Study on Diabetes patient diet food and physical activity

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Social work research statistics

Abstract:

Diabetes mellitus (DM), commonly known as just diabetes, is a group of metabolic disorders characterized by a high blood sugar level over a prolonged period of time Symptoms often include frequent urination, increased thirst and increased appetite. If left untreated, diabetes can cause many health complications Acute complications can include diabetic ketoacidosis, hyperosmolar hyperglycaemic state, or death. Serious long-term complications include cardiovascular disease, stroke, chronic kidney disease, foot ulcers, damage to the nerves, damage to the eyes and cognitive impairment.

Introduction:

Diabetes and pre-diabetes are serious conditions in which people have high levels of sugar or glucose in their blood. The World Health Organization (WHO) reports that more than 420 million people worldwide live with diabetes. In the US, according to the US Centres for Disease Control and Prevention (CDC), over 30 million people have diabetes and 84 million adults have pre-diabetes (blood sugar levels are higher than normal, but not high enough to be diagnosed with type 2 diabetes). Diabetes is a major cause of blindness, amputation, kidney failure, and cardiovascular disease.

Glucose is a type of sugar that is used as fuel by the body. When you eat, your body converts food into glucose. The glucose then goes into your bloodstream and is carried throughout the body to provide energy to all of your cells. In order for glucose to move from your bloodstream into your cells, you need insulin. Insulin carries the glucose, or sugar, in your bloodstream into your cells. Insulin is a hormone made by the pancreas, an organ in the upper part of your abdomen (belly).

If your body has a problem making or using insulin, the glucose in your bloodstream cannot get into your cells. As a result, glucose stays in the blood (high blood sugar) and the cells do not get enough glucose. A diagnosis of pre-diabetes or diabetes is made when glucose stays at higher-than-normal levels (also called hyperglycaemia).

Objectives of the study:

1) To know about the different types of diabetes and its causes.

2) To know about the diet food to be followed by diabetics patients

3) To know about the physical activity which should be done by diabetics patients

4) To know about the prevention and control of diabetes mellitus

Methodology

The methodology taken for the study with the topic "Diabetes patients diet food and physical activity" is discussed below:

1. Population and sample size
2. Sample technique
3. Data collection
4. Research instrument
5. Tools used

1.Population and sample size

The population of the study includes Diabetes patient diet food and physical activity. The Questionnaires was just sent through the online platform and asked to fill out. This study involves a sample size of 30 respondents.

2.Sample Technique

Convenience sampling method was used to collect the questionnaire.

3. Data Collection

Primary data was collected with a self-administered questionnaire from the respondents, other sources were collected from journals, books, internet and also from the websites.

4. Research Instrument

The questionnaire method of data collection is quite popular particularly in case of big enquiries. The instrument used for data collection was very simple and easy to understand.

A questionnaire consists of a number of questions typed in definite order on a form or set of form. the questionnaire is given to the respondents who are able to read and understand the questions and answer them the questionnaire which is give to the respondents is used in this research.

Questions are related to objectives of the study; it is multiple choice questions so that respondents mark one of the several choices of answer.

5.Tools Used
Simple percentage

Limitations

☐ This study has only limited access to data.

☐ Sample size is too small, statistical tests would not be able to identify significant relationships within data set.

Sometimes it was very difficult to get the necessary information as filling the questionnaire required time.

Result and discussion

After analysing the collected data, the data is then interpreted in the tables below:

Age of the respondents

S. No	Age	No. Of. Respondents	Percentage
1	40-50 years	3	10%
2	51-60 years	14	47%
3	61-70 years	10	33%
4	71-80 years	3	10%
5	Above 80 years	0	0%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 10 percent of the respondents are from 40-50 years and 47percent of respondents are from 51 -60 years and 33percent are fromt61-70 and 10 percent of respondents are from 71-80 years

**Majority of the respondents who is having diabetes are from 51-60 years**
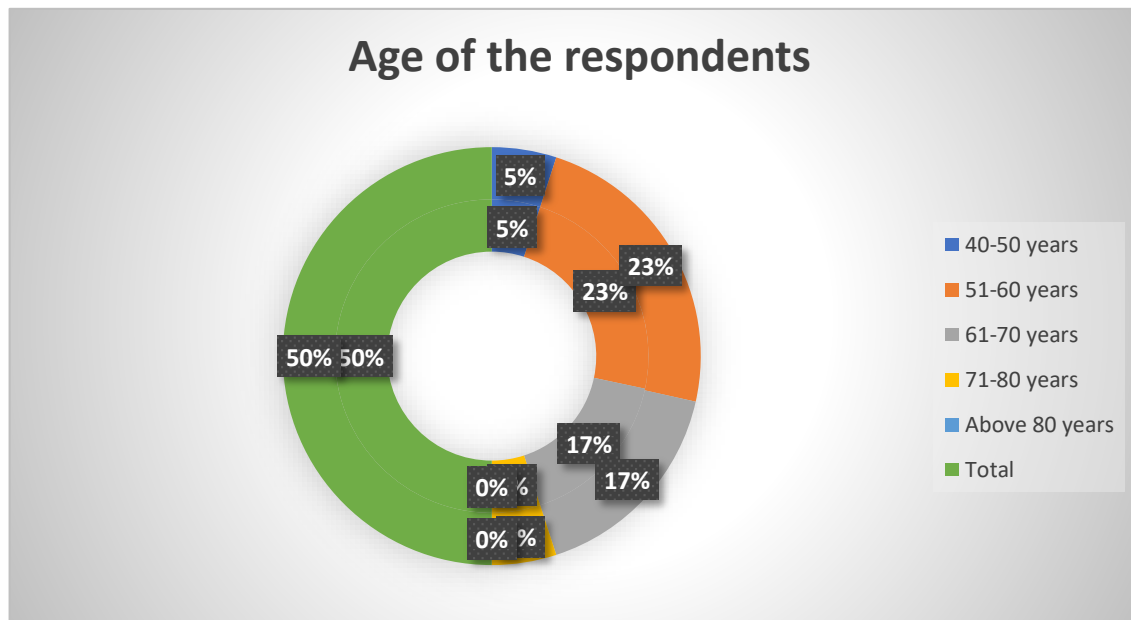
Gender of the respondents:

S. No	Gender	No. of. Respondents	percentage
1	Male	13	57%
2	Female	17	43%
3	Prefer not to say	0	0%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 57 percent of respondents are male and 43 percent of respondents are from female

**Majority of the respondents who is having diabetes is male**
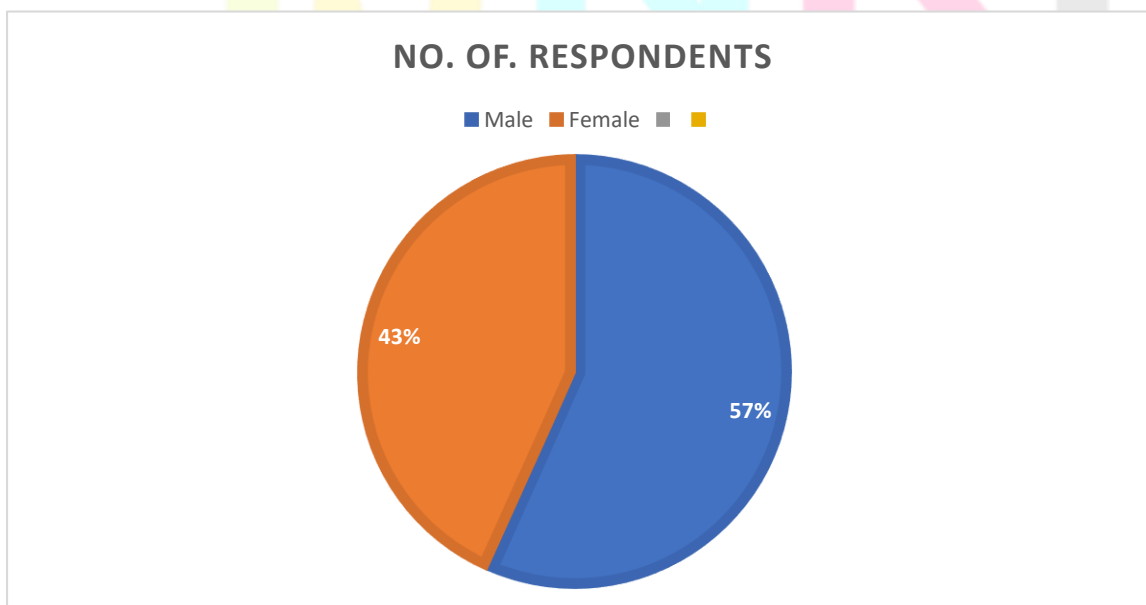
Educational qualification

S.No	Education	No. of Respondents	Percentage
1	primary	6	20%
2	Secondary	9	30%
3	Graduate	3	10%
4	Other	3	10%
5	None	9	30%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 20 percent had primary education, 30 percent had secondary education, 10 percent is graduate, 10 percent had other education and 30 percent had no education.

