A comparative study about lifestyle between placebo and control group of selected healthy volunteers of fitness in the Gymnastics, Municipal Corporation.

A project report submitted to the Daffodil International University, Dhaka.
For the fulfillment of the Nutrition & Food engineering

Submitted to
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Submitted by
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Date of Submission:

LETTER OF TRANSMITTAL

Date:

The Head

Department of Nutrition and Food Engineering (NFE)
Faculty of Allied Health Science
Daffodil International University
Subject: Submission of Project Work Report.

Dear Sir,

It is a great pleasure to submit my Project Report, as a partial requirement of the Program and a prerequisite for completion of the BSc. in Nutrition and Food Science Program.

Based on the knowledge and experience I obtained over my entire project, I wrote this report. I have the possibility to work at your university under Professor Dr. Bellal Hossain Associate Dean of the Faculty of Allied Health Sciences (FAHS)

As a result, I respectfully ask and expect that you would evaluate my report as soon as possible and honor me with any kind of advice or worthwhile proposal. As a result, I kindly request and anticipate that you will appreciate my recommendations and valuable suggestions and will accept this report for your thoughtful review in formal way. I shall be highly obliged if you are kind enough to accept this report and provide me your valuable judgment. It would be my immense pleasure if you find this report useful and informative to have an apparent perspective on the issue.

Thank you again for your support and patience.

Md. Shamiul Bashir Plabon
ID: 182-34-792
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CERTIFICATE OF APPROVAL

I am pleased to certify that the project work/thesis report on "**A comparative study about lifestyle between placebo and control group of selected healthy volunteers of fitness in the Gymnastics, Municipal Corporation."** driven by **Md. Shamiul Bashir Plabon** and **ID: 182-34-792**; Department of Nutrition and Food Engineering has been approved for presentation and defense/viva-voice.

I am glad to certify that the data and findings contained in the report are the result of Md. Shamiul Bashir Plabon's excellent effort. I heartily recommend Shamiul's report for further academic recommendations and defense/viva voce. Shamiul has a lovely demeanor and a great moral character. Working with him has been a real pleasure. I wish him the best of luck in life.

Supervised by
Dr. Bellal Hossain
Professor and Associate Dean
Faculty of Allied Health Science (FAHS)
Daffodil International University

ACKNOWLEDGEMENTS

First of all, my gratitude's and thanks go to the Almighty Allah, the most merciful and the kind who has blessed me with the ability to make this work successful. I would like to say thanks to the Honorable Vice Chancellor of Daffodil International University (DIU) for extending me this opportunity to pursue my BSc. Degree in Nutrition and Food Engineering (NFE) Department.

My deep gratitude and sincere thanks to Professor **Dr. Ahmad Ismail Mustafa**, the Honorable Dean, Professor **Dr. Bellal Hossain** the Associate Dean, Faculty of Allied Health Sciences (FAHS); and Assistant Professor **Ms. Fouzia Akter** the Head, Department of Nutrition and Food Engineering (NFE), for their kind cooperation and encouragement to assign and accept this Internship Report. My deep and sincere appreciation to Professor **Dr. Bellal Hossain** the Associate Dean, Faculty of Allied Health Sciences (FAHS); for his constructive suggestions, effortless guidance and continuous support throughout my project work which has helped me immensely to complete this work successfully.

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My warmest thanks to our Coordination Officer **Mr. Emran Hossain**, Assistant Technical Officer **Mr. Reaz Mahmood** and Assistant Officer **Mr. Elahi Box**. My gratitude goes to the entire NFE Department of Daffodil International University for arranging this research opportunity and facilitating the work throughout.

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Abstract

The primary purpose of the study is to compare the lifestyles (daily habits) of selected placebo individuals who are not going to gym with those of control participants who engage in gymnastics in Dhaka City. Because NCD risk is increased by an unhealthy lifestyle. The study found that, out of 200 participants, half (100) reported being placebo and the other half (100) reported being physically active and frequent gym goers. According to their daily habits and lifestyles, they were all from Dhaka city and ranged in age from 20 to 50. I collected data between 22 June and 10 August 2022. The entire research concentrates on how the majority of urban residents of our nation actually live their everyday lives, including a comparison of those who are physically inactive or sedentary and those who are physically active and frequently visit the gym. According to responses from placebo or sedentary people who were unaware of health issues, their BMI categorized into three categories: underweight (BMI 18.5) 20%, normal weight (BMI 18.5–24.9) 48%, and overweight (BMI 25–29.9) 32%. However, those who frequently visited the gym had BMIs that fell into the categories of normal weight (BMI 18.5–24.9) 78%, overweight (BMI 25–29.9%) 20%, and obese class 1 (BMI>30) 2%. People are not going to gym with unhealthy habits most of them wake up late morning 5-6am 16%, 6-7am 18%, 7-8am 8%, 8-9am 10%, 9-10am 30% and 10-11am 18% also they have a huge quantity those are smoker 40% and alcoholic 30%. But people frequent in gym less of them are smoker 24% and alcoholic 8%. Physically inactive people most of them were depressed 48% and people physically active among less individuals have depression 16%. Both group of people have basic knowledge about NCDs 56% and 86% but according to the study a huge number of people whom were living unhealthy life with physical inactivity 44% of them are unaware about NCDs while less of people physically active 14% were unaware about NCDs. Physically inactive group less among them have NCDs like asthma 4% and high blood pressure 4%. Meanwhile people physically active respondents among them less have diabetic 2% and high blood pressure 2%. Highest number of the sources of bodybuilding foods were meat, fish, egg and poultry 76% and 78%. The percentage of the sources of vitamin rich foods 78% and 54% fruits and vegetables, meat, fish, egg, poultry and milk & milk products, pulses and legumes were answered by (8,8,2%) and (10,12,12%). The highest number of protective foods that were selected by respondents' fruits and vegetables 66% and 46%.

Keywords: *BMI*, *NCDs*, *Lifestyle (daily habits)*, *physical activity*, *high blood pressure*, *diabetic*, *asthma*,

CHAPTER 1

1.1 Introduction

A healthy lifestyle reduces the risk of developing life-threatening illnesses or passing away too soon. Not all diseases may be prevented, but many mortality can be avoided, especially those caused by coronary heart disease, diabetics and lung cancer.

In general, unhealthy life choices including not burning calories, eating unhealthy, smoking, and drinking alcohol all contribute to an increased chance of developing NCDs. Morbidity and mortality are significantly impacted by unhealthy lifestyle choices. The pract ice of empowering individuals to assume more control over their health and the factors that influence it is known as health promotion. Interventions aimed at altering lifestyle choices are also necessary.

A majority of NCDs include one or more developing risk factors in common, which are all somewhat influenced by lifestyle. These risk factors include smoking, hypertension, hyperglycemia, obesity, physical inactivity, and poor nutrition. Leading a healthy lifestyle (HL) is crucial for preventing, controlling, or even reversing the abovementioned modifiable risk factors. [1]
In large part, prevention, control, or even reversal of the aforementioned modifiable risk factors are realized through leading a healthy lifestyle (HL). The challenge is how to initiate the global change, not toward increasing documentation of the scope of the problem but toward true action—creating, implementing, and sustaining HL initiatives that will result in positive, measurable changes in the previously defined poor health metrics. [2]

The intake of meat, sweets, fats, and highly processed foods has dramatically increased during the past few decades. On the other side, people are eating less fiber-rich foods including whole grains, lentils, and roots. This process, known as the "nutrition transition," is brought on by urbanization, globalization, and the growth of a food industry that creates cheaper, less-nutritious food. NCDs can be avoided by leading a healthy lifestyle that includes regular exercise and a nutritious diet. By heeding the following advice, this is simple and doable:

- Quit smoking and stay away from smoking environments
- Avoid drinking alcohol.
- Try to be physically active.
- Keep monitoring your weight (gain or loss).
- Eat more fruits, veggies, whole grains, and nuts while cutting back on red meat and dairy items to try to adopt a plant-based diet.
- Reduce your consumption of junk food and processed foods and increase your consumption of freshly prepared meals at home. [3]

1.2 Risk Factors:

Unhealthy diets and physical inactivity are amongst the main risk factors of NCDs. They raise blood pressure, increase blood glucose, elevate blood lipids and lead to obesity.

1.3 Justification of the study

Physical activity plays a fundamental role in balancing energy and weight control.
The WHO states that regular physical activity has a number of advantages for mental and physical health. Physical activity is crucial for preventing non-communicable diseases at all stages of life. Major non-communicable illnesses and physical activity are strongly correlated. [4]

World Health Organization, the first indicator of health is physical activity at the community level. According to the WHO, 3.2 million deaths worldwide occur each year as a result of physical inactivity. The sedentary lifestyle is the primary contributor to the rising mortality rate worldwide. [1]
Through regular physical activity, the risk of numerous chronic diseases, including cancer, cardiovascular disease, and type 2 diabetes, is reduced.

However people are unable to obtain accurate advice from Nutritionist/Lifestyle modifier. Even if majority of people are living an unhealthy lifestyle going through bad food habits that occur basically in urban area.

1.4 Operational Definition

Healthy Lifestyle:

A healthy lifestyle reduces the risk of developing life-threatening illnesses or passing away too soon. Not all diseases may be prevented, but many mortality can be avoided, especially those caused by coronary heart disease, diabetics and lung cancer.

Impact of lifestyle on health:

An unhealthy lifestyle can contribute to issues including metabolic disorders, joint and bone issues, cardio-vascular diseases, hypertension, obesity, violence, and more. The link between lifestyle and health needs to be carefully considered. Today, there have been significant changes in everyone's lives. [5]

DASH Diet:

DASH stands for Dietary Approaches to Stop Hypertension. The DASH diet is a healthy-eating plan designed to help treat or prevent high blood pressure (hypertension).

The following features of the DASH diet:

- ✓ Saturated fat-free.
- ✓ A low cholesterol diet.
- ✓ Lower total fat.
- ✓ Plentiful in vegetables and fruits.
- ✓ Rich in dairy products with low fat.
- ✓ Rich in wholegrain foods or dietary fiber.
- ✓ Consists of nuts, chicken, and fish.
- ✓ Low in sweets, red meat, and beverages with added sugar. [5]

NCDs:

The term "NCDs" refers to a set of ailments that are not primarily brought on by an acute infection, have an impact on long-term health, and frequently necessitate ongoing care and treatment. Cancers, cardiovascular disease, diabetes, and chronic lung problems are some of these conditions. [5]

Cardiovascular Disease:

Heart and blood vessel disease — also called heart disease — includes numerous problems, many of which are related to a process called atherosclerosis. Atherosclerosis is a condition that develops when a substance called plaque builds up in the walls of the arteries. This buildup narrows the arteries, making it harder for blood to flow through. If a blood clot forms, it can stop the blood flow. This can cause a heart attack or stroke.

Diabetes:

Diabetes is a chronic (long-lasting) health condition that affects how your body turns food into energy. Your body breaks down most of the food you eat into sugar (glucose) and releases it into your bloodstream. When your blood sugar goes up, it signals your pancreas to release insulin.

Chronic lung disease:

Chronic lung disease may be caused by smoking tobacco or by breathing in secondhand tobacco smoke, chemical fumes, dust, or other forms of air pollution. Types of chronic lung

disease include asthma, chronic obstructive pulmonary disease (COPD), pulmonary fibrosis, asbestosis, pneumonitis, and other lung conditions.

