணில் வலி<br>• மங்கலான பார்வை<br>• பார்வை இழத்தல்<br><u>**சிறுநீரகம்**</u><br>• முக வீக்கம்<br>• கால் விக்கம்<br>• பசியின்மை<br>• சிறுநீரின் அளவு குறைதல்<br>• இரத்தக் கொதிப்பு<br><u>**இதயம்**</u><br>• நெஞ்சுவலி<br>• மூச்சு வாங்குதல்<br>• படபடப்பு<br>• இடது கை மற்றும் தோள்பட்டையில் வலி<br><u>**மூளை மற்றும் நரம்பு மண்டலம்**</u><br>• கை, கால்களில் உணர்ச்சியின்மை<br>• பக்கவாதம்<br>• ஞாபக மறதி | | | |

**முடிவுரை**

இந்த கற்பிக்கும் முறையின் மூலமாக நீரிழிவு நோயாளிகள், இருப்பிடம் சார்ந்த நீரிழிவு நோய் சிகிச்சை முறையை பற்றிய இவர்களுடைய

அறிவு மற்றும் வாழ்க்கை முறை பற்றி நன்கு அறிந்து கொண்டார்கள்.

# நீரிழிவு நோயாளிகளுக்கான ஒரு நாள் உணவு பட்டியல்

| நேரம் | உணவுப் பட்டியல் | 1200 கலோரி | 1400 கலோரி |
|---|---|---|---|
| 8.00 மணி | இட்லி (அ) தோசை (அ) சப்பாத்தி (அ) உப்புமா (அ) பொங்கல் | 2 | 3 |
| | | 1கப் | 1.5கப் |
| | சட்னி (அ) சாம்பார் | 50கி | 50கி |
| | காய்கறிகள் | | |
| 11.00 மணி | மோர் | 100மி.லி | 100மி.லி |
| | மேரி பிஸ்கர் | 2 | 2 |
| | காய்கறி சூப் | 100மி.லி | 100மி.லி |
| | பச்சை காய்கறிகள் | 100கி | 100கி |
| | பழங்கள் | 100கி | 100கி |
| 1.00 மணி | சாதம் | 2கப் | 1.5கப் |
| | பச்சை காய்கறிகள் | 100கி | 100கி |
| | சாம்பார் | 100மி.லி | 100மி.லி |
| | கோழிக்கறி (அ) மீன் | 50கி | 50கி |
| | மோர் / ரசம் | 100மி.லி/ 100மி.லி | 100மி.லி/ 100மி.லி |
| 5.00 மணி | டீ (அ) காபி சர்க்கரை இல்லாமல் | 100மி.லி | 100மி.லி |
| | மேரி பிஸ்கட் | 2 | 2 |
| | சுண்டல் | ½ கப் | ¾ கப் |
| | உப்புமா | ½ கப் | ¾ கப் |
| 8.00 மணி | உப்புமா | 1கப் | 1½ கப் |
| | சப்பாத்தி | 2 | 2 |
| | இட்லி/ தோசை | 2 | 2 |
| | காய்கறிகள் | 100கி | 100கி |
| | பருப்பு | 50மி.லி | 50மி.லி |
| 10.00 மணி | பால் சர்க்கரை இல்லாம்ல | 50மி.லி | 50மி.லி |

# CERTIFICATE OF PLAGIARISM

This is to certify that dissertation titled **"A STUDY TO ASSESS THE IMPACT OF HOME BASED DIABETIC MANAGEMENT PROGRAMME (HBDMP) AMONG TYPE II DIABETIC CLIENTS AT URBAN PRIMARY HEALTH CENTRE, CHENNAI"** of the candidate **Mrs.PARIMALA.R,** for the partial fulfillment of M.Sc. Nursing Programme in the branch of **COMMUNITY HEALTH NURSING** has been verified for plagiarism through relevant plagiarism checker. We found that the uploaded thesis file from introduction to conclusion pages and rewrite shows _____% of Plagiarism (_____% uniqueness) in this dissertation.