**Majority of the respondents had secondary education.**
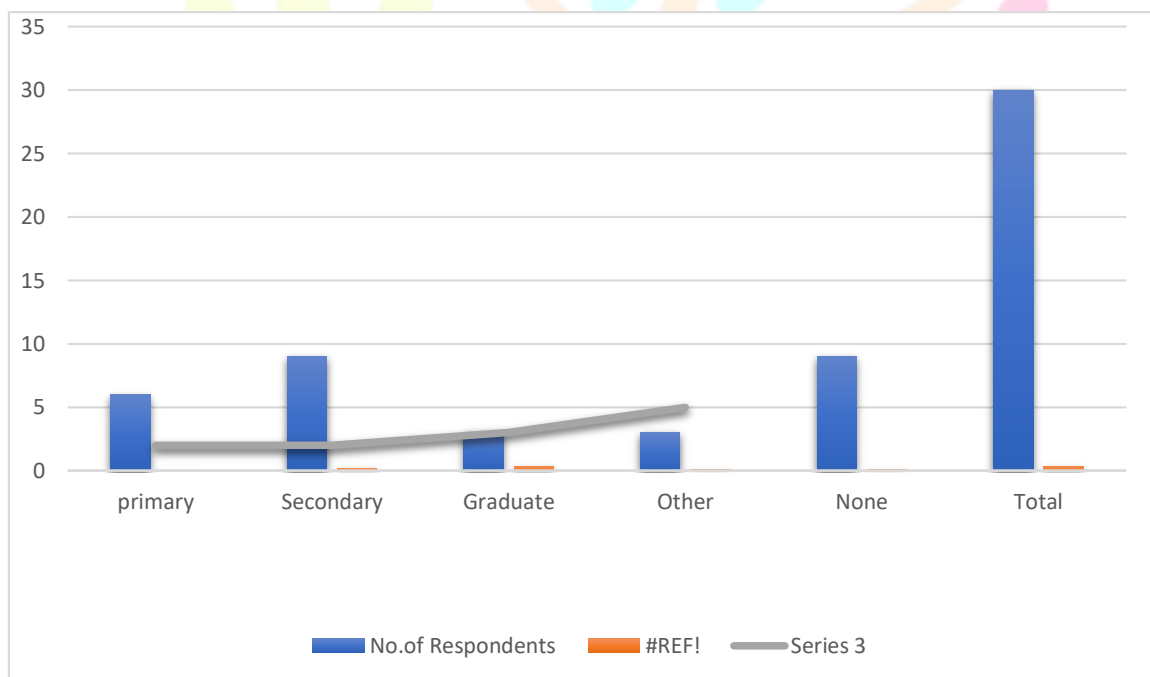
Period of diabetes:

S.No	Diabetes period	No. Of. Respondents	Percentage
1	1-5 years	13	43.3%
2	5-10 years	12	40%
3	10-15 years	4	13.3%
4	Above 15 years	1	3.3%
	Total	30	100%

From the above table it is observed that 43 percent of respondents have diabetes for the period of five years, 40 percent of respondents have diabetes for the period of 5-10 years, 13percent of respondents have diabetes for the period of 10-15 years and 3 percentage of respondents have diabetes for above 15 years.

**Majority of the respondents have diabetes for 1-5 years.**
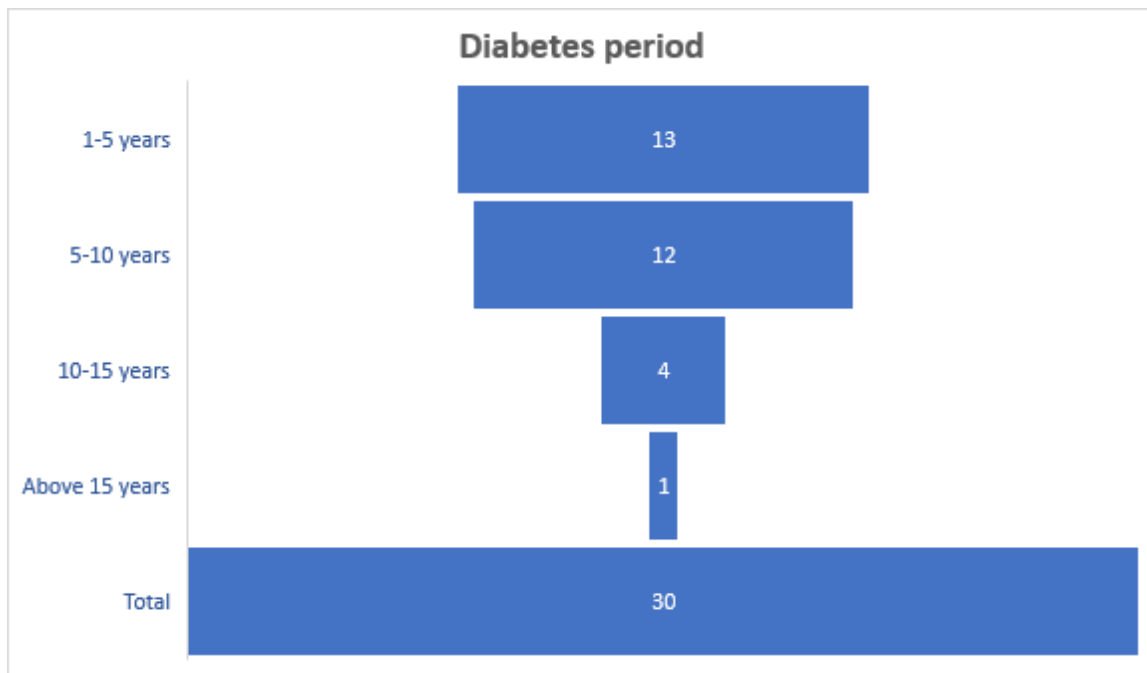
Types of diabetes

S.No	Types of Diabetes	No. Of. Respondents	Percentage
1	**Type 1**	**4**	**13.3**
2	**Type2**	**25**	**83.3%**
3	**Gestational diabetes**	**1**	**3.3%**
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 13percent of respondents is having type 1 diabetes and 83Percent have type 2 and 3 percent have gestational

Majority of the respondents have type 2 diabetes
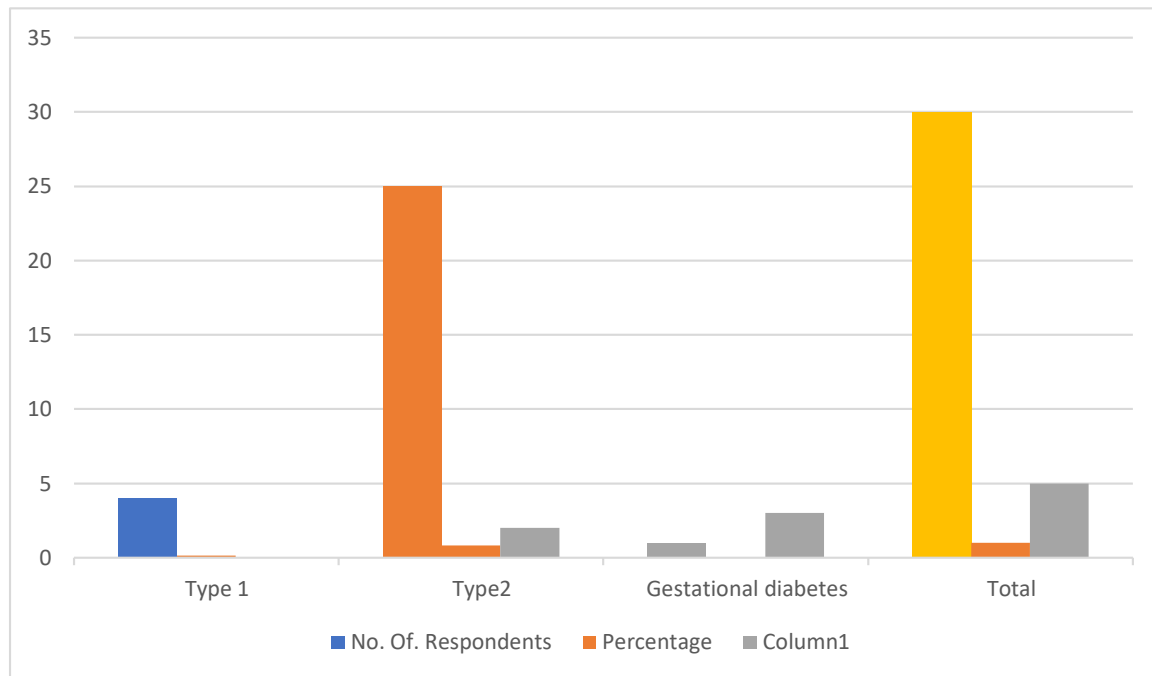
Kind of treatment for diabetes:

S.No	Treatment for Diabetes	No. Of. Respondents	Percentage
1	Insulin therapy	12	39.3%
2	Diet	10	32.1%
3	Exercise	4	14.3%
4	Meditation	4	14.3%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 43 percent of respondents have diabetes for the period of five years, 40 percent of respondents have diabetes for the period of 5-10 years, 13percent of respondents have diabetes for the period of 10-15 years and 3 percentage of respondents have diabetes for above 15 years.