Exercise:

Exercise is a part of a healthy lifestyle that is used to treat general health issues. Continuous exercise and a nutritious diet improve health. Some research emphasize the link between an active lifestyle and happiness. [6]

Diet and Body Mass Index (BMI):

Diet is the biggest lifestyle aspect that directly and favorably affects with health. In urban societies, a poor diet and its effects, such as obesity, are a prevalent health issue. BMI can be used to determine an unhealthy lifestyle. Urban living causes nutrition issues such eating fast food and unhealthy foods, which increases illnesses like cardiovascular. [6]

1.5 Research Question

1. What is a comparative study about lifestyle between placebo and control group of selected healthy volunteers of fitness in the Gymnastics, Municipal Corporation?

2. What people thinking about lifestyle modification and NCDSs?

3. What are the source of food for Human Body?

1.6 Objectives:

The study's goal is to compare healthy habits (lifestyle) among urban residents who are physically inactive and those who go to gym (who are physically active), as an unhealthy lifestyle increases the risk of NCDs.

1.7 Specific Objectives:

- to have access to the interviewer's anthropometric knowledge
- to learn detail about peoples lifestyle habit
- to learn well about people's food histories
- To categorize the respondents' eating habits

1.8 Acronyms

WHO: World Health Organization

BMI: Body Mass Index

NCDs: Non-communicable disease

HL: Healthy lifestyle

DASH: Dietary Approaches to Stop Hypertension.

CHAPTER 2

Literature Review:

Lifestyle has long been associated with the development of many chronic diseases. According to the WHO, the main non-communicable diseases are diabetes, cardiovascular disease, stroke, cancer, and chronic obstructive pulmonary disease (COPD) (NCDs). These serious NCDs have similar lifestyle-related risk factors, such as physical inactivity, poor diet, cigarette use, and alcohol abuse. The current situation of NCDs is the primary cause of illness and mortality worldwide. They are responsible for over 60% of fatalities and 47% of the global illness burden, per the WHO Report 2004. In the majority of developing nations, NCD epidemics are now developing or escalating. According to the WHO, 53% of deaths in India occurred as a result of NCDs in 2008, while cardiovascular disease (CVDs) alone are responsible for 24% of fatalities. [1]

By addressing the risk factors that are related to lifestyle and are therefore modifiable, these main NCDs can be substantially avoided with appropriate interventions. This overview covers the current situation of NCDs, their effects on socioeconomic development and health, the danger posed by rising disease burden trends and socio demographic change, and the difficulties that must be overcome for the prevention and control of NCDs. [4]

Non communicable diseases (NCDs) account for as much as 70% of all deaths globally. The four main NCDs are cardiovascular diseases (CVDs), cancers, chronic pulmonary diseases, and diabetes mellitus (DM), which all share the same behavioral risk factors: physical inactivity, unhealthy diet, tobacco use, and harmful use of alcohol. Lifestyle changes toward a more healthy behavior are of great importance in both prevention and treatment of these NCDs. [7]
The most significant modifiable element that affects treatment outcome is adherence to the prescribed course of action. The World Health Organization (WHO) defines adherence as "the amount to which the patient follows medical instructions". Historically, adherence has been centered on medication. Adherence also includes a variety of health-related behaviors, such as quitting smoking and altering one's physical activity (PA), exercise routine, or nutrition, all of which are thought to be particularly difficult to treat NCDs. The majority of systematic reviews have thoroughly shown the short-term effectiveness of interventions intended to promote healthy behavior when they are delivered face-to-face. One reason of the inconclusive long-term results are probably lack of systematic follow-up and monitoring, which are crucial elements of all effective health behavior change. [2]

The effectiveness of behavioral economics tactics that can be used to influence public health Initiatives to combat non-communicable diseases (NCDs) such as excessive eating, drinking, smoking, and inactivity is still being studied. The review's objective is to investigate the data about the application and efficiency of behavioral economics insights in lowering NCDs lifestyle risk factors. [2]

CHAPTER 3

3.1 Materials

SN.	Equipment s	Purpose
1.	Paper	To designing a questionnaire
2.	SPSS	Analyzing the data
3.	Computer	To write a report
5.	Fund	Making a presentation
		Creating a comprehensive report with the help of software

3.2 Methodological Approach

Location of study:

Despite the fact of my entire study tagline was "A comparative study about lifestyle between placebo and control group of selected healthy volunteers of fitness in the Gymnastics, Municipal Corporation." I used three methods to acquire information:

1. I acquired information by visiting third space gym
2. And by paying a visit to their home and university selected students
3. A little portion of data set acquired through phone call.

Study design:

The study, which was comparative in nature, involved people in the city of Dhaka. Personal interviews with each respondent are used to gather data for this study, which is then accompanied by a questionnaire and, in certain cases, phone calls. Additionally, the nature of the data collection was two-sectional, with one set (100) of information acquired from a group of people whom are physically inactive and another set (100) of data that comes from participants who are physically active and frequent the gym.

Study population:

Study was based on "A comparative study about lifestyle between placebo and control group of selected healthy volunteers of fitness in the Gymnastics, Municipal Corporation."

Study period:

March 2022 to August 2022.

Data collection period:

22th June 2022 to 10th August 2022.

Sample size calculation:

$$\text{Sample size} = \frac{\frac{z^2 \times P(1-P)}{e^2}}{1+\left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

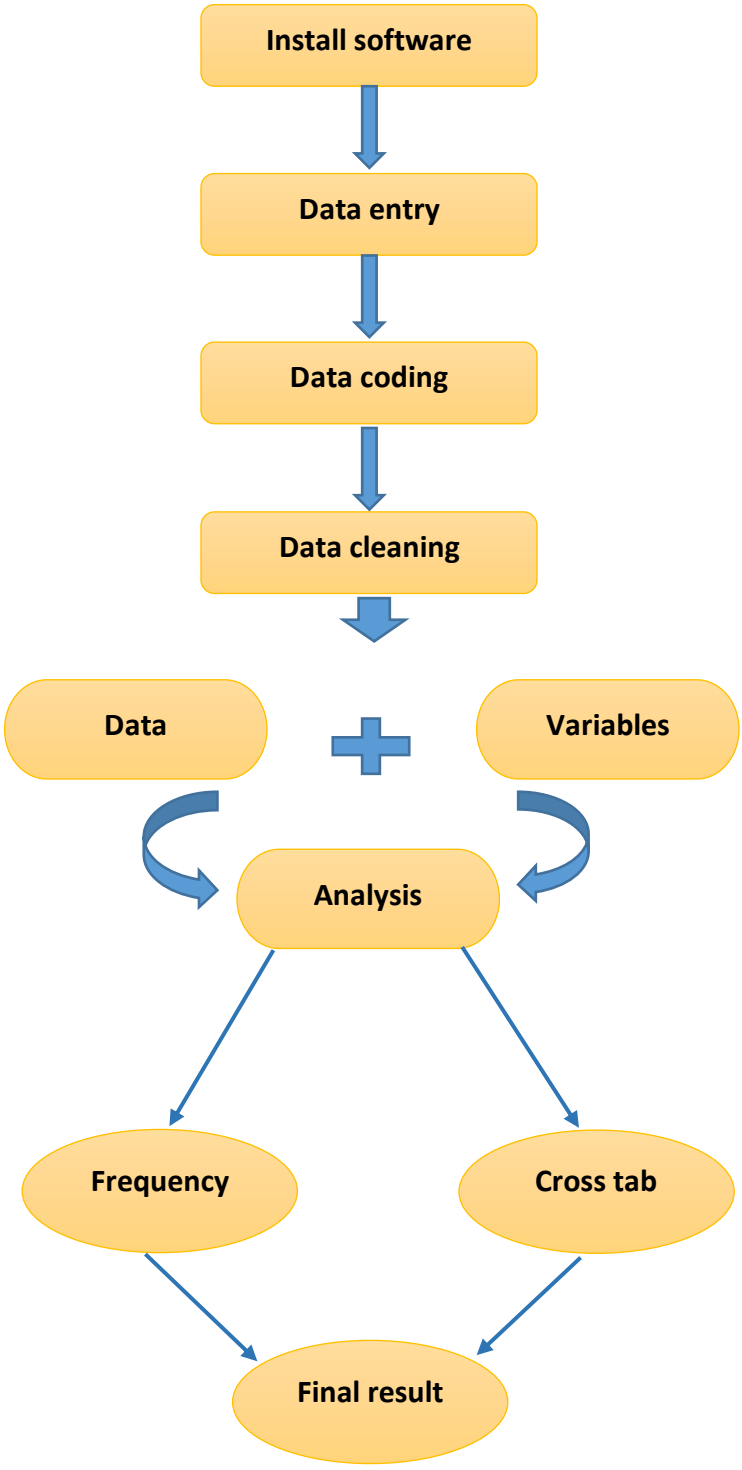
Data collection method:

- I primarily utilize the printed questionnaire form.
- I spoke in the native tongue to some of the people.
- Prior to data collection, I conversed with the respondents to better understand their questions.
- I handed each respondent 10 to 15 mints.
- All of the responses were recorded into a data form.
- The information was collected with their consent

3.3 Data analysis process:

I used the statistical program SPSS for data analysis. It is possible to do statistical analyses in batches or in real time using SPSS Statistics, a statistical analysis program. It was developed for a long time by SPSS Inc. before IBM acquired it in 2009. I adopted IBM Version 26.

Working procedure:



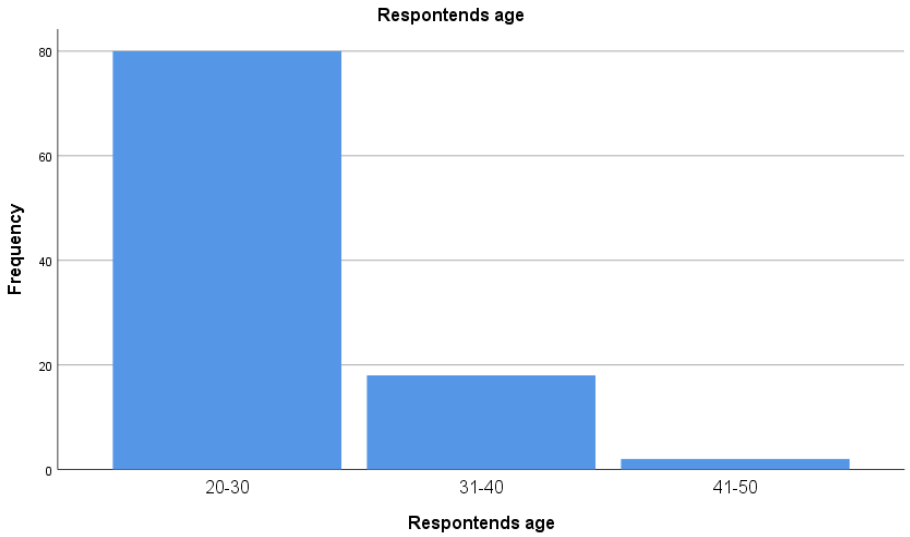
CHAPTER 4

Result

1. Background information

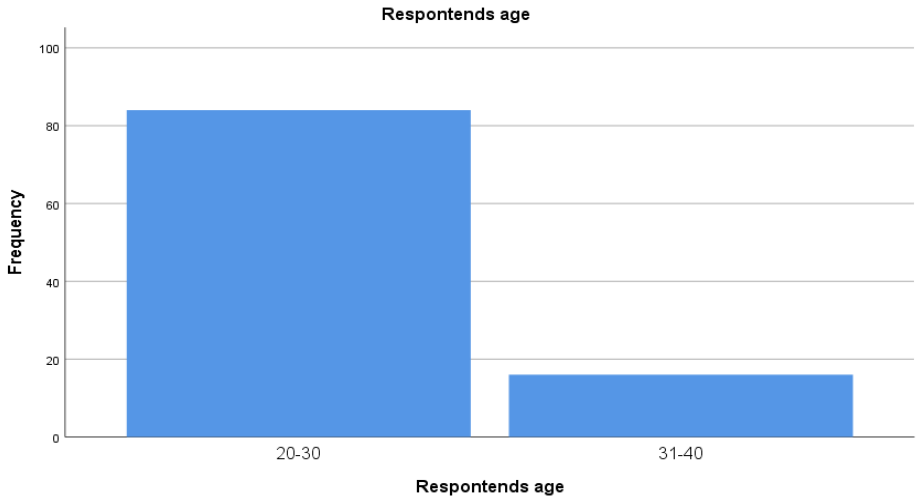
1.1 Age

Chart 1.1.1(physically inactive group)



Participants ranged in 20 to 50. Majority of them are between 20 to 30 ages 80% and between ages 31 to 40 ages 18% and 41 to 50 ages 2%.

