

A SURVEY ON FAST FOOD TAKING STATUS AMONG EAST WEST UNIVERSITY STUDENTS

**A Dissertation submitted to the Department of Pharmacy, East
West University, Bangladesh, in partial fulfillment of the
requirements for the Degree of Bachelor of Pharmacy**

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Declaration by the Research Candidate

I, Afsana Anwar, ID: 2012-3-70-002 hereby declare that the dissertation entitled “Fast food taking status among East West university students”. Submitted by me to the Department of Pharmacy, East West University for the partial fulfillment of the requirement for the award of degree of Bachelor of Pharmacy is a record of research work under the supervision and guidance of Md. Anisur Rahman, Assistant Professor , Department of Pharmacy, East West University, Dhaka.

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Certificate by the Supervisor

This is to certify that the thesis entitled “Fast food taking status among East West university students” submitted to the Department of Pharmacy, East West University for the partial fulfillment of the requirement for the award of degree of Bachelor of Pharmacy is a Bona fide record of original and genuine research work carried out by Afsana Anwar, ID: 2012-3-70-002 in 2017 of her research in the Department of Pharmacy, East West University, under our supervision and guidance.

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This is to certify that the thesis entitled “Fast food taking status among East West university students” submitted to the Department of Pharmacy, East West University for the partial fulfillment of the requirement for the award of degree of Bachelor of Pharmacy is a Bona fide record of original and genuine research work carried out by Afsana Anwar, ID: 2012-3-70-002 in 2017.

Dr. Shamsun Nahar Khan
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Dedication

This research work is dedicated to my beloved parents,

Who are my biggest Inspirations and to

My Research Supervisor,

Honorable faculties and loving friends.

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Abstract

Fast foods are quick, reasonably priced, and readily available alternatives to home cooking. While convenient and inexpensive for a busy lifestyle, fast foods are typically high in calories, fat, saturated fat, sugar, and salt. Frequent fast-food consumption at most chains is unhealthy and contributes to weight gain, obesity, type 2 diabetes and coronary artery disease. The purpose of our study is to determine the knowledge level of EWU students about fastfood taking status. The survey was conducted on 300 EWU students through questionnaire supply. Major students (66%) said that they moderately like fast-food. Most of responds said they eat fast-food Few times a week (28%); once a week (25%);occasionally (22%). Most participants said that they usually eat fast-food because they like the taste. Major students (65%) said that one can enjoy his/her life without fast-food.Most of the students (82%) informed that advertisements influence fast-food eating behavior.70% students said that they are aware of balance diet.Majority of Students (86%) considered fastfood is not healthy. Most of responds (67%) said that they did not take fast-food as an alternative to breakfast.72% students felt that fast-food can be detrimental to health and body image.56% students said that consumption of fast-food is related to the prevalence of asthma and allergy. Major students (72%) said that fast-food increases the risk of type-2 diabetes.89% students said that fast-food causes heart disease. Majority of Students (79%) really know the harmful effects of chemical present in fast-food. From this survey, we have come to know that most students are aware of harmful effect of fastfood. The government and policy makers should pay attention about improving fastfood quality.

Key word: Fast food; Knowledge; Diseases; East West University students

Chapter 1

Introduction

1. INTRODUCTION

1.1 Fast food

Prepared food from a restaurant that specialises in providing a complete meal ,often consisting of a permutation of a hamburger or chicken, french fries and a soft drink or milkshake,in less than two minutes. A diet limited to fast foods is high in protein, fat and calories, and low in vitamins, minerals and fibre.

Segen's Medical Dictionary. (2012)

Examples/Types

- Burgers, pizza, fried stuff with cheese, French fries, donuts, paratha roll, shawarma and all such food items that can be prepared and served quickly



Figure: 1.1.1 Types of fast food

1.2 Effects of fast-food on the body

Food is fuel for your body. It has a direct impact on how you feel as well as on your overall health. Fast food isn't necessarily bad, but in many cases it's highly processed and contains large amounts of carbohydrates, added sugar, unhealthy fats, and salt (sodium).