Majority of the respondents have diabetes for 1-5 years.
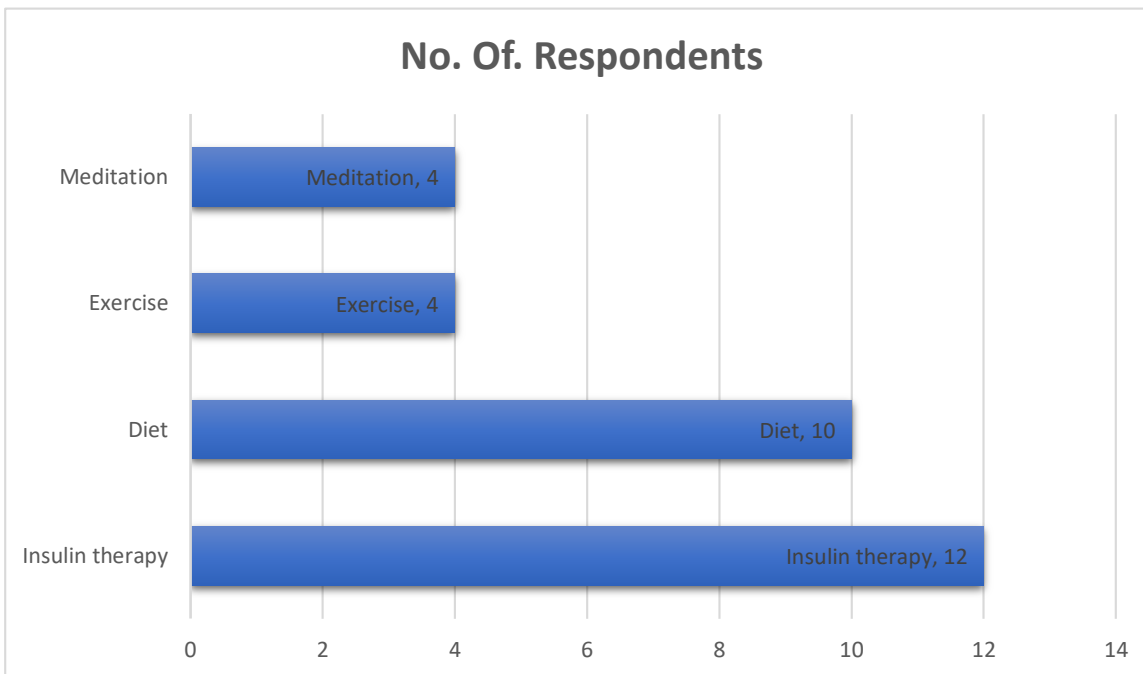
No. Of. Respondents

Testing glucose level :

S.No	Testing glucose level	No. Of. Respondents	Percentage
1	Daily after or before food	4	13.4%
2	Once or twice a weak	12	40%
3	According to your body level	7	23.3%
4	Thrice a weak	7	23.3%
	total	**30**	**100%**

Interpretation

From the above table it is observed that 13 percent of the diabetes patient are testing their glucose level after or before food, 40 are testing once or twice in a week and 23 are testing to their body level and 23 are testing Thrice a week

## Majority are testing Their glucose level once or twice a week
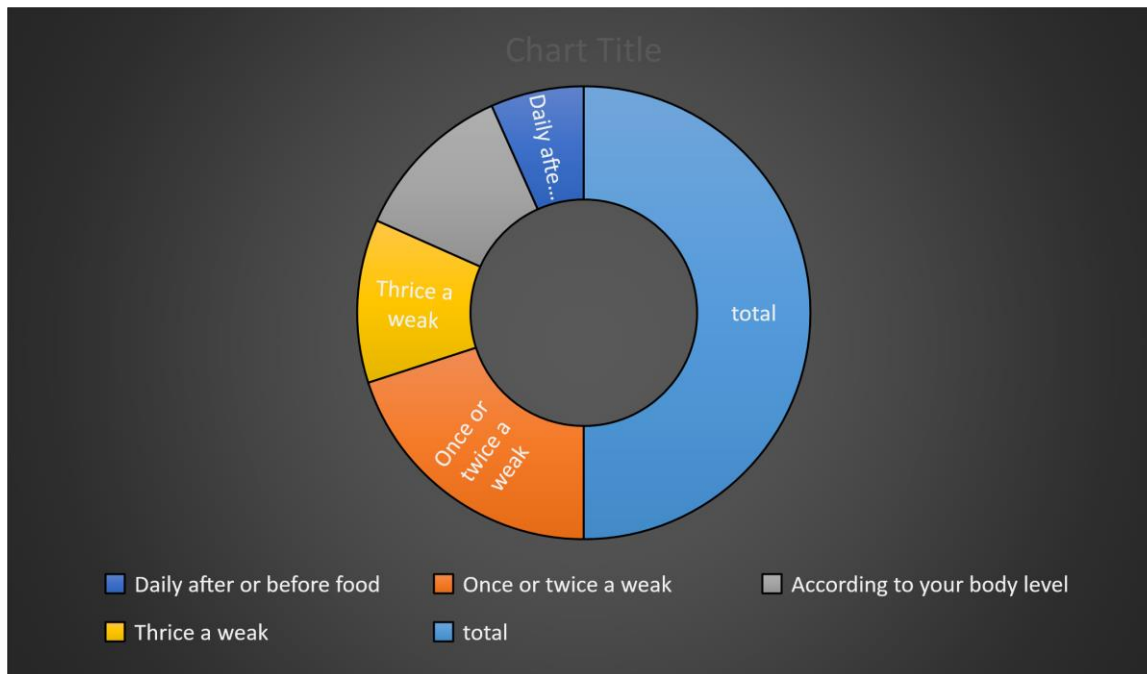
Glucose level of your body

S.No	glucose level	No. Of. Respondents	Percentage
1	Normal	6	20
2	Medium	14	46.7
3	High	9	30
4	Too high	1	3.3
	Total	**30**	**100**

Interpretation

From the above table it is observed that 20 percent of respondents is having normal glucose level and 46 percent is having medium level and 30percent is having high level and 3percent of respondents is having high level.