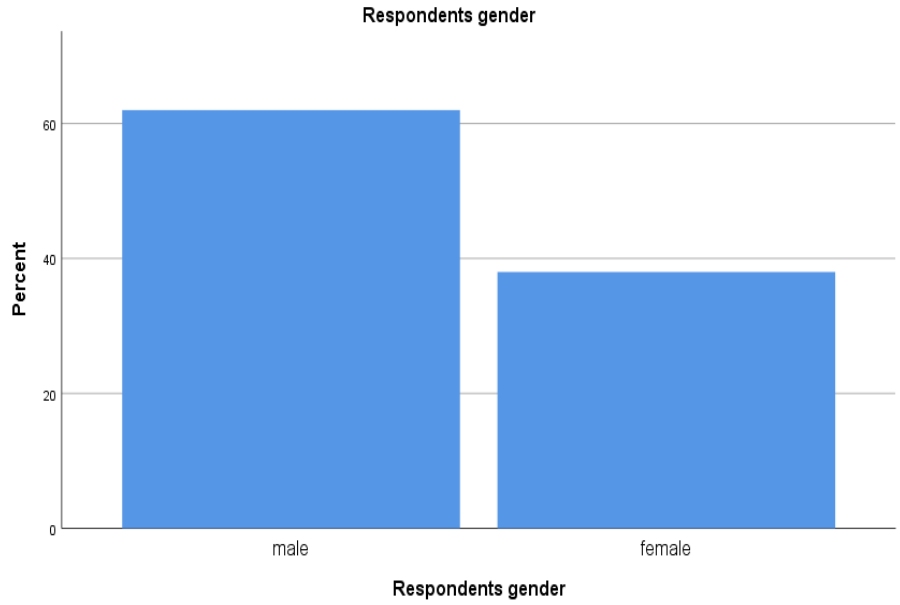
Chart 1.1.2 (physically active group)



Majority of the participants are between 20 to 30 ages 84% and between ages 31 to 40 16%. Here participants between 41 to 50 ages are missing.

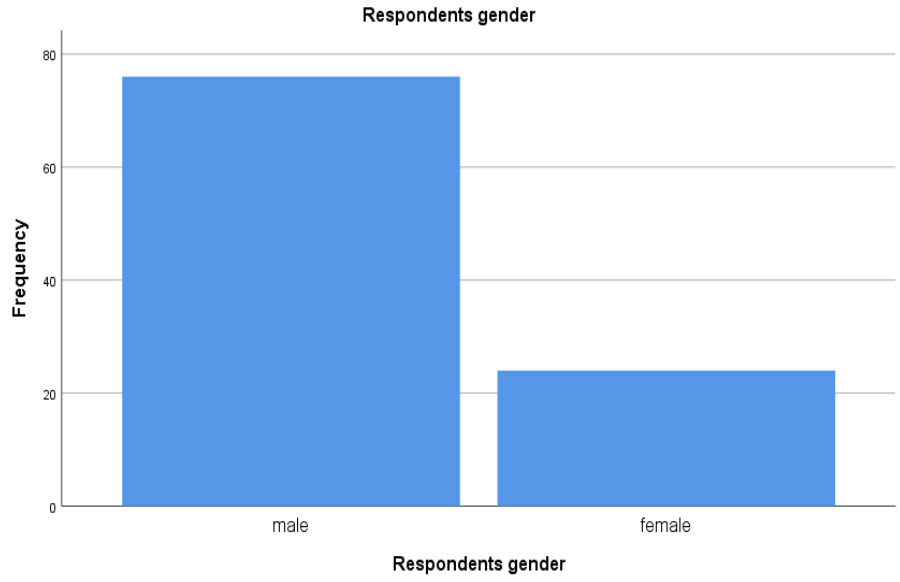
1.2 Respondents Gender

Chart 1.2.1 (physically inactive group)



Out of 100 respondents 62% were male and 32 % were female that means number of respondents 62 male and 32 female.

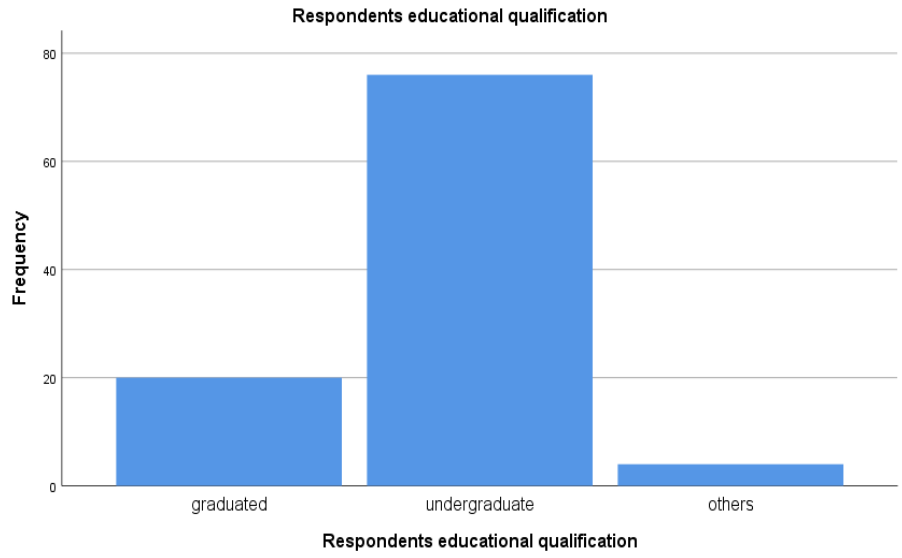
Chart 1.2.2 (physically active group)



Here out of 100 respondents 76% were male and 24% were female that means the number of respondents 76 male and 24 female.

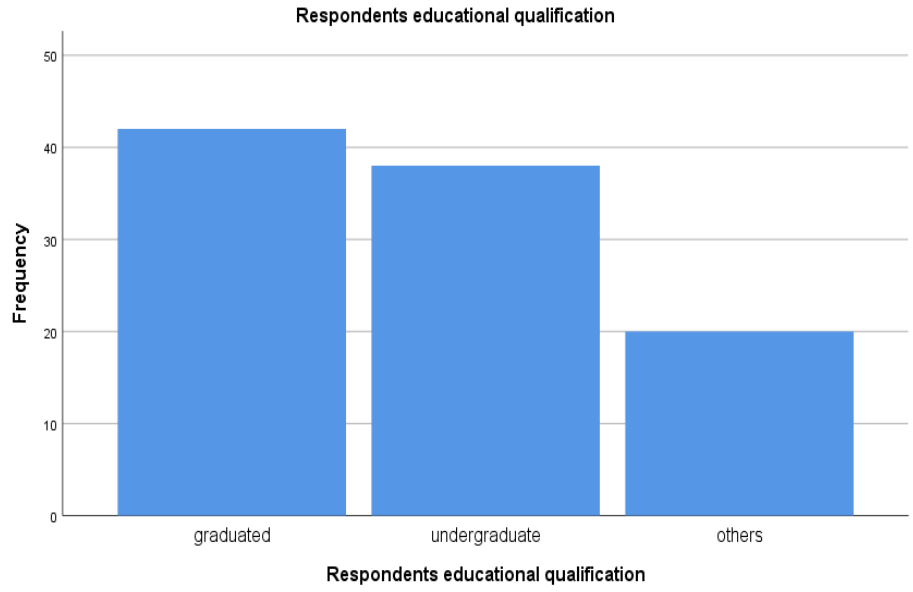
1.3 Education

Chart 1.3.1(physically inactive group)



Basically majority of the respondents were undergraduate 76% and some of them graduated 20% and less of them were others means SSC, HSC, B.Com 4%.

Chart 1.3.2 (physically active group)

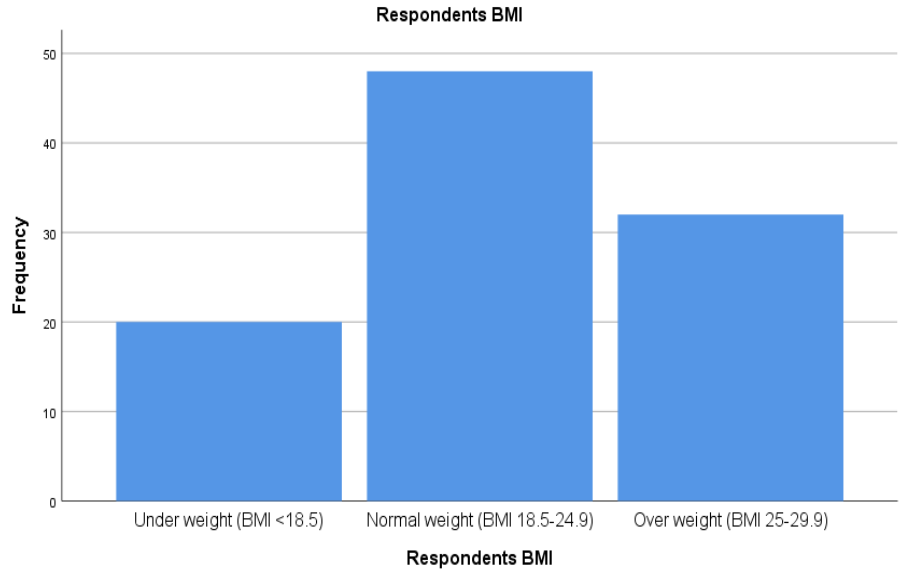


Here from physically active people gym goers' majority of them were graduated 42%, some of them were undergraduate 38% and less people 20% were SSC, HSC, B.Com