These foods are often high in calories yet offer little or no nutritional value. When fast food frequently replaces nutritious foods in your diet, it can lead to poor nutrition, poor health, and weight gain. Tests in lab animals have even shown a negative effect in short duration diets. Being overweight is a risk factor for a variety of chronic health problems including heart disease, diabetes, and stroke.

According to the Robert Wood Johnson Foundation, most people underestimate the number of calories they're eating in a fast-food restaurant. A 2013 study published in JAMA Pediatrics

showed that children and adolescents take in more calories in fast food and other restaurants than at home. Eating at a restaurant added between 160 and 310 calories a day.

1.2.1 Digestive and Cardiovascular Systems

Many fast foods and drinks are loaded with carbohydrates and, consequently, a lot of calories. Your digestive system breaks carbs down into sugar (glucose), which it then releases into your bloodstream. Your pancreas responds by releasing insulin, which is needed to transport sugar to cells throughout your body. As the sugar is absorbed, your blood sugar levels drop. When blood sugar gets low, your pancreas releases another hormone called glucagon. Glucagon tells the liver to start making use of stored sugars.

When everything is working in sync, blood sugar levels stay within a normal range. When you take in high amounts of carbs, it causes a spike in your blood sugar. That can alter the normal insulin response. Frequent spikes in blood sugar may be a contributing factor in insulin resistance and type 2 diabetes.

- **Sugar and Fat**

Added sugars have no nutritional value but are high in calories. According to the American Heart Association, most Americans take in twice as much sugar as is recommended for optimal health. All those extra calories add up to extra weight, which is a contributing factor for getting heart disease.

Trans fats are a manufactured fat with no extra nutritional value. They're considered so unhealthy that some countries have banned their use. Often found in fast food, trans fats are known to raise LDL cholesterol levels. That's the undesirable kind of cholesterol. They can also lower HDL cholesterol, which is the so-called good cholesterol. Trans fats may also increase your risk of developing type 2 diabetes.

- **Sodium**

Too much sodium causes your body to retain water, making you feel bloated and puffy. But that's the least of the damage overly salted foods can do. Sodium also can contribute to existing high blood pressure or enlarged heart muscle. If you have congestive heart failure, cirrhosis, or kidney disease, too much salt can contribute to a dangerous buildup of fluid. Excess sodium may also increase your risk for kidney stones, kidney disease, and stomach cancer.

High cholesterol and high blood pressure are among the top risk factors for heart disease and stroke.

1.2.2 Respiratory System

Obesity is associated with an increase in respiratory problems. Even without diagnosed medical conditions, obesity may cause episodes of shortness of breath or wheezing with little exertion. Obesity also can play a role in the development of sleep apnea, a condition in which sleep is continually disrupted by shallow breathing and asthma.

A recent study published in the journal *Thorax* suggests that children who eat fast food at least three times a week are at increased risk of asthma and rhinitis, which involves having a congested, drippy nose.

1.2.3 Central Nervous System

A study published in the journal *Public Health Nutrition* showed that eating commercial baked goods (doughnuts, croissants, and, yes, even bran muffins) and fast food (pizza, hamburgers, and hot dogs) may be linked to depression. The study determined that people who eat fast food are 51 percent more likely to develop depression than those who eat little to no fast food. It was also found that the more fast food study participants consumed, the more likely they were to develop depression.

A junk food diet could also affect your brain's synapses and the molecules related to memory and learning, according to a study published in the journal *Nature*. Animal tests have shown a similar effect. Rats fed a steady diet with over half the calories from fat (similar to a junk food diet) for just a few days had trouble completing a maze they had previously mastered in a 2009 study.

1.2.4 Skin and Bones

Chocolate and greasy foods are often blamed for acne, but they're not the real culprits. It's carbs that are to blame. According to the Mayo Clinic, because foods that are high in carbohydrates increase blood sugar levels, they may also trigger acne.

The study in *Thorax* showed a higher risk of eczema (inflamed, irritated patches of skin) among children with a diet high in fast food.

When you consume foods high in carbs and sugar, bacteria residing in your mouth produce acids. These acids can destroy tooth enamel, a contributing factor in dental cavities. When the enamel of your tooth is lost, it can't be replaced. Poor oral health has also been linked to other health problems.