**Majority of the respondents is having medium glucose Level.**
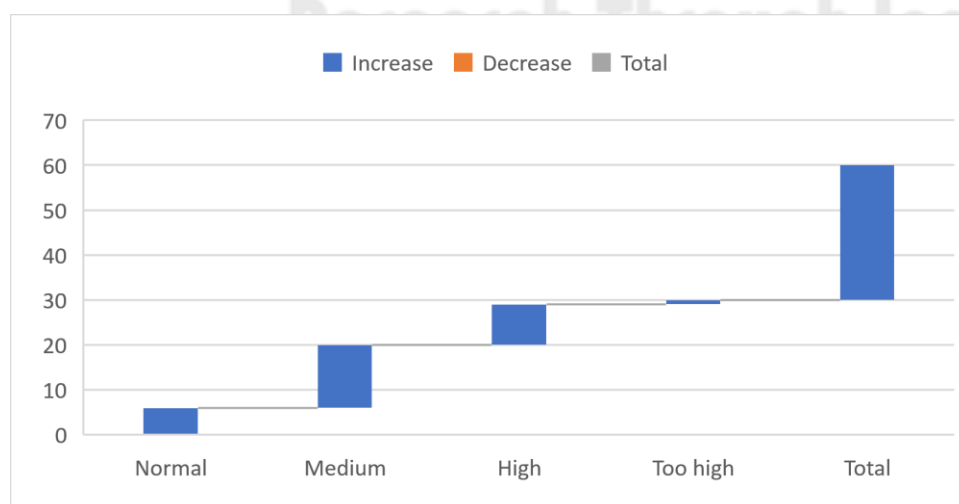
Insulin usage :

S.No	Insulin usage	No. Of. Respondents	Percentage
1	**1-2**	**9**	**30%**
2	**3-4**	**1.5**	**5%**
3	**More**	**1.5**	**5%**
4	**None**	**18**	**60%**
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 30 percent use 1-2 insulin, 5 percent use 3-4 insulin and 5 percent use more and 60 percent of the respondents use no insulin

Majority of the respondents use no insulin
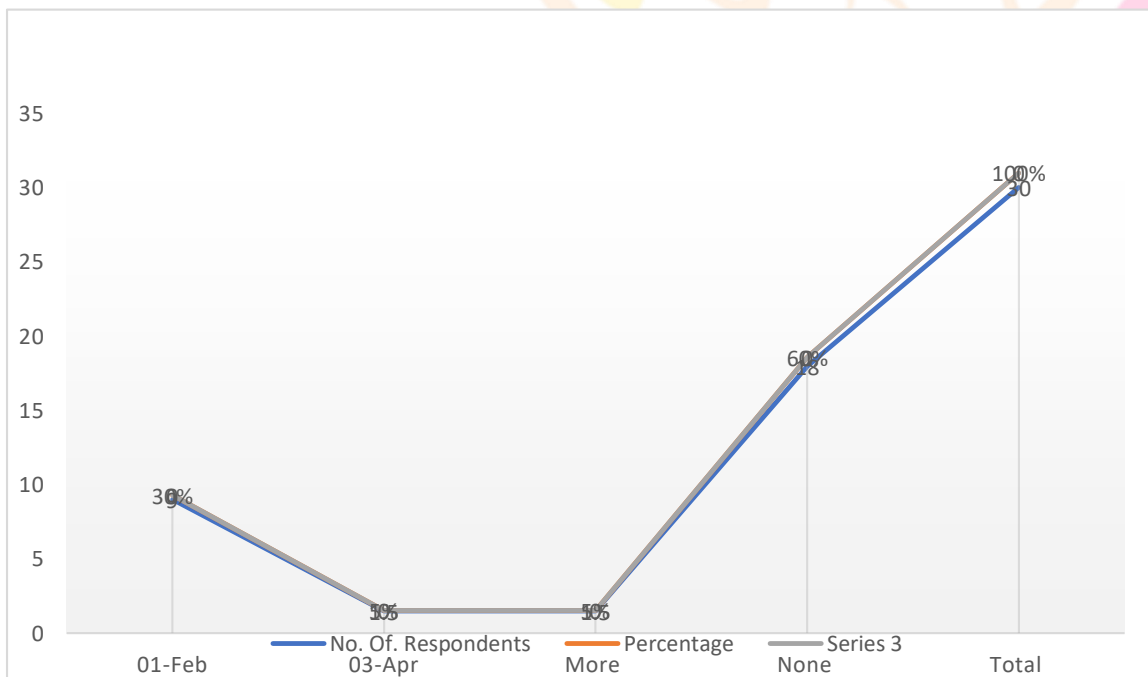
Experienced low sugar :

S.No	Experience of low sugar	No. Of. Respondents	Percentage
1	**Yes**	**14**	**46.7%**
2	**No**	**13**	**43.3%**
3	**May be**	**3**	**10%**
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 46 percent experienced low sugar, and 43 percent not experienced low sugar and 10 choose maybe experienced

**Majority of the respondents experienced low sugar**
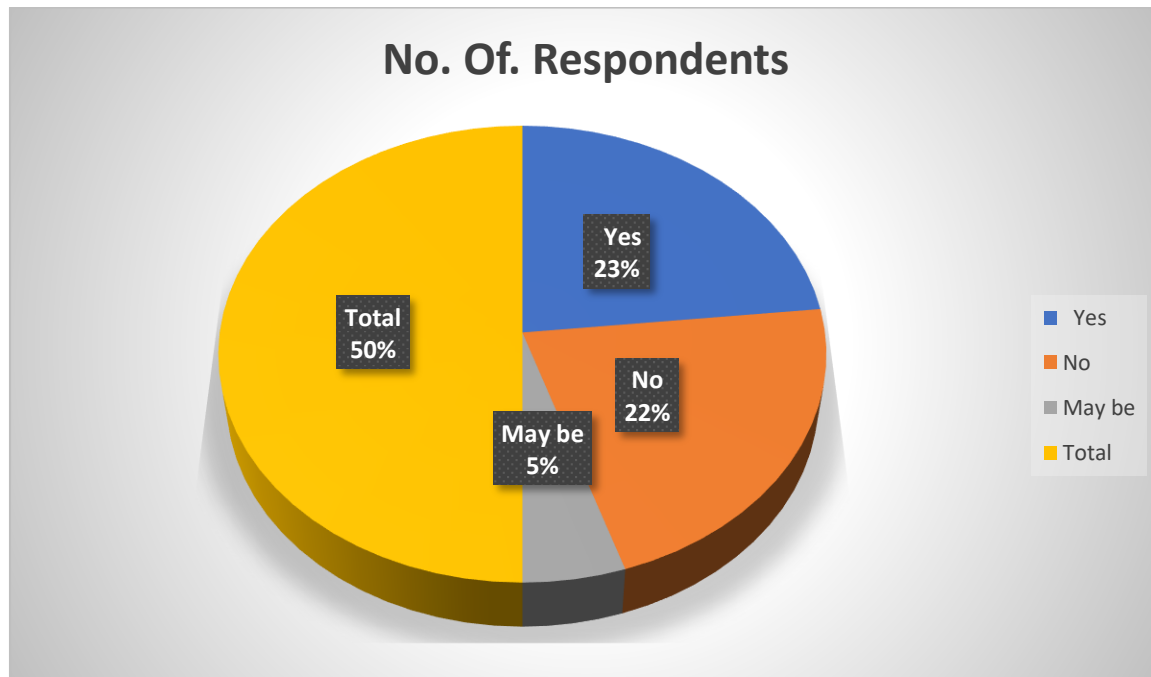
How often do you have low sugar :

S.No	Times	No. Of. Respondents	Percentage
1	**1-10**	**11**	**36%**
2	**11-20**	**1.2**	**4%**
3	**Often**	**2.4**	**8%**
4	**Don't know**	**15.6**	**52%**
	Total	**30**	**100%**

Interpretation:

From the above table it is observed that 36 percent of respondents have low sugar 1-10 times, 4 percent has low sugar for 11-20 times and 8 percent has often and 52 percent don't know whether they had Or not .