2. Anthropometric measurement

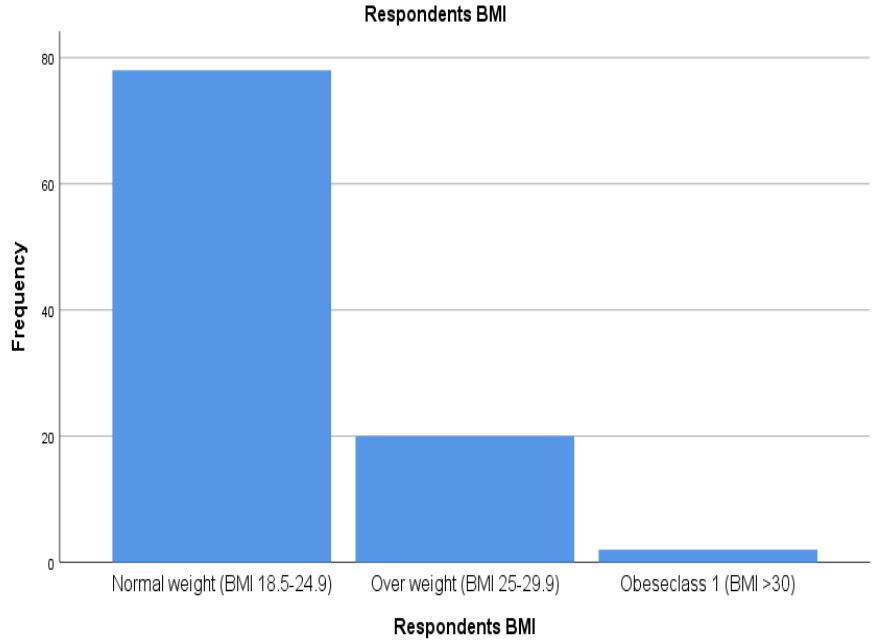
2.1 BMI

Chart 2.1.1 (physically inactive group)



Here out of 100 participants whom are living unhealthy lifestyle, physically inactive among them 20% were underweight, 48% people had normal weight and some of them were overweight 32%

Chart 2.1.2 (physically active group)

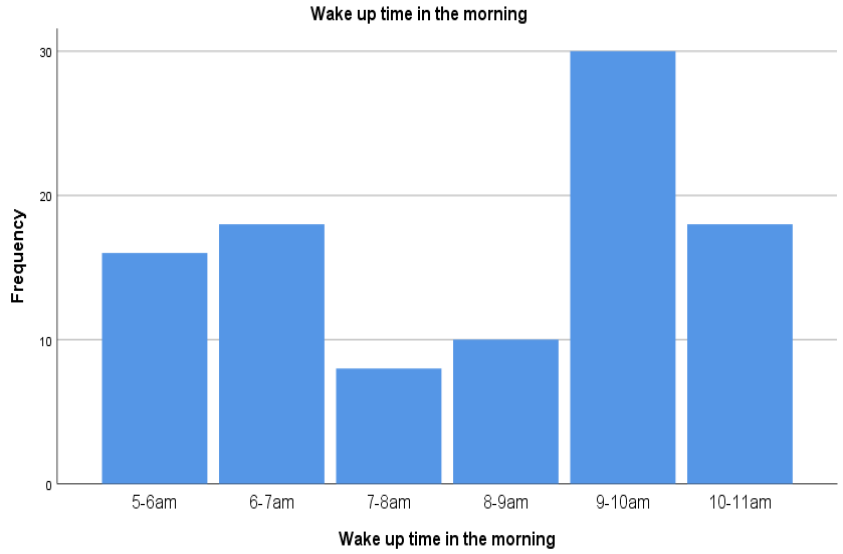


Meanwhile people physically active, living a healthy life and frequent in gym 100 participants majority of them had normal weight 78% and some of them gained overweight 20% and a less 2% obese class 1 people.

3. Information about lifestyle (daily habits)

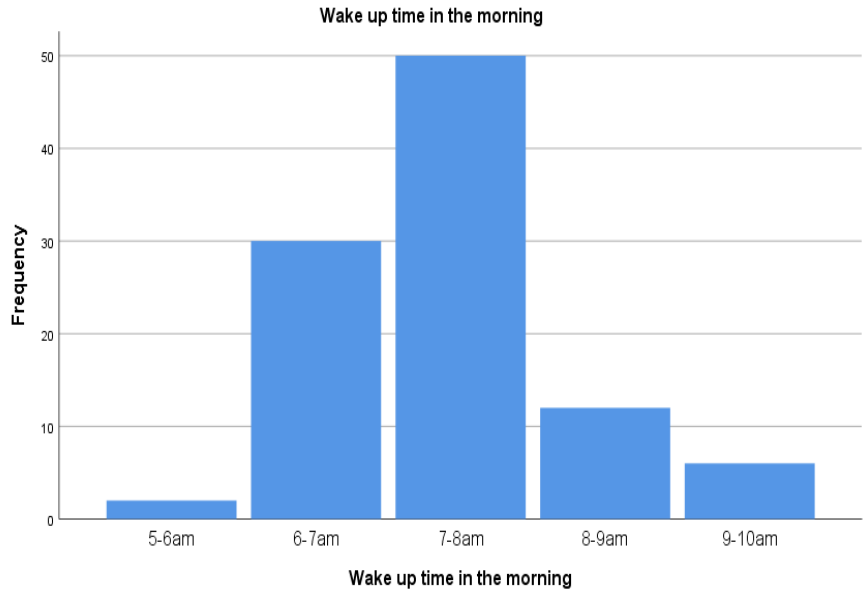
3.1 Wake up time in the morning

Chart 3.1.1 (physically inactive group)



Here out of 100 respondents 16% people wake up 5-6 am, 18% people wake up 6-7am, 8% people 7-8, 10% 8-9am and the majority of people 30% wake up between 9-10 am that's not actually a good practice and 18% of them wake up between 10-11 am poor practice.

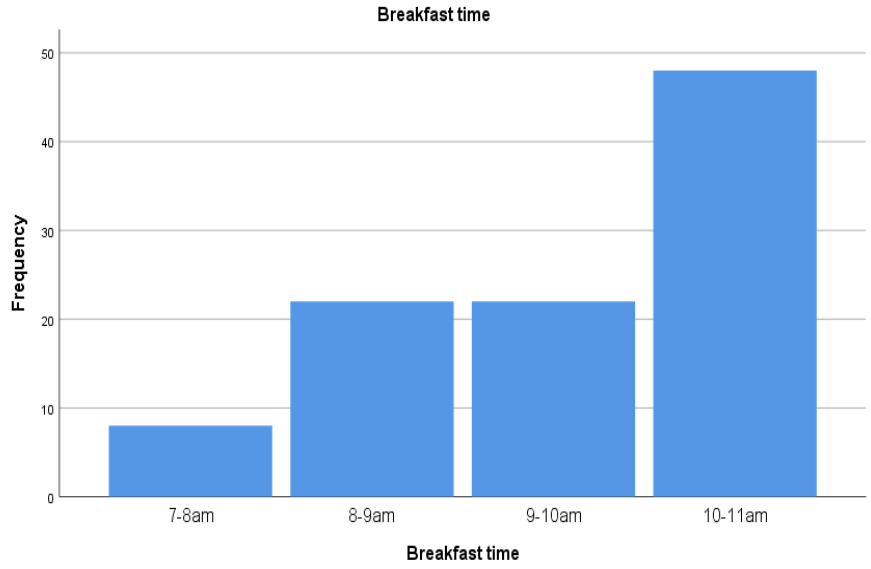
Chart 3.1.2 (physically active group)



Here majority of people 50% wake up between 7-8 am in the morning this also a good practice. And some of them 30% wake up 6-7am further good practice, a less people 2% wake up very early morning 5-6am and 12% people wake up 8-9am, 6% 9-19 am

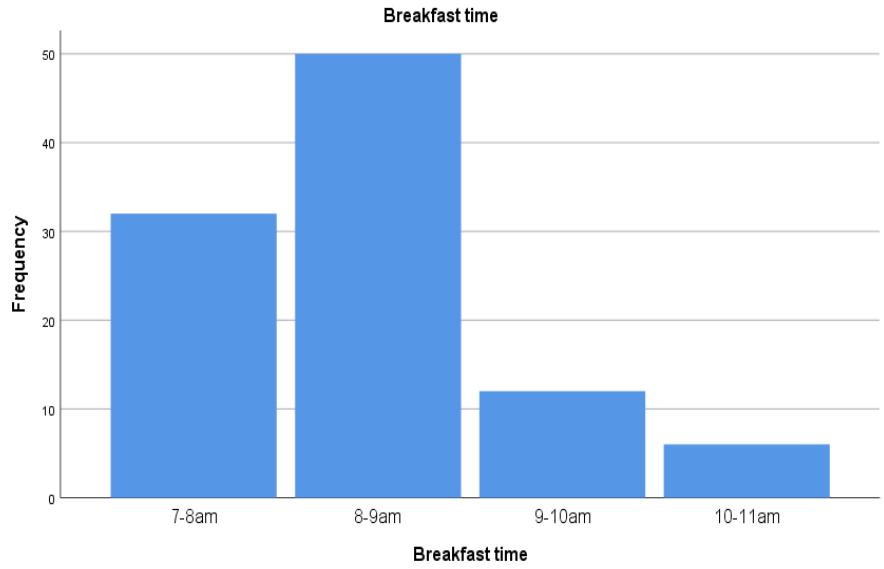
3.2 Breakfast time

Chart 3.2.1 (physically inactive group)



Here chart is showing what time participants take their breakfast majority of them 48% at 10-11 am that's not actually good practice and 22% 9-10am, 22% 8-9am, 8% of people take breakfast at 7-8am less people are passing through good habits.

Chart 3.2.2 (physically active group)



Meanwhile physically active people among them 32% take breakfast 7-8am majority of them 50% take breakfast between 8-9 am they are health concern with good practice and less of hem 12% 9-10am and 6% 10-11am.

3.3 Jogging in the morning

Table 3.3.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	20	20.0	20.0
	no	80	80.0	80.0
	Total	100	100.0	100.0

Table 3.3.1 is showing that people whom are physically inactive but less of them also jogging in the morning 20% said yes and majority of them 80% said no they don't jogging or exercise in the morning.

Table 3.3.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	yes	46	46.0	46.0
	no	54	54.0	54.0
	Total	100	100.0	100.0

Table 3.3.2 is showing those who are physically active and frequent in gym majority of them 54% said no they don't jogging in the Moring they do exercise in gym but most of them said yes 46% they do jogging along with their exercise frequently in gym.

3.4 Do you feel weak at noon or in the afternoon?

Table 3.4.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	48	48.0	48.0
	no	52	52.0	52.0
	Total	100	100.0	100.0

Table 3.4.1 is showing out of 100 respondents most of the people 48% said yes they feel weak at noon/afternoon because of their bad practice and 52% said no.

Table 3.4.2 (physically active people)

		Frequency	Percent	Valid Percent
Valid	yes	6	6.0	6.0
	no	94	94.0	94.0
	Total	100	100.0	100.0

Table 3.4.2 is showing out of 100 respondents whom are frequent in gym majority of them 94% said no they don't feel weak at noon or afternoon because of their daily physical activity their stamina got high. Less of them 6% people said yes.