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Reader,                                          Principal,
College of Nursing,                    College of Nursing,
Madras Medical College,              Madras Medical College,
Chennai - 03.                                Chennai -03.
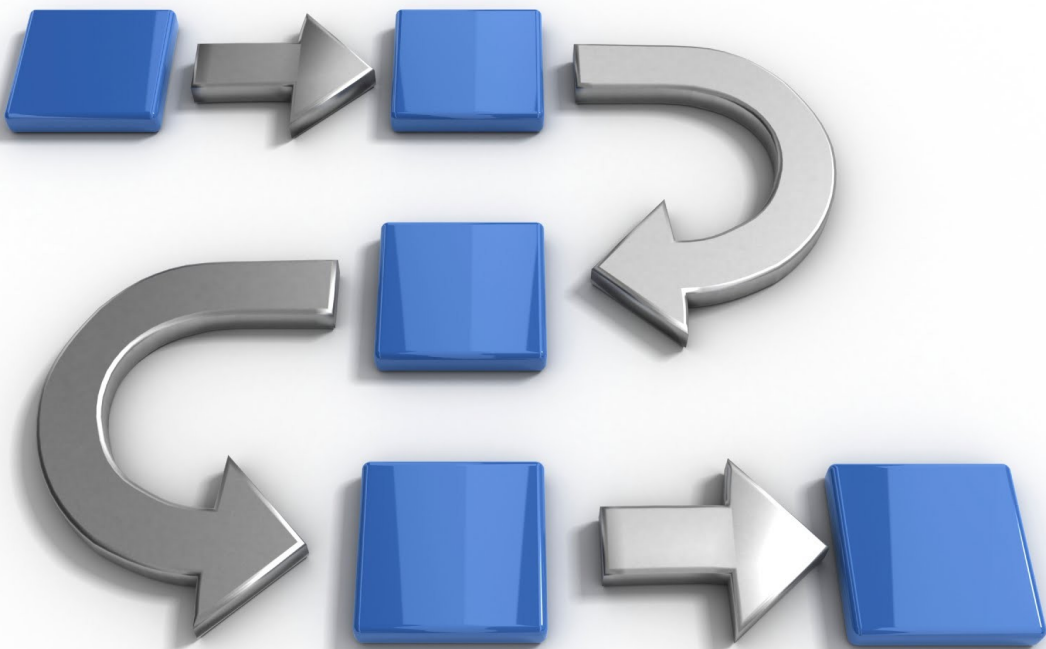
# *Chapter-I*
# *Introduction*

# Chapter-II
# Review of Literature

# Chapter-III
# Research Methodology

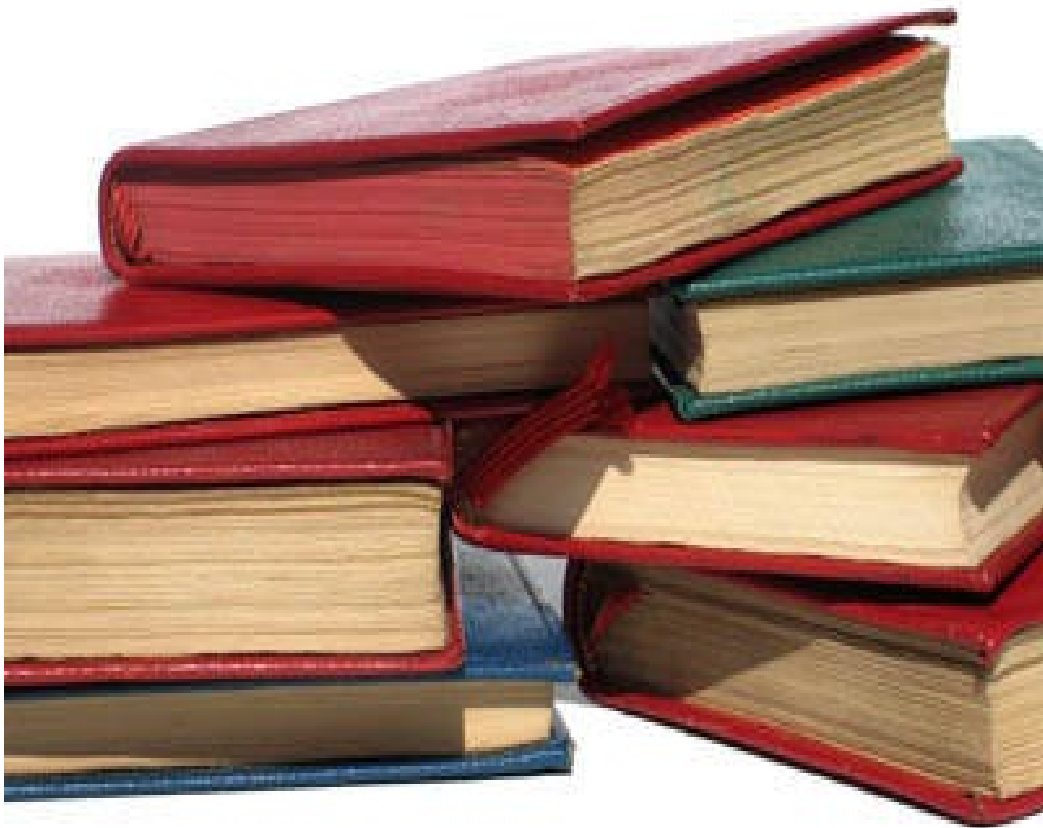# Chapter-IV
# Data Analysis & Interpretation

# Chapter-V
# Discussion

# Chapter-VI
# Summary, Implication, Recommendation, Limitation & Conclusion

# References

# Appendices