Majority of the respondents don't know how often they experienced low sugar
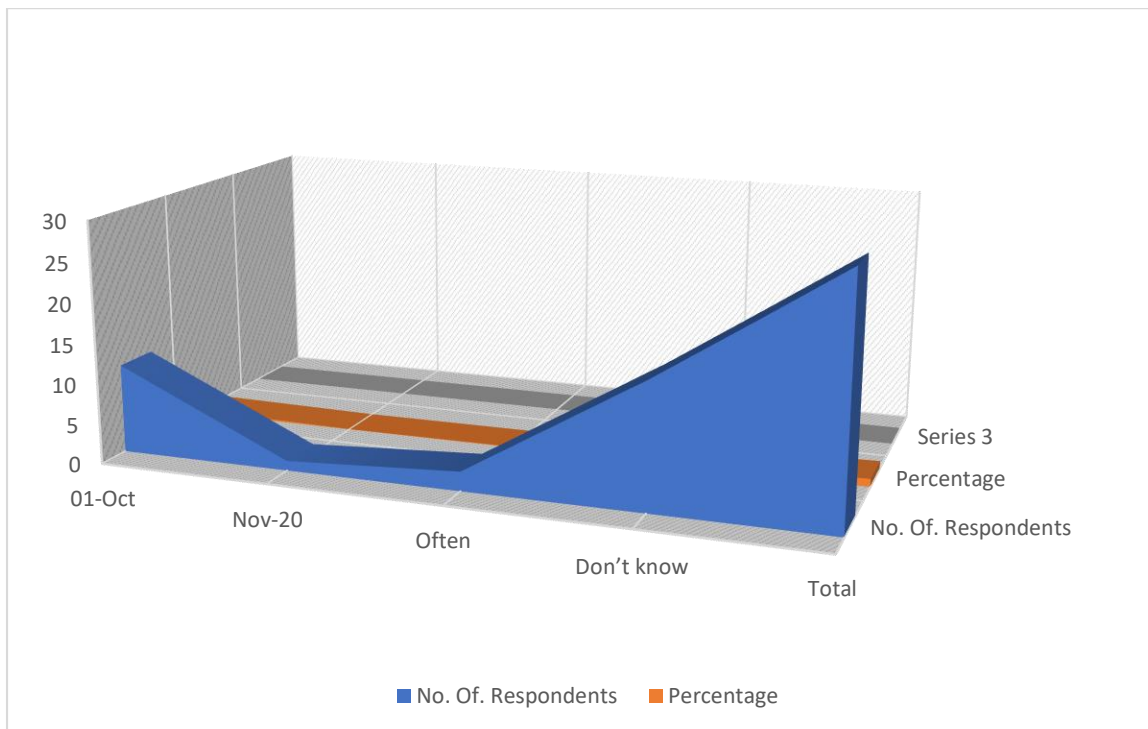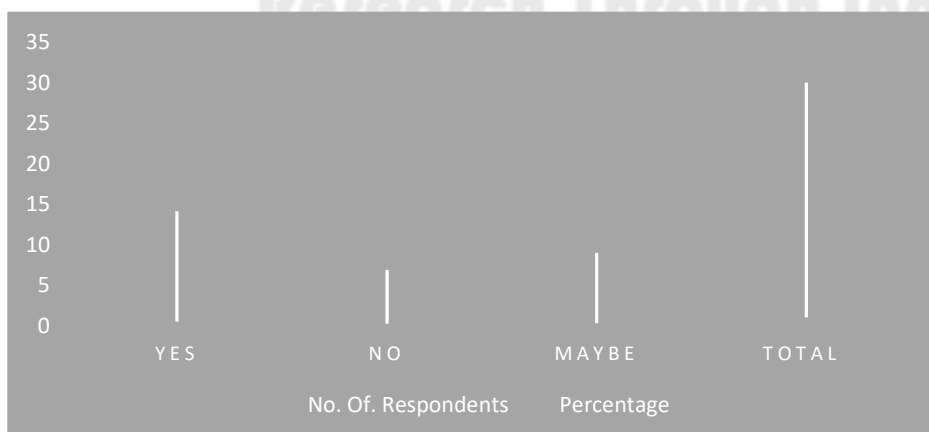

Do you often get anger

S.No	Types	No. Of. Respondents	Percentage
1	**Yes**	**14.1**	**46.7%**
2	**No**	**6.9**	**23.3%**
3	**Maybe**	**9**	**30%**
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 46percent is gets anger often 23percent didn't get anger often and 30saus maybe they gets anger often

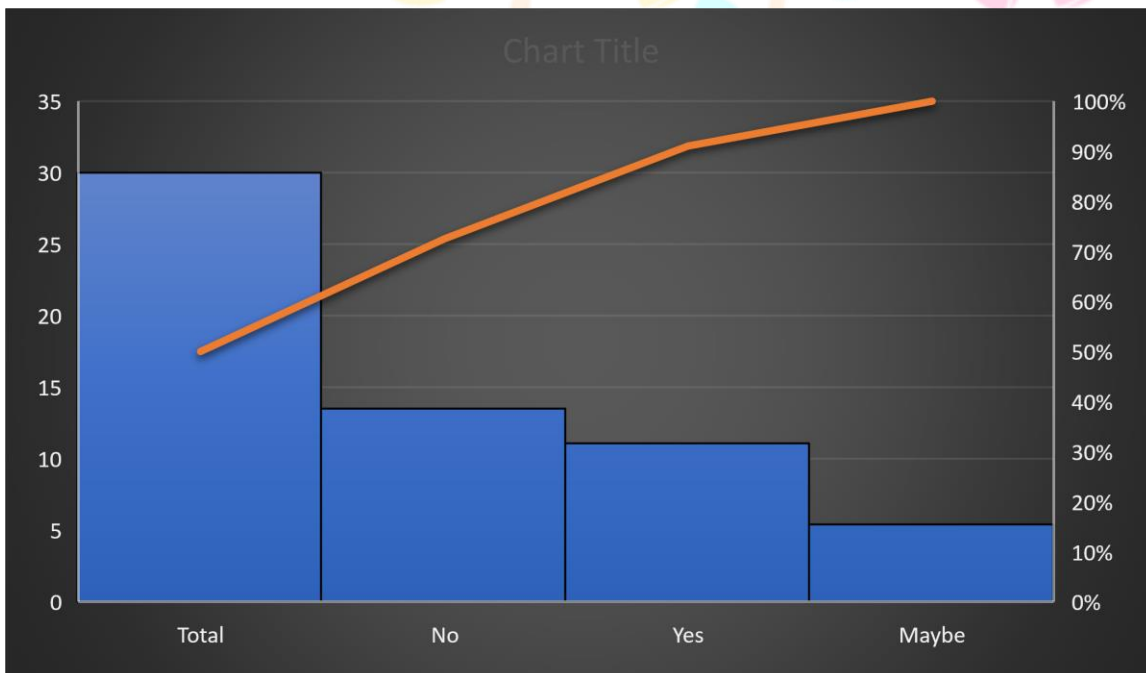**Majority of the respondents gets anger often**

Do you have obesity

S.No	Types	No. Of. Respondents	Percentage
1	**Yes**	**11.1**	**37%**
2	**No**	**13.5**	**44.8%**
3	**Maybe**	**5.4**	**18.2%**
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 37 percent is having obesity, 44percent is not having obesity and 18 percent says maybe they have

Majority of the respondents is not having obesity

Do you regularly take sugar pills with you

S.No	Types	No. Of. Respondents	Percentage
1	**Yes**	18	60%
2	**No**	6.9	23.3%
3	**Maybe**	5.1	16.7%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 60 percent of respondents takes sugar pills regularly, 23 percent didn't take any sugar pills

Majority of the respondents takes sugar pills
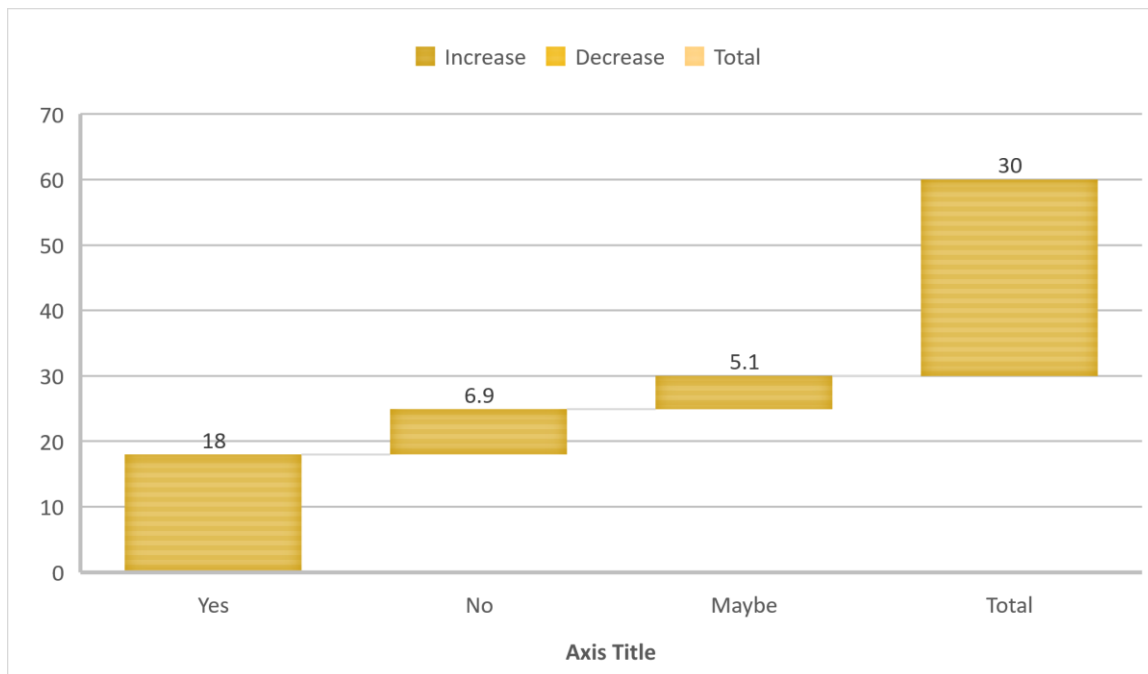
Have you had hyperglycaemia?