3.5 When do you take lunch?

Table 3.5.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	12-1pm	4	4.0	4.0
	1-2pm	40	40.0	40.0
	2-3pm	56	56.0	56.0
	Total	100	100.0	100.0

Table 3.5.1 is showing out of 100 respondent's majority of them 56% take lunch between 2-3pm that's average practice but ideal time between 1-2apm where 40% people take ideal time and 4% of them take lunch 12-1pm.

Table 3.5.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	1-2pm	80	80.0	80.0
	2-3pm	20	20.0	20.0
	Total	100	100.0	100.0

Table 3.5.2 is showing out of 100 respondents whom are frequent in gym and health concern majority of them 80% take lunch in just ideal time between 1-2pm and less of them 20% take lunch between 2-3pm.

3.6 Eat fast food

Table 3.6.1 (physically inactive people)

		Frequency	Percent	Valid Percent
Valid	yes	86	86.0	86.0
	no	14	14.0	14.0
	Total	100	100.0	100.0

Table 3.6.1 is showing that those physically inactive people most of them 86% said they eat fast food/junk food. Less of them 14% people said no.

Table 3.6.2 (physically active people)

		Frequency	Percent	Valid Percent
Valid	yes	58	58.0	58.0
	no	42	42.0	42.0
	Total	100	100.0	100.0

Table 3.6.2 is showing most of them 42% said no who are frequent in gym and physically active they don't eat fast food but average people said yes 58% they eat fast food frequently. That's urban people's common thing.

3.7 Smoking habit

Table 3.7.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	44	44.0	44.0
	no	56	56.0	56.0
	Total	100	100.0	100.0

Table 3.7.1 is showing an average result out of 100 respondents 56% of them said no and 44% of them said yes. This is basically a common scenario for every countries resident.

Table 3.7.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	yes	24	24.0	24.0
	no	76	76.0	76.0
	Total	100	100.0	100.0

Table 3.7.2 is showing that people those are physically active and gym goers much concern about health majority of them 76% said no they don't smoke and 24% people said yes. For health concern people this is reverse compare to bad practice.

3.8 Alcoholic

Table 3.8.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	30	30.0	30.0
	no	70	70.0	70.0
	Total	100	100.0	100.0

Table 3.8.1 is showing out of 100 respondents less of them said yes 30% they are alcoholic but majority of them said no 70% they are not alcoholic just because of our cultural practice.

Table 3.8.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	yes	8	8.0	8.0
	no	92	92.0	92.0
	Total	100	100.0	100.0

Table 3.8.2 is showing whom physically active and gym goers much concern about health majority of them said no 92% they are not alcoholic but less of them said yes 8% people are alcoholic.

3.9 Snack in the afternoon/evening

Table 3.9.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	86	86.0	86.0
	no	14	14.0	14.0
	Total	100	100.0	100.0

Table 3.9.1 is showing out of 100 respondents 86% said yes they have snack in the afternoon and less of them 14% said no they don't.

Table 3.9.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	yes	96	96.0	96.0
	no	4	4.0	4.0
	Total	100	100.0	100.0

Table 3.9.2 is showing that out of 100 respondents whom are physically active majority of them said yes 96% they have snack in the afternoon/evening. Much concern about health and less of them said no only 4% people.

3.10 Dinner time

Chart 3.10.1 (physically inactive group)

Here out of 100 participant's majority 52% of them have their dinner between 10-11pm and some of them 26% in between 9-10pm pretty good practice. Where a less people 16% answered 11-12 pm their dinner time and sadly the ideal practice between 8-9pm answered only 6% people.

Chart 3.10.2 (physically active group)

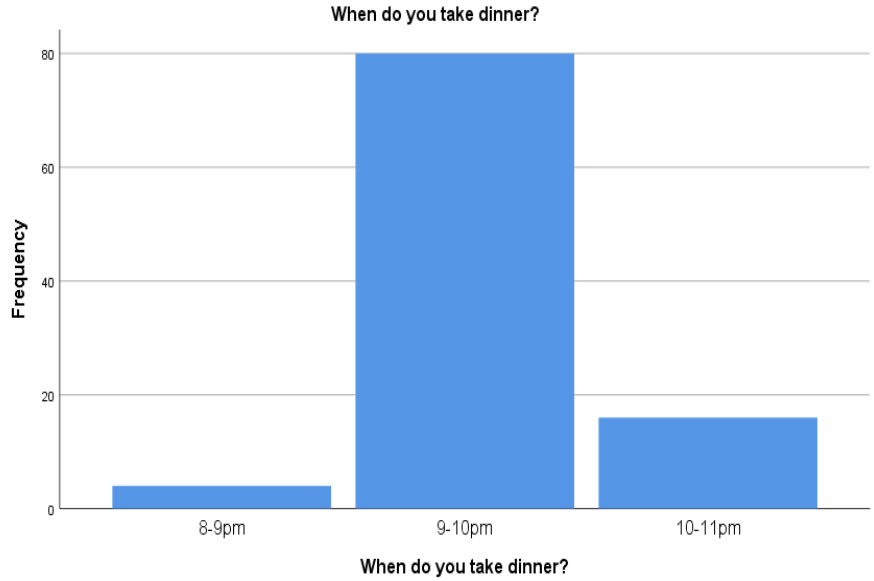


Chart is showing out of 100 participants' majority of them 80% answered between 9-10pm their dinner time a pretty good practice and some of them 16% said their dinner time 10-11pm and 4% 8-9pm. People with bad practice is less here because physically active group are further concern about their health.

3.11 Time for sound sleep at night

Chart 3.11.1 (physically inactive group)

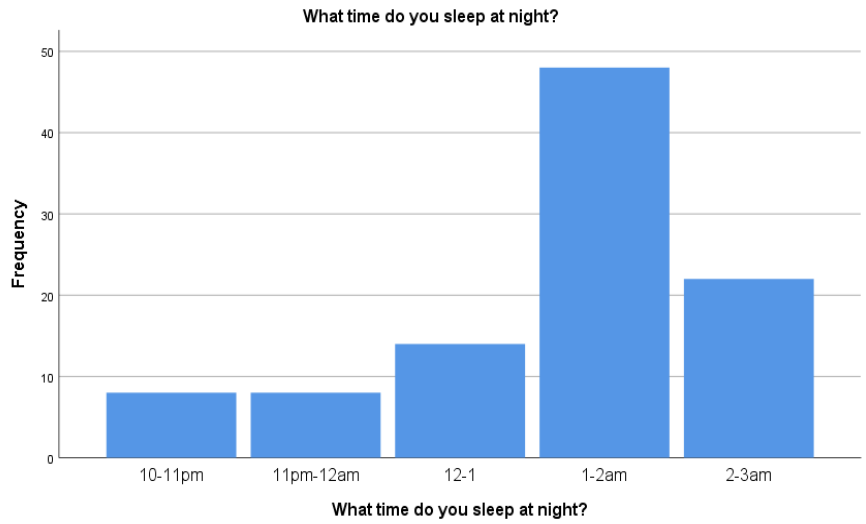
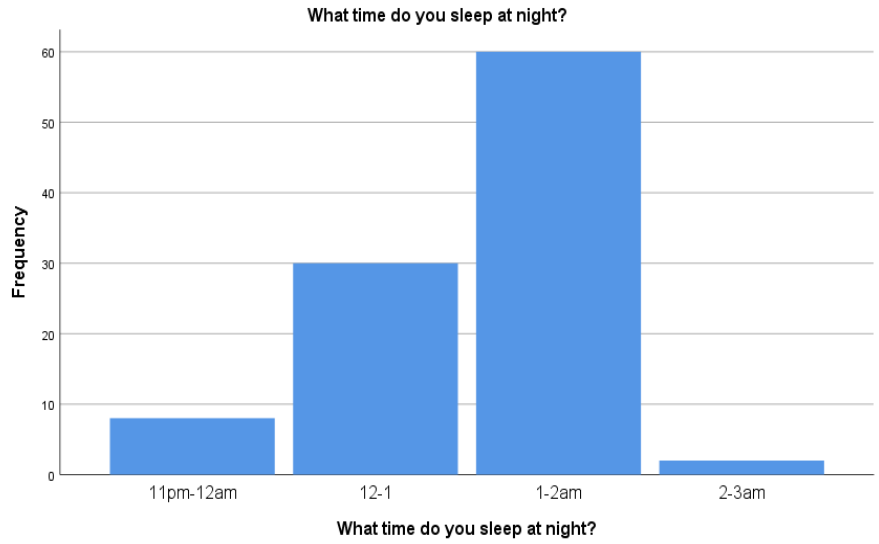


Chart is showing out of 100 respondents' majority of them 48% answered between 1-2am they go for sleep. While some of them 22% said 2-3am less of them 14% 12-1 am and bit of people 8% said 11am-12pm and 8% 10-11pm majority is practicing badly.

Chart 3.11.2 (physically active group)



Here out of 100 respondents' majority of them 60% said 1-2am les of them 2% answered 2-3pm and some of them 30% said 12-1pm while some of 8% said 11pm-12am. Among physically active people the amount of bad practice is much less.

3.12 Do you have depression?

Table 3.12.1 (physically inactive group)

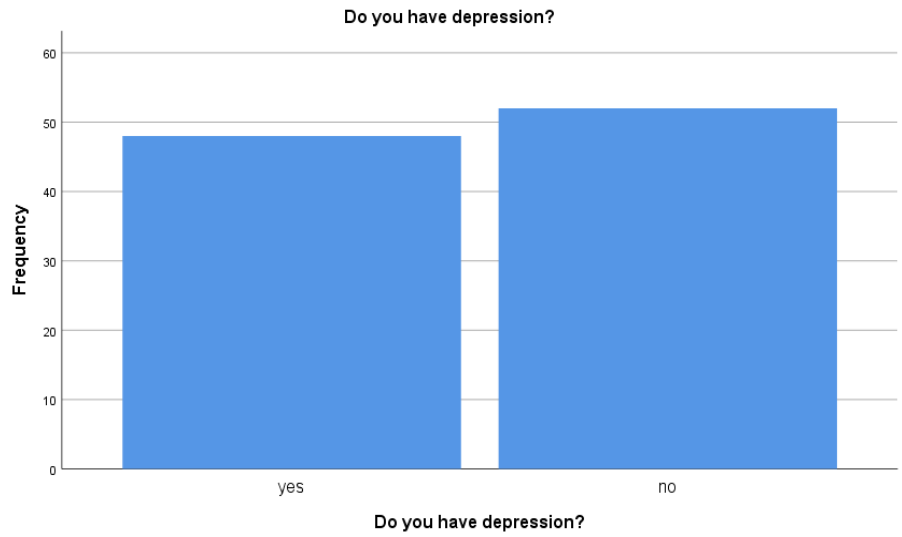
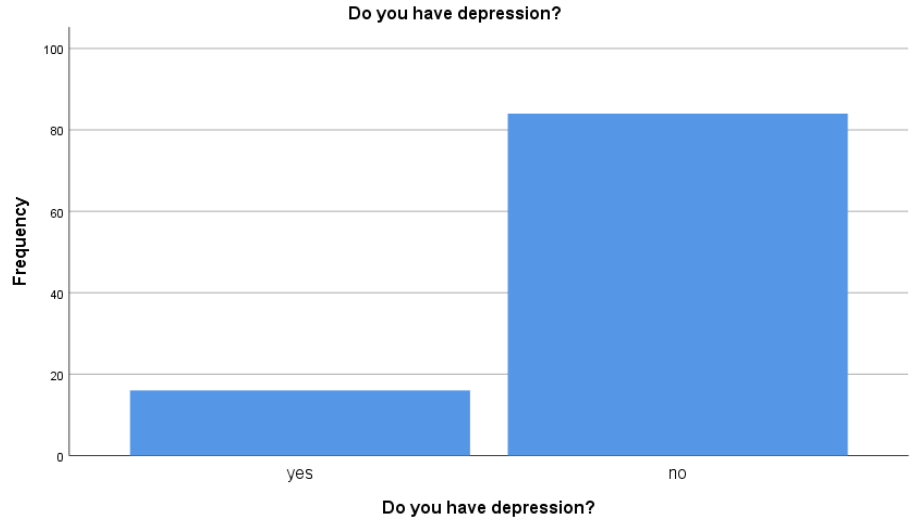


Table is showing an average result that among physically inactive group 48% said yes they have depression while 52% said no they don't have depression.