Excess sodium may also increase your risk of developing osteoporosis (thin, fragile bones).

Ann Pietrangelo and Elea Carey and Kimberly Holland. (No date).

1.3 Facts about Fast Food

1.3.1 More calories

Surveys estimate that snacking caused people to consume 300 additional calories than what they normally would. The biggest contributor to this snacking culture is McDonalds, which provides 43 percent of junk food consumption in the United States alone.

1.3.2 Addicting ingredient

Extra sugar and food dye is put into fast food to make it more appealing, particularly to younger viewers. Many believe that these addicting ingredients are contributing to the growing obesity epidemic.

1.3.3 Soaring obesity

Over the past twenty years, the number of obese children has doubled and the number of obese teens has tripled. As of 2004 it is estimated that nine million children between the ages of 6-18 are obese. A stunning 65 percent of American adults are overweight. This includes 127 million overweight adults, approximately 60 million obese adults and 9 million considered morbidly obese, or more than 100 pounds overweight.

MDhealth.com. (No date).

1.4 What Are the Causes of Fast Food's Popularity?

1.4.1 Price

When it comes to restaurant dining, fast food is nearly as cheap as it gets, so price is one of the primary reasons people frequent them. Finding inexpensive dining out options is especially important to families, which make up a large percentage of fast food customers. Many chains offer value meals or items for less than a dollar, counting on customers with budget sensitivity to be attracted to these options.

1.4.2 Convenience

Fast food is simple to obtain and practically on every corner, providing a quick way to purchase a meal. As people have less and less time to dedicate to cooking meals, they turn more to the simplest available option. Since many fast food establishments have drive-through windows, diners don't even have to get out of their cars to pick up food. With the augment of healthier meal options at fast food chains, they've become even more popular.

1.4.3Taste

Many fast food restaurants offer guilty pleasures on their menus, such as French fries and bacon. These elements are comfort food for many people and can be filling as well as tasty.

Unfortunately, the reason fast food tastes so good is often because it's loaded with fat and sodium, but due to the outcry from customers who are increasingly health-conscious, changes in the way some items are prepared are being made which may or may not affect their taste.

1.4.4Marketing

Fast food restaurants spend a large amount of money on marketing their meals to consumers, and it seems to be effective. Teens, adults and parents are all separate targets of advertising, and children are also a major marketing demographic with toys and special meals aimed just for them. Many fast food chains design marketing promotions around popular sports and media events, and publicize contests as another way to get diners through their doors.

Allison Edrington. (No date).

1.5 Dangerous diseases that are caused by fast-foods

1.5.1 Heart Disease

The more fast food you eat, the more chances of obesity and this in turn, can increase the risk of heart disease as one tends to have lower levels of good cholesterol and higher levels of bad cholesterol.

1.5.2 Liver Damage

Since the distribution of the fast food meal that you eat doesn't get distributed in the body evenly, the fat tends to accumulate in the liver and can cause permanent damage, inflammation and even scarring.

1.5.3 Stroke

Since obesity causes blockages in the arteries, this can separately result in high "bad" cholesterol levels leading to high blood pressure levels as well. Due to these blockages, the blood that travels to the brain is blocked (as the arteries carry them) and this results in a stroke.

1.5.4 Diabetes (Type 2)

This is again an obesity-related disease which occurs when your pancreas is unable to supply a sufficient amount of insulin to convert sugars to energy. This unconverted sugar floats around in the blood and can raise the risk of one getting Type 2 Diabetes.

Staff Reporter . (2015).

1.6 Advantages of Fast Food

1.6.1 Saves Time

They wouldn't call it fast food if they weren't known to save time and energy. People do not have to go to the grocery store to buy ingredients and then come home to prepare their meals. For someone who doesn't cook, a lot of time and energy goes into the thankless job of washing meat and vegetables, cooking and after all is said and done, washing the dishes.

The convenience that fast food provides is undeniable.

1.6.2 Saves Money

Now, I know this may sound silly but hear me out. Most fast food is economical compared to fine dining. Even extravagant home cooked meals can be heavy on the pocket in comparison to fast food. By not wasting time on the preparation of food, you can utilize your time on other more profitable endeavors. This may sound a little ignorant, but hey we have to chalk up some fast food advantages, so give it a pass.