S.No	Types	No. Of. Respondents	Percentage
1	**Yes**	13	43.3
2	**No**	13	43.3
3	**Maybe**	4	13.3
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 43 percent had hyperglycemia, 43 percent didn't had hyperglycemia and 13 percent maybe they have hyperglycemia.

**Majority of the respondents is equal to have and have not hyperglucaemia.**
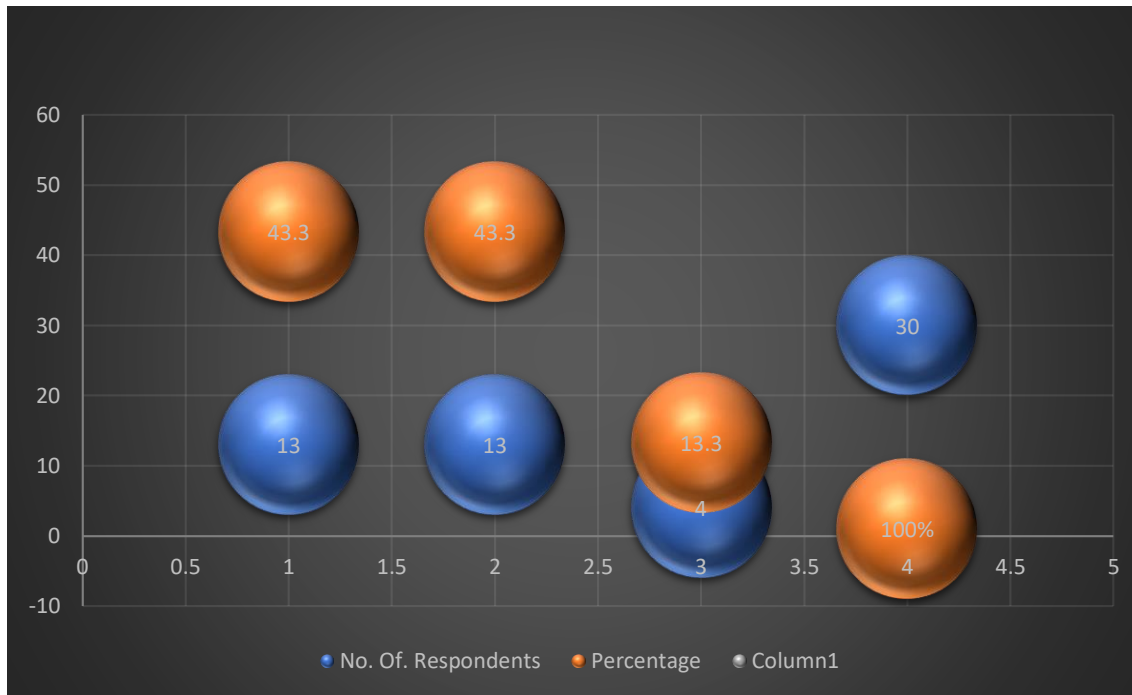
How often do you get hyperglycaemia?

S.No	Times	No. Of. Respondents	Percentage
1	**1-10**	**11**	**37%**
2	**11-20**	**1**	**3.7%**
3	**Often**	**2**	**7.4%**
4	**Don't know**	**16**	**51.9%**
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 37 percent Get hyperglycemia 1-10 times, 3.7 gets 11-20 times, 7.4 percent gets often and 16 don't know whether they got are not

Majority of the respondents don't know whether they got hyperglycemia are not
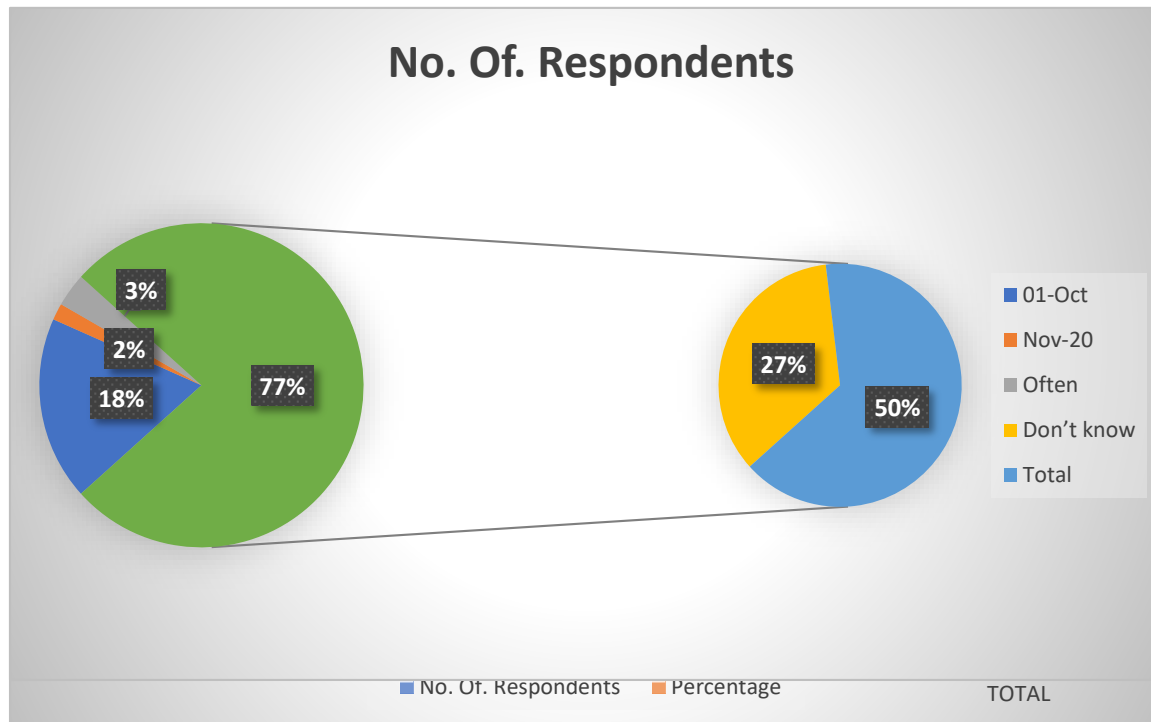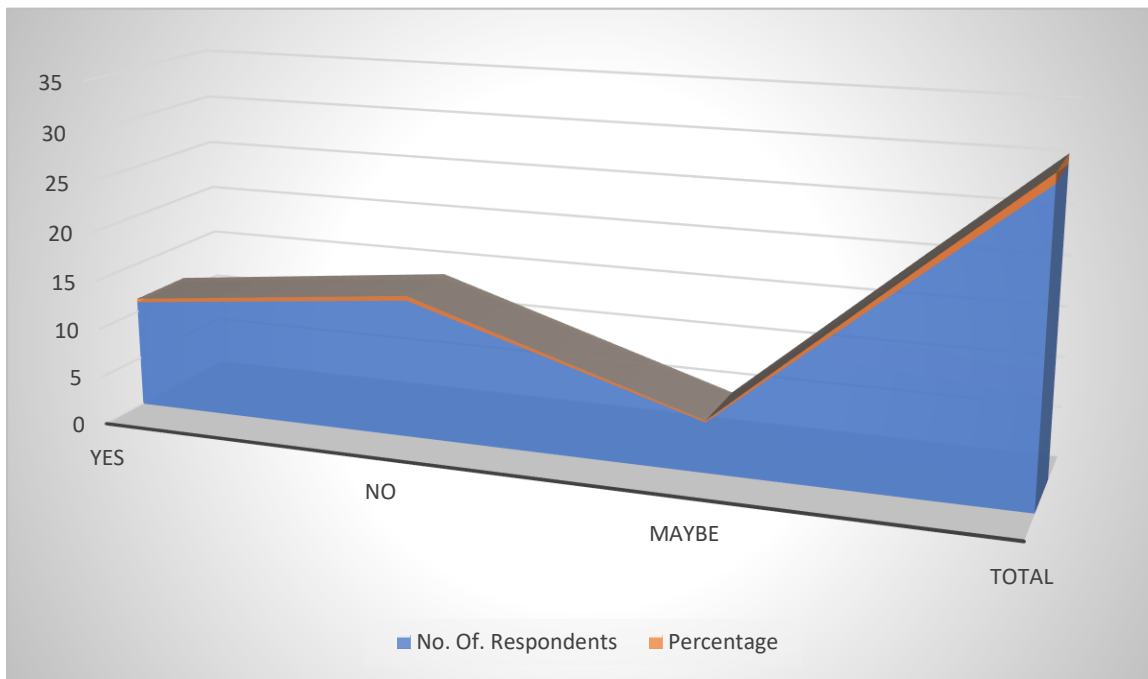