Chart 3.12.2 (physically active group)



Here you can see the difference out of 100 respondents' majority of them 84% said no they don't have depression and less of them 16% said yes they have depression. Result is just reverse compare to physically inactive and active group.

3.13 Can you make decisions easily

Table 3.13.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	46	46.0	46.0
	no	54	54.0	54.0
	Total	100	100.0	100.0

Table 3.13.1 is showing that out of 100 respondents majority of them 54% people said no they are not able to make any decision fluently. While 46% of them said yes are able to make decision fluently.

Table 3.13.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	yes	82	82.0	82.0
	no	18	18.0	18.0
	Total	100	100.0	100.0

Table 3.13.2 is showing out of 100 respondents majority of the people said yes 82% they are able to make decision fluently while less of them 18% said no. So those who are physically active and frequent in gym their mental health also strong.

3.14 Anxiety before going to sleep

Table 3.14.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	36	36.0	36.0
	no	64	64.0	64.0
	Total	100	100.0	100.0

Table 3.14.1 is showing out of 100 respondents 64% of them said no and 36% people said yes they have anxiety before going to sleep

Table 3.14.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	yes	10	10.0	10.0
	no	90	90.0	90.0
	Total	100	100.0	100.0

Table 3.14.2 is showing that out of 100 respondents majority of them 90% said no they don't have anxiety while less of them 10% said yes. Physically active have less who have anxiety compare to physically inactive group.

4. NCDs information

4.1 Know the types of NCDs

Table 4.1.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	yes	56	56.0	56.0
	no	44	44.0	44.0
	Total	100	100.0	100.0

Table 4.1.1 is showing out of 100 respondents' majority of them 56% said yes they are aware about NCDs. While 44% said no.

Table 4.1.2 (physically active group)

		Frequency	Percent	Valid Percent
Valid	yes	86	86.0	86.0
	no	14	14.0	14.0
	Total	100	100.0	100.0

Table 4.1.2 is showing out 100 respondents' majority of them said yes 86% they aware about NCDs and 14% said no. Here among health concern people awareness about NCDs is high than that of physically inactive people.

4.2 Do you have NCDs

Table 4.2.1 (physically inactive group)

		Frequency	Percent	Valid Percent
Valid	asthma	4	4.0	4.0
	high blood pressure	4	4.0	4.0
	no	92	92.0	92.0
	Total	100	100.0	100.0

Table 4.2.1 is showing among 100 respondents 4 people have asthma, 4 people have high blood pressure from the types of NCDs. And majority of them said no 92% people.

Table 4.2.2 (physically active group)

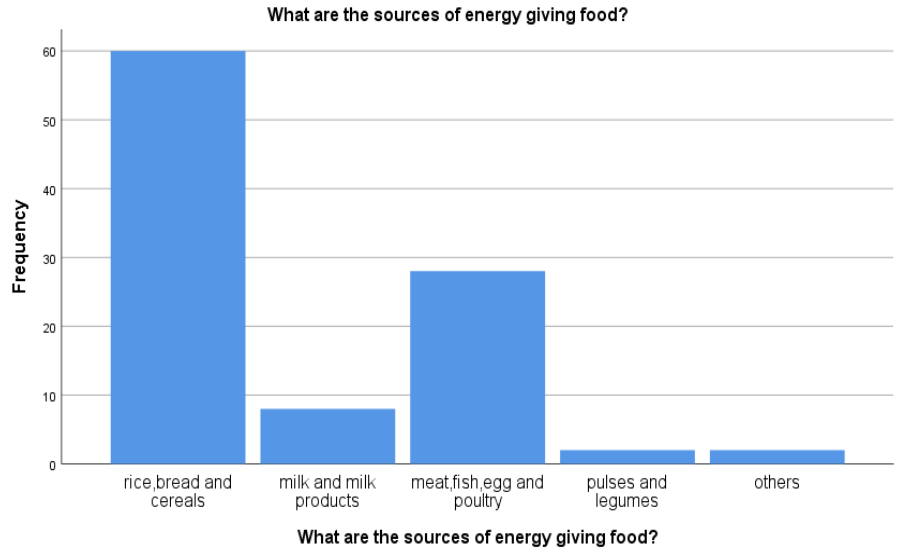
		Frequency	Percent	Valid Percent
Valid	diabetic	2	2.0	2.0
	high blood pressure	2	2.0	2.0
	no	96	96.0	96.0
	Total	100	100.0	100.0

Table 4.2.2 is showing out of 100 respondents 2 people have diabetic and 2 people have high blood pressure while majority of them said 96% no they don't have any kind of NCDs.

5. Information about dietary knowledge of the respondents

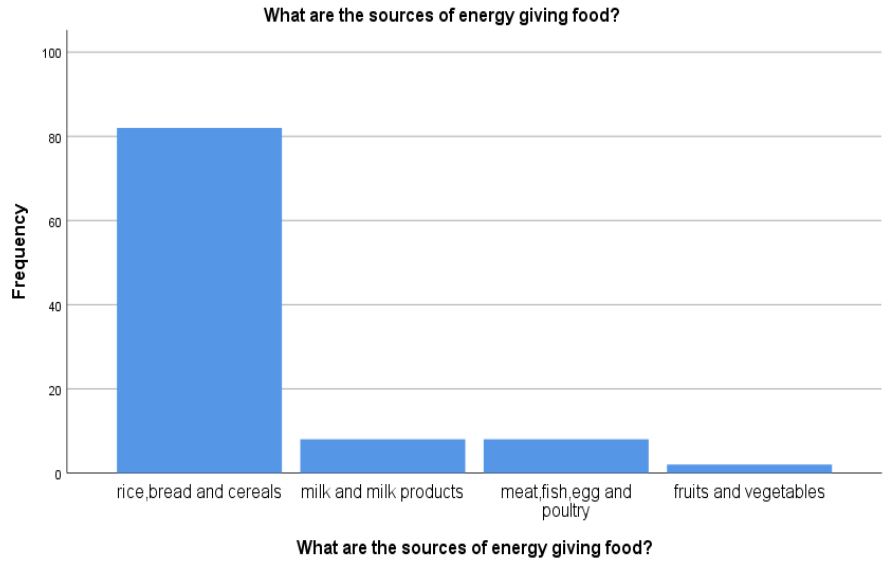
5.1 Sources of energy giving foods

Chart 5.1.1 (physically inactive group)



Here out of 100 respondent's majority of them have proper knowledge about energy giving food 60% said rice, brad and cereals. While 28% said meat, fish, egg and poultry and 2% said pulses and legumes and others 2%.

Chart 5.1.2 (physically active group)



Here showing out 100 respondents 82% people have the proper knowledge about energy giving' foods compare to physically inactive group. While some of them 8% said milk and milk products, 85 said about pulses and legumes and 2% said fruits and vegetables.

5.2 Sources of bodybuilding foods

Chart 5.2.1 (physically inactive group)

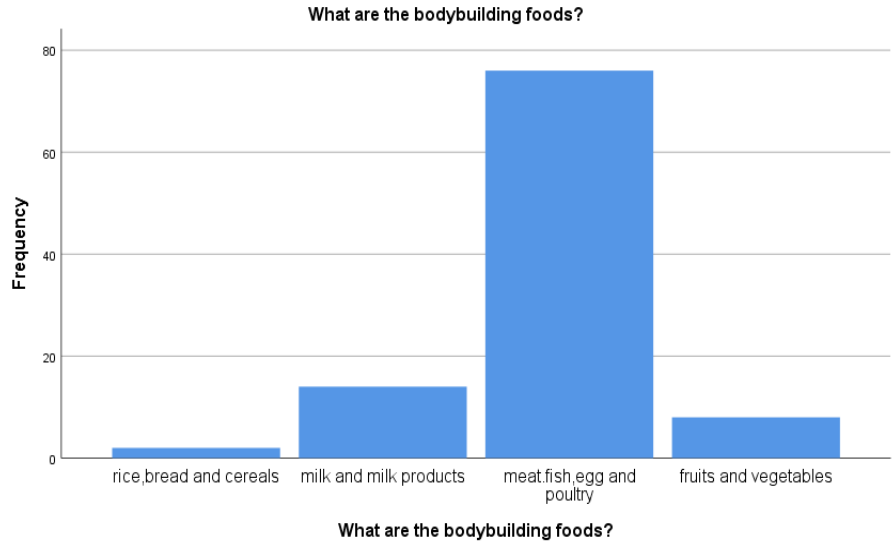
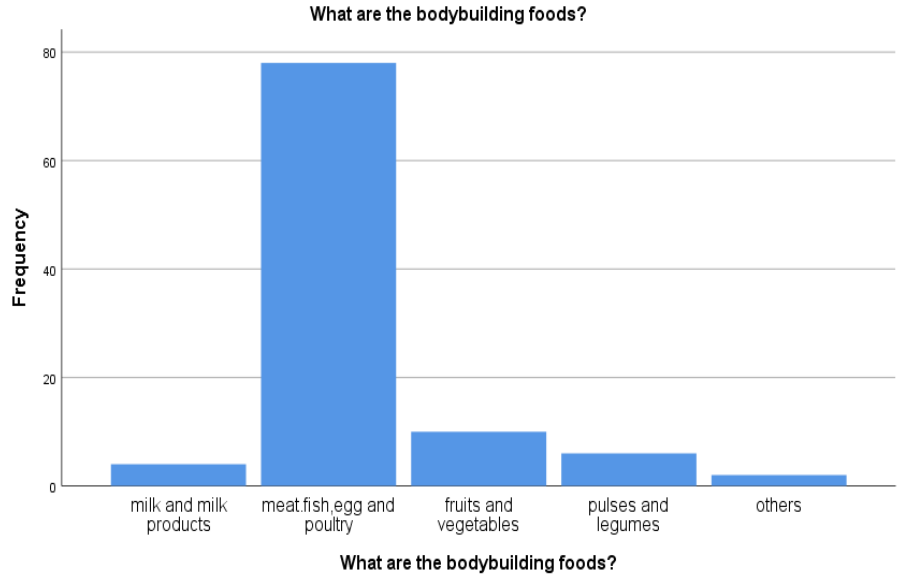


Chart 5.2.1 is showing majority of them known about bodybuilding food 76%.while some them said milk and milk products 14% and 85 said fruits and vegetables, 2% said rice, bread.