1.6.3 You can make a Healthy Choice

Fast food has a reputation for containing unsafe food preservatives, bad fat and high calories. This may be true to a certain extent but it is the 21st century. People nowadays are more health-conscious than ever before. Many fast food joints like Subway are aiming to produce healthy food options.

1.6.4 On-the-go-Meals

“Fast food – a modern approach to food consumption that provides food service within reach.” Catchy isn't it? Fast food joints are spread all over the world, open and serving anytime of the day. Fast food deliveries and drive-thrus are a vital part of our society. People can enjoy their food while working, driving or watching a movie in the comfort of their homes (because well, cooking is just too old school).

1.6.5 A variety in food

No article on fast food advantages and disadvantages would be complete without us talking about this. The fast food choices being offered these days is just mind blowing. So many different flavors, from different cultures and taste palates. You can pick a different fast food item for every day of the month and you'd still have countless things to try. Kinda get's the taste buds excited, doesn't it?

Just Health And Lifestyle. (No date).

1.7 Disadvantages of Fast Food

1.7.1 Unhealthy Food Choice

Even though many fast food joints are now offering healthier food choices, most of the fast food is still quite unhealthy. Most fast foods like french fries, burgers, pizzas have high salt and calorie content.

Likewise, beverages and desserts like cakes, shakes and ice creams contain sugar in high quantities which may cause an increase in blood sugar leading to diabetes. We also know that the body loves to store carbohydrates as fatty deposits.

Since, fast food is so healthy (no it's not), fast food joints like to offer upsizing their meals and drinks. Man by nature is quite greedy. Most just cannot let such an opportunity go, opt to upsize their meals and eat more than they can digest. This leads us nicely onto our next disadvantage of fast food.

1.7.2 Obesity

Historically, fast food is known to be very fattening because of its high calorie content. The cooking process of most fast food items specially the really mouthwatering ones involve a lot of grease use. This is pure unadulterated unhealthy fat. Eating such junk food leads to obesity and therefore the obesity problem in America.

Obesity is a common medical condition in most countries with a fast food culture. Not only is obesity bad for your physical appearance it can lead to a slew of health problems including heart disease and reduced life expectancy.

1.7.3 Adverse Effects of Additives and Preservatives

Most fast food contains food additives and preservatives. A lot of these additives and preservatives are harmful for the human body. Some of the preservatives have been known to contain carcinogenics and can lead to cancer. French fries and pizza may contain sodium in high quantities. If too much is consumed, this can cause issues in the cardiovascular and kidney function.

1.7.4 Low Quality of food

Fast food is a fast turning food item that needs quick preparation time. Hence most of the restaurants are involved in making fast food in bulk which naturally lowers the quality of the food.

There have been more than one case of fast food restaurants being busted for being unhygienic. It is quite easy to comprehend that some fast food restaurants may not take appropriate measures to wash and prepare the vegetables or meat due to time constraints.

1.7.5 Hampers Quality Family Time

Fast food advantages and disadvantages would not be complete without us talking about its social effect.

Family meal time has always been seen as an opportunity where members of the family gather to spend some quality time together while eating and chatting. With the emergence of fast food joints, people are now spending less time together since they can just order in and continue to eat while doing what they were doing.

1.7.6 Bad eating habits in kids

Fast food may be a fun treat for kids at times but visiting a fast food joint too often is not advisable. It can lead to the formation of unhealthy eating habits among young kids and teenagers. Youngsters have always enjoyed the unhealthy but fascinatingly tasty fast food. They are more inclined to eat fast food junk like pizzas, burgers and fries. Once a habit develops turning them to healthy alternative to fast food may be harder than you imagine.

1.7.7 Impact on the environment

In addition to the medical disadvantages associated with fast food, the production and selling of junk food puts a significant negative impact on the environment. The amount of resources necessary to raise the meat for fast food products creates a shortage of resources around the world. For example, every pound of hamburger we consume takes 2500 gallons of water and 16 pounds of grain to produce, say nothing of the land needed to raise the cattle and the grains to feed them. The animals raised to make fast food meat products are often fed antibiotics and a poor diet that causes the animals to be underdeveloped. These antibiotics and growth hormones can be passed on to those who consume the meat afterward, leading to negative health effects. Some have reported growing extra breast tissue or developing damage to the immune system from eating fast food on a regular basis.