Do you exercise

S.No	Types	No. Of. Respondents	Percentage
1	**Yes**	11	36.7%
2	**No**	14	46.7%
3	**Maybe**	5	16.7%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 36 percent of respondents do exercise, 46 didn't do any exercise and 5 percent sometimes do some exercise

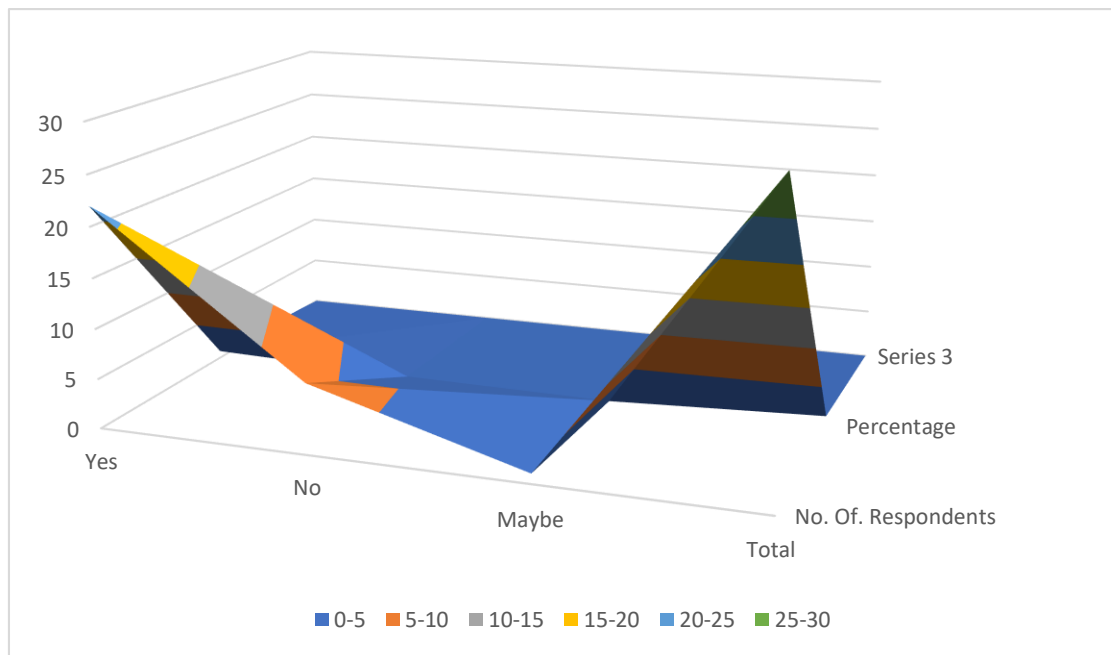**Majority of the respondents didn't do any exercise**

Do you follow diet

S.No	Types	No. Of. Respondents	Percentage
1	Yes	22	73.3%
2	No	7	23.3%
3	Maybe	1	3.4%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 73 percent of respondents follow diet, 23 percent is not following any diet and 3.4 percent choose maybe

Majority of the respondents follow diet.

Kind of food preference

S.No	Food	No. Of. Respondents	Percentage
1	Rice	9	30%
2	Wheat	17	56.7%
3	Green leaves	4	13.3%
4	Non veg	0	0%
	Total	30	100%

Interpretation

From the above table it is observed that 30 percent says rice is their food preference, 56percent says wheat is their preference, 13Percent says Green leaves is their preference and none of diabetes patient prefer Non veg.

## Majority of the respondents says wheat is their food preference
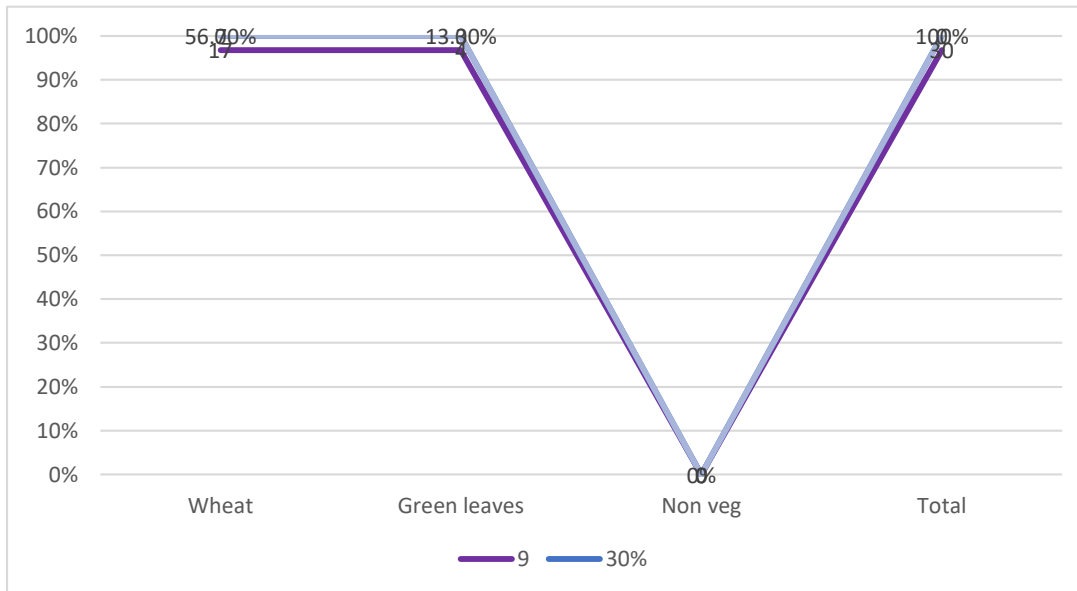
Do you skip meals

S.No	Types	No. Of. Respondents	Percentage
1	Yes	6	20%
2	No	21	70%
3	Maybe	3	10%
	Total	30	100%

Interpretation

From the above table it is observed that 20 percent of respondents skip meals, 70 percent won't skip meals and 10 percent may be miss in any unavoidable situation

**Majority of the respondents didn't skip their meals**
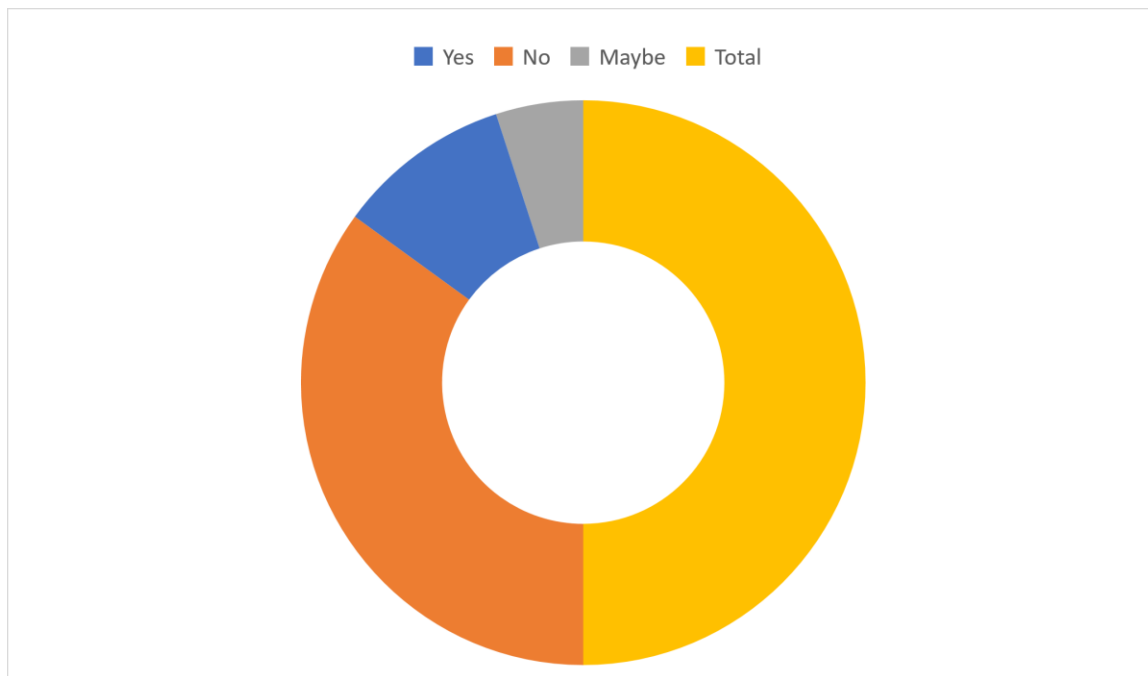
Do you feel weight loss?