Chart 5.2.2 (physically active group)



Here showing out of 100 respondents' majority of them 78% have the proper knowledge about bodybuilding foods compare to physically inactive group. 10% said fruits and vegetables, 6% said pulses and legumes while 4% said milk & milk products and 2% others.

5.3 Sources of protective foods

Chart 5.3.1 (physically inactive group)

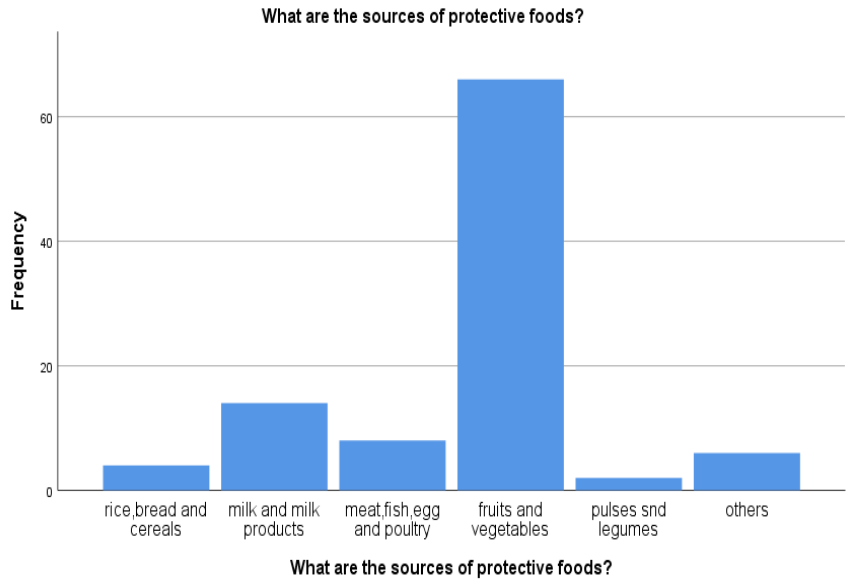


Chart 5.3.1 is showing out of 100 respondents 66% said fruits and vegetables while 14% said milk & milk products, 8% said meat, fish, poultry and 4% said rice, bread while 2% said pulses and legumes and 6% others

Chart 5.3.2 (physically active group)

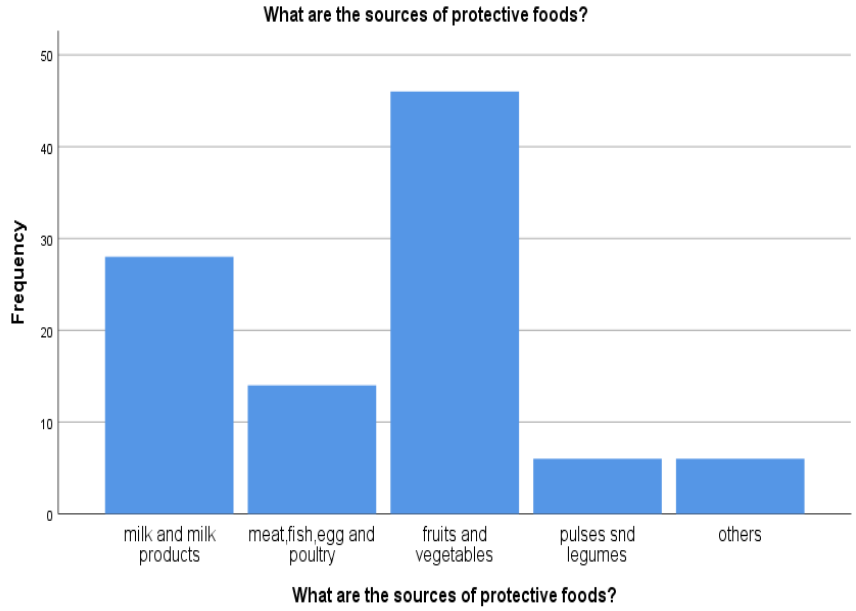
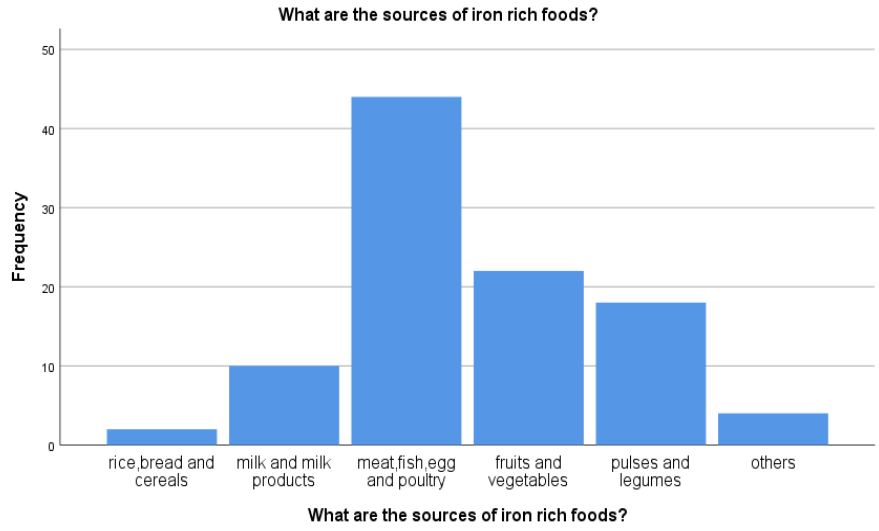


Chart 5.3.2 is showing out of 100 respondents 46% said fruits and vegetables and 28% said milk & milk products, 14% said meat, fish, egg while 6% pulses and legumes and 6% others.

5.4 Sources of iron rich foods

Chart 5.4.1 (physically inactive group)



Here showing among all 100 respondents 44% said meat, fish, poultry and 22% said fruits and vegetables while 18% said pulses and legumes, 10% said milk and milk products, 2% said rice, bread and 4% others.

Chart 5.4.2 (physically active group)

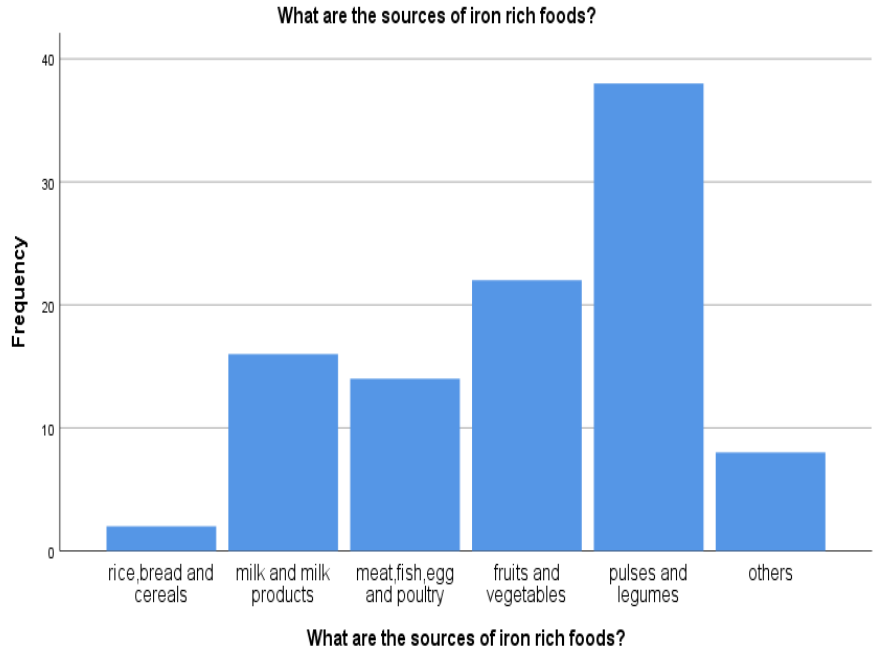


Chart 5.4.2 is showing out of 100 respondents' majority of them 38% said pulses and legumes 22% said fruits and vegetables, 16% said milk & milk products 14% said meat, fish, poultry, while 2% said rice, bread, and 8% others.

5.5 Sources of vitamin rich foods

Chart 5.5.1 (physically inactive group)

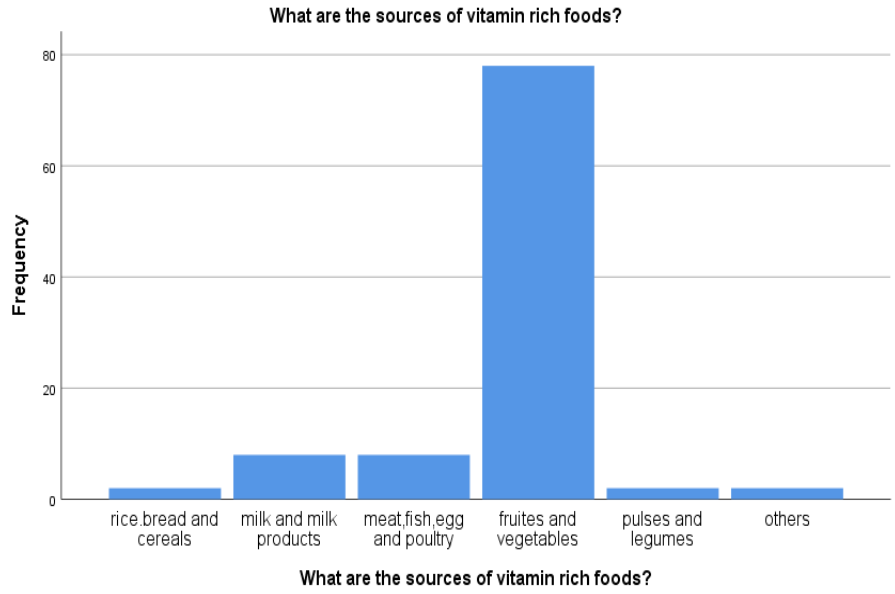
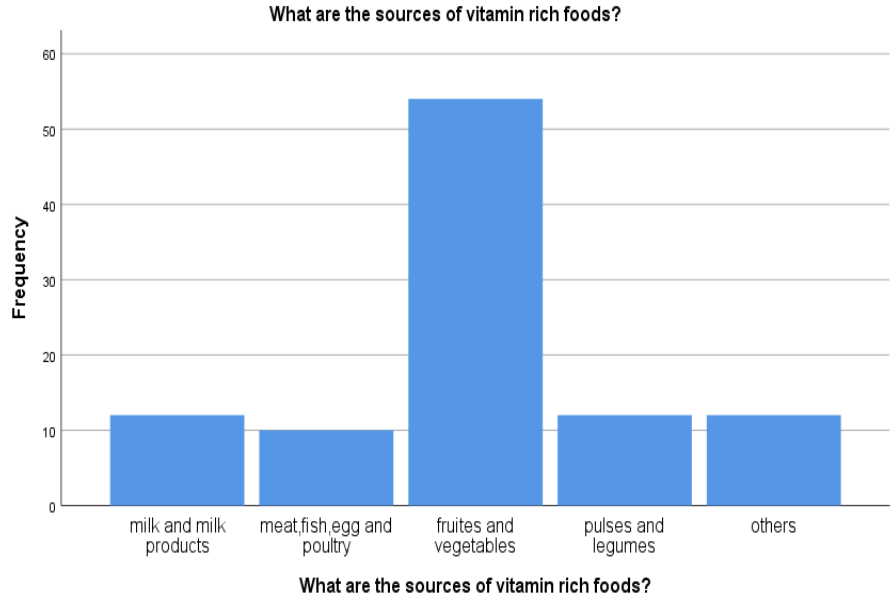


Chart 5.5.1 is showing out of 100 respondents' majority of them 78% said fruits and vegetables while 85 said milk & milk products and 8% said meat, fish, poultry and 2% said rice, bread, 2% said pulses and legumes 2% others.