(Just Health And Lifestyle, No date)

1.8 Statistics of Health Risks From Eating Fast Food

With statistical associations to weight gain, obesity, diabetes, cardiovascular conditions and all-cause mortality, regularly eating fast food can be a dangerous thing.

1.8.1 Weight Gain and Obesity

A typical fast food meal is extremely high in fat and calories. Weight gain occurs when you consume more calories than you burn in a day. In a 2004 study published in "The Lancet,"

researchers found that eating more than twice per week at fast food restaurants is linked to significantly more weight gain over time than occasional visits. Similarly, researchers at the

University of California, Berkeley in 2009 noted that living near a fast food restaurant is linked to a 5.2 percent greater risk of obesity.

1.8.2 Type 2 Diabetes

The 2004 study noted that regularly eating fast food doubles your chance of developing insulin resistance, which heightens risk of developing type 2 diabetes. The number of people worldwide living with diabetes has more than doubled since 1980, from 153 million then to nearly 350 million in 2011, according to a report in "The Guardian."

1.8.3 Cardiovascular Conditions

Higher densities of fast food restaurants are linked to a greater risk of cardiovascular health problems. In a 2005 study published in the "Canadian Journal of Public Health," researchers at the Institute for Clinical Evaluative Sciences in Ontario, Canada found that regions with high concentrations of fast food restaurants are 2.62 times more likely to have extremely high levels of hospitalization for coronary problems. A 2010 study by researchers at the University of South Australia supported this. Their findings, published in the "European Journal of Epidemiology," indicated that, for each 10 percent increase in the density of fast food restaurants in a region, people are 1.39 times more likely to die from a cardiovascular condition.

1.8.4 All-Cause Mortality

Fast food is associated with an increased risk of death even after ruling out deaths due to cardiovascular conditions. In its 2005 study, the Canadian research team noted that regions high in fast food restaurant density are 2.52 times more likely to be extremely high in all-cause mortality. Similarly, the researchers at the University of South Australia in 2010 noted that each 10 percent increase in the concentration of fast food restaurants in a region is linked to a 1.36 times greater risk of all-cause mortality.

Matthew Lee. (No date)

Chapter 2

Literature Review

2.1 Fast Foods and their Impact on Health

Ashakiran1* & Deepthi R2

Fast food affects our life in many aspects. "Eat healthy and live healthy" is one of the essential requirements for long life. Unfortunately, today's world has been adapted to a system of consumption of foods which has several adverse effects on health. Lifestyle changes has compelled us so much that one has so little time to really think what we are eating is right! Globalisation and urbanisation have greatly affected one's eating habits and forced many people to consume fancy and high calorie fast foods, popularly known as Junk foods. Research into the possible health hazards on consumption of such high calorie foods has given an insight to avoid them, but unfortunately measures taken are not as effective as they need to be. Diseases like coronary artery disease and diabetes mellitus have seen a profound rise in developing countries and such unhealthy junk food consumption is one of the notable factors to its contribution. This global problem of consuming junk food on a large scale and its impact on health needs emphasis and health education which can greatly contribute to its limited consumption and switching over to healthy eating habits for the better living. Knowledge highlighting about the eating habits, nutritional aspects, quality of unhealthy foods, their health impact and preventive measures should be given to create awareness and render health education for a change towards good eating practices. Junk food and its impact on health have been reviewed from various resources and have been systematically presented, so as to emphasize its ill effects and measures to be adapted towards healthy living.

Ashakiran & Deepthi R.. (2012)

2.2 FACTORS THAT AFFECT FAST FOOD CONSUMPTION

Martin W. Sivula, Ph.D. ; YuchuSong

American rates of overweight and obesity are high, and the prevalence of obesity has continued to rise over the past few decades. Excessive consumption of fast food has been one of the multiple contributing factors driving the overweight and obese epidemic. This literature review summarizes the disadvantages of fast food on people's health, reveals common people's average fast food consumption. Based on this background, the paper is to explore factors why some people choose not to consume fast food, as well as factors why some people choose to consume fast food, and to summarize some recommendations that can help reduce the consumption of fast food from the studies that have been already done.