S.No	Types	No. Of. Respondents	Percentage
1	**Yes**	13	44.8%
2	**No**	13	44.9%
3	**Maybe**	3	10%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 44 percent feel weight loss due to diabetes and 44 percent didn't feel any weight loss and 10Percent are not sure whether they lost or not

**Majority of the respondents didn't feel weight loss due to diabetes**
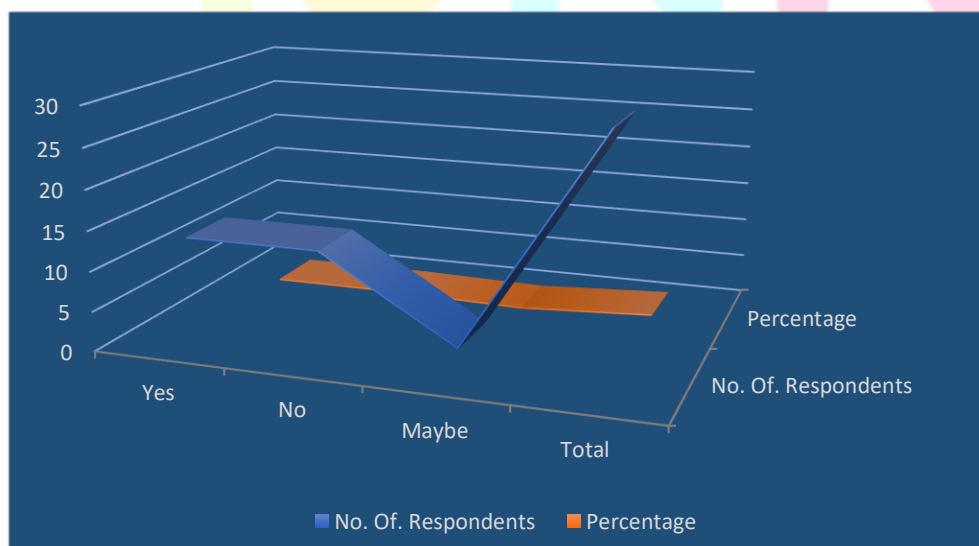
Does your diabetes cause any other problem?

S.No	Types	No. Of. Respondents	Percentage
1	Yes	7	23.3%
2	No	22	73.3%
3	Maybe	1	3.4%
	Total	**30**	**100%**

Interpretation

From the above table it is observed that 23 percent of respondents suffered from another problem because of diabetes and 73percent got no other problems and 3 percent are not sure

Majority of the respondents got no other problems because of diabetes
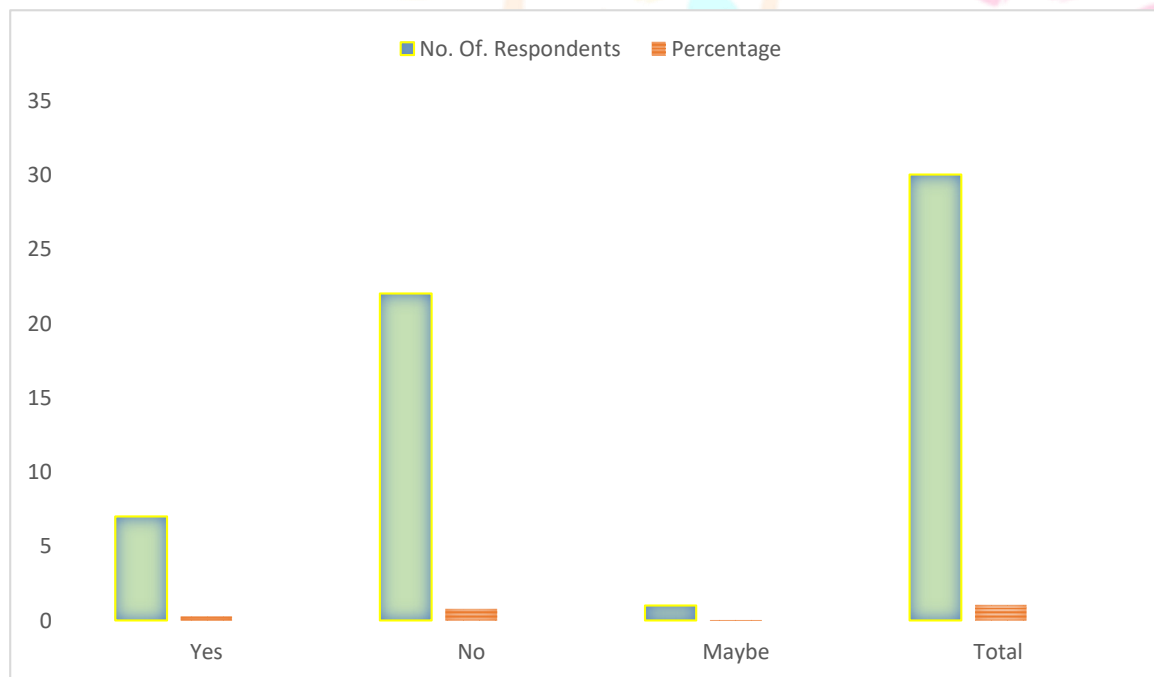
Findings and conclusion

Findings

Simple percentage Analysis

Thus it is interfered that majority of the respondents is having diabetes are from 51-60 years

- Majority of the respondents who is having diabetes is male
- Majority of the respondents who
- Majority of the respondents had secondary education.
- Majority of the respondents have diabetes for 1-5 years.
- Majority of the respondents have type 2 diabetes.

- Majority of the respondents have diabetes for 1-5 years.
- Majority are testing their glucose level once or twice a week.
- Majority of the respondents is having medium glucose Level.
- Majority of the respondents use no insulin.
- Majority of the respondents experienced low sugar.
- Majority of the respondents don't know how often they experienced low sugar.
- Majority of the respondents gets anger often.
- Majority of the respondents is not having obesity.
- Majority of the respondents takes sugar pills.
- Majority of the respondents is equal to have and have not hyperglycaemia.
- Majority of the respondents don't know whether they got hyperglycaemia are not.
- Majority of the respondents didn't do any exercise.
- Majority of the respondents follow diet.
- Majority of the respondents says wheat is their food preference.
- Majority of the respondents didn't skip their meals.
- Majority of the respondents didn't feel weight loss due to diabetes.
- Majority of the respondents got no other problems because of diabetes.

Conclusion

Diabetes mellitus is growing to epidemic proportions, leading to devastating complications if not treated well. There are many challenges in the successful treatment of diabetes mellitus because of personal and economic costs incurred in diabetes therapy. The Diabetes mellitus patients require reinforcement of Diabetes mellitus education including dietary management through stakeholders (health-care providers, health facilities, etc.) to encourage them to understand the disease management better, for more appropriate self-care and better quality of life. The overall purpose of treating Diabetes mellitus is to help the patients from developing early end-organ complications which can be achieved through proper dietary management. The success of dietary management requires that the health professionals should have an orientation about the cultural beliefs, thoughts, family, and communal networks of the patients. As diabetes is a disease which continues for the lifetime, proper therapy methods with special emphasis on diet should be given by the healthcare providers in a way to control the disease, reduce the symptoms, and prevent the appearance of the complications. The patients should also have good knowledge about the disease and diet, for this purpose, the health-care providers must inform the patients to make changes in their nutritional habits and food preparations. Active and effective dietary education may prevent the onset of diabetes and its complications. Diabetes can be prevented by lifestyle change. The challenge is to develop public health approaches to support individuals with respect to incorporating the lifestyle changes needed to reduce the risk of diabetes into their everyday life. Unfortunately, dietary habits in the developed and developing countries are changing towards an unhealthier direction. Consequently, emphasis should be given on encouraging at population and individual levels for adopting a healthier lifestyle, including dietary habits, to prevent the development of type 2 diabetes. Here we reviewed epidemiologic and clinical trial evidence

regarding nutrients, foods and dietary patterns to diabetes risk and involved possible mechanisms.

Type 2 diabetes is increasingly growing in young population of developing countries, which causes a large burden on individuals and the society.

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