Chart 5.5.2 (physically active group)



Here showing out of 100 respondents majority of them 54% said fruits and vegetables while 12% said milk & milk products, 12% said pulses and legumes, 10% said meat, fish & poultry and 12% others.

CHAPTER 5

Discussion:

Basically I conducted a survey on "A comparative study about lifestyle between placebo and control group of selected healthy volunteers of fitness in the Gymnastics, Municipal Corporation." I then started the data analysis to get reliable percentages and information from each participant.

According to the study those who were physically inactive (placebo or sedentary) average proportion of normal weight was 48% and 20% people were underweight while 32% overweight. Meanwhile whom physically active and gym goers people among them maximum proportion that means majority of them have normal weight 78% and surprisingly there were none with underweight (BMI<18.5) but some people got overweight 20% because of their bulking period. And less of 2% had obese class I.

If we look back their lifestyle (daily habits) among physically inactive group or sedentary group majority of them wake up late morning 30% while physically active people wake up early morning 50% that's pretty good practice for health concern people. According to their wake up time all have their breakfast after 30-60min. Morning exercise or jogging physically inactive people said no 80% they didn't jogging anymore. Due to their bad practice 48% people felt weak at noon or afternoon. While gym goers' 46% people among them said yes they do jogging along their daily workout routine and majority of them 94% people said they don't feel weak anymore for their healthy habits. Sedentary people said yes 86% of them eat fast food that's not actually the good practice while gym goers said yes only 58% and 30% of them alcoholic. And whom physically inactive people less concern about health 44% among them have smoking habit while gym goers only 24% among them were smokers and 8% among them were alcoholic. Smoking and drinking alcohol is most listed cause for NCDs. Among gym goers their daily food consumption routine is much better than physically inactive group. But sleeping time was almost same for both group majority of them said they go for sound sleep between 1-2am 60% among gym goers and 48% among physically inactive group. That's actually a common scenario for urban resident.

Another important thing was among physically active people majority of them said no 84% they don't have depression along with 82% people have capability to make decision fluently and majority of them said no 90% they don't have anxiety because of their good practice and physical activity their mental health getting super strong and got strength. While those who were physically inactive 48% among them have depression because of their random bad practice along with 54% among them were not able to make decision fluently and 36% people have anxiety because of they are not physically active while they are practicing a bad daily food consumption habit. And both group have average knowledge about NCDs but among sedentary group only 56% people aware bout NCDs while majority 86% of gym goers were aware bout NCDs. Their food source and dietary knowledge almost same but physically inactive group they all are not consuming food in healthy way compare to physically active people.

CHAPTER 6

Conclusion:

Basically the major goal is to compare healthy habits (lifestyle) among urban residents who are physically inactive (placebo or sedentary) and those who go to gym (physically active), as an unhealthy lifestyle increases the risk of NCDs.

As is lifestyle daily habits, food consumption, physically activity all are connected to NCDs. For bad practice smoking habit, drinking alcohol an unhealthy lifestyle can cause cardiovascular disease, diabetic, hypertension and so on. According to the study people whom were physically active and frequent in gym they are living through a super healthy life style with good practice that's why their possibility to get NCDs is very less.

Meanwhile people who were physically inactive living with sedentary life and they got many bad practice daily habits along with bad food consumption practice. Already they are in the possible risky zone may get NCDs however there was a set of gap between knowledge and conduct in several circumstances. It appears that we have to pay more attention on this aspects in order to boost community health and fitness awareness along with ideal food consumption practice. And we need to influence our community to be physically active it's not all about to engage gym but also we can jogging on a daily basis and home workout that can only the way to get physically fit along with mental health strength. Primarily as a university students we first need to aware all students from different club activities and live counselling and social media could be another better option to aware people about health and fitness.

CHAPTER 7

References:

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Questionnaire

A comparative study about lifestyle between placebo and control group of selected healthy volunteers of fitness in the Gymnastics, Municipal Corporation.

A) Background information

1. Name of the respondent :
2. Respondent's sex : ☐Male ☐Female
3. Respondent's age :
4. Educational qualification of the respondent:

B) Anthropometric measurement

5 Weight in Kg:
6 Height in cm:
7 BMI:

C) Information about lifestyle

8. What time do you wake up in the morning?
   a) 5-6 am b) 6-7 am c) 7-8 am d) 8-9am e) 9-10 am d)10-11 am
9. What time do you take breakfast?
   a) 6-7 am b) 7-8 am c) 8-9 am d) 9-10 am e) 10-11 am
10. Do you exercise/jogging in the morning?
    ☐Yes ☐No
11. Do you feel weak at noon or in the afternoon?
    ☐Yes ☐No
12. When do you take lunch?
    a) 12-1 pm b) 1-2 pm c) 2-3 pm
13. Do you eat fast food?
    ☐Yes ☐No
14. Do you smoke?
    ☐Yes ☐No
15. Do you drink alcohol?
    ☐Yes ☐No
16. Do you have snack in the afternoon/evening?
    ☐Yes ☐No
17. When do you take dinner?
    a) 8-9 pm b) 9-10 pm c) 10-11 pm c) 11-12 pm
18. What time do you sleep at night?
    a) 10-11 pm b) 11 am-12 pm c) 12- 1 am d) 1-2 am e) 2-3 am
19. Do you have depression?
    ☐Yes ☐No
20. Can you make decisions easily?
    ☐Yes ☐No
21. Do you have anxiety before going to sleep?

☐Yes ☐No

D) NCDs information

22. Do you know the types of Non Communicable diseases?

☐Yes ☐No

23. Do you have NCDs?

☐ Diabetic ☐asthma ☐ heart disease ☐ high blood pressure

Mention if others…….

E) Information about dietary knowledge of the respondents

24. What are the sources of energy giving foods?

a) Rice, bread and cereals b) Milk and milk products

c) Meat, fish, egg and poultry d) Fruits and vegetables

e) Pulses and legumes f) others

25. What are the sources of body building foods?

a) Rice, bread and cereals b) Milk and milk products

c) Meat, fish, egg and poultry d) Fruits and vegetables

e) Pulses and legumes f) others

26. What are the sources of protective foods?

a) Rice, bread and cereals b) Milk and milk products

c) Meat, fish, egg and poultry d) Fruits and vegetables

e) Pulses and legumes f) others

27. What are the sources of iron rich foods?

a) Rice, bread and cereals b) Milk and milk products

c) Meat, fish, egg and poultry d) Fruits and vegetables

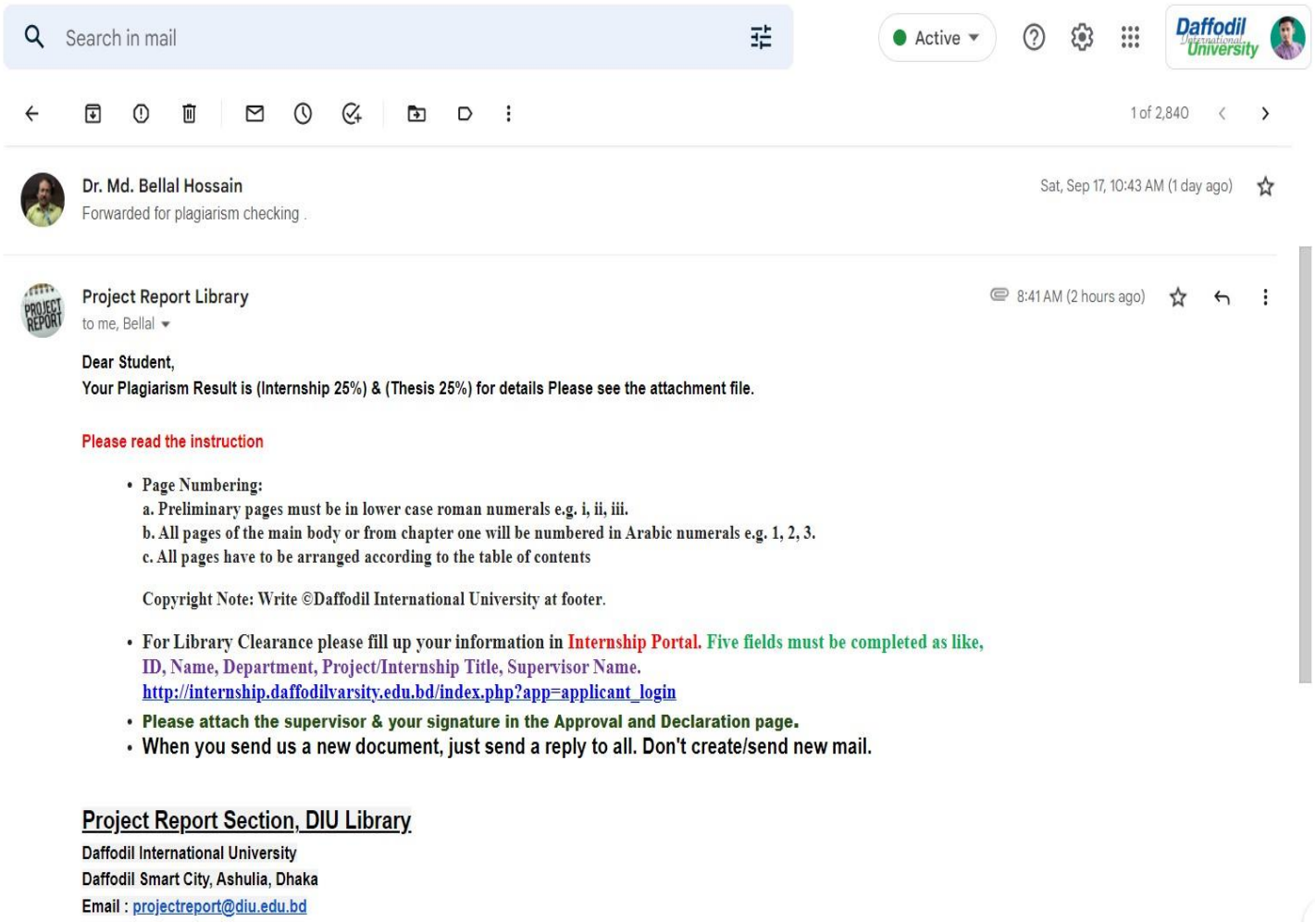
e) Pulses and legumes f) others

28. What are the main sources of Vitamins rich foods?

a) Rice, bread and cereals b) Milk and milk products

c) Meat, fish, egg and poultry d) Fruits and vegetables

e) Pulses and legumes f) others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