Yuchu Song. (May 3 , 2016)

2.3Fast Food and Financial Impatience

Sanford E. DeVoe, Julian House, and Chen-Bo Zhong

We investigated whether the prevalence of fast-food restaurants in the social ecology are associated with greater financial impatience at the national, neighborhood, and individual level. Study 1 shows that the proliferation of fast-food restaurants over the past 3 decades in the developed world was associated with a historic shift in financial impatience, as manifested in precipitously declining household savings rates. Study 2 finds that households saved less when living in neighborhoods with a higher concentration of fast-food restaurants relative to full-service restaurants. With a direct measure of individuals' delay discounting preferences, Study 3 confirms that a higher concentration of fast-food restaurants within one's neighborhood is associated with greater financial impatience. In line with a causal relationship, Study 4 reveals that recalling a recent fast-food, as opposed to full-service, dining experience at restaurants within the same neighborhood induced greater delay discounting, which was mediated behaviorally by how quickly participants completed the recall task itself. Finally, Study 5 demonstrates that pedestrians walking down the same urban street exhibited greater delay discounting in their choice of financial reward if they were surveyed in front of a fast-food restaurant, compared to a full-service restaurant. Collectively, these data indicate a link between the prevalence of fast food and financial impatience across multiple levels of analysis, and suggest the plausibility of fast food having a reinforcing effect on financial impatience. The present investigation highlights how the pervasiveness of organizational cues in the everyday social ecology can have a far-ranging influence.

Sanford E. DeVoe, Julian House, and Chen-Bo Zhong. (May 23, 2013)

2.4EFFECT OF FAST FOOD CONSUMPTION ON THE HEALTH OF SCHOOL GOING CHILDREN (9-13YEAR)

Monika Singh ; Sunita Mishra

Fast food costs relatively little and tastes good, but the negative effects on physical health last much longer than these immediate concerns. With the high-calorie meals come more fat, cholesterol, salt and sugar and therefore fewer vitamins, minerals and other nutrients than in healthier foods. The objective of this study to know about the effect of fast food consumption on the health of school going children (9-13year). Total of 100 school going student were selected from five different schools of Lucknow District. The study was carried out by using the following tools to analyze the effect of fast food consumption health of respondents. Self designed & pre tested questionnaire was used in the study. SPSS version 20 was used to draw meaningful inferences from the collected raw data. The result found that among 9 year 100% respondents were found obese level 1. Among 10 year 42.8% of respondents were found obese level 3. Among 11 year 8.6% of respondents were found obese level 3. Among 12 year 36.3% respondents were found obese level 2. Among 13 year 8.3% respondents were found obese level 3.

Monika Singh ; Sunita Mishra. (July 2014)

Chapter 3

Materials and Methods

3. Materials and Methods

3.1 Type of the Study

It was a survey based study.

3.2 Study Area

East West University

3.3 Study Population

In this study, University students were the study population. A total number of 300 male and female were surveyed with a questionnaire in order to assess the knowledge, perception and attitude regarding Fast-food taking status among students.

3.4 Study Period

The duration of the study was about six months from January to June in 2017.

3.5 Data Collection Method

The data was collected through questionnaire that is formed in English language. It is a questionnaire consists of multiple choice type questions. The data was collected by both face to face interview and by questionnaire supply.

3.6 Development of the Questionnaire

The questionnaire was developed based on different findings in available journal and research paper. Also from the observation of different behavior of Bangladeshi people.

3.7 Sampling Technique

In this study random sampling was followed.

3.8 Data Analysis

After collecting, all the data were checked and analyzed with the help of Microsoft Excel 2007.

Chapter 4

Result

4.Result

4.1 Admission year at EWU

Table: 4.1 Admission year at EWU

Admission year at EWU	Number	Total
2010	1	300
2011	1	
2012	10	
2013	87	
2014	68	
2015	72	
2016	32	
2017	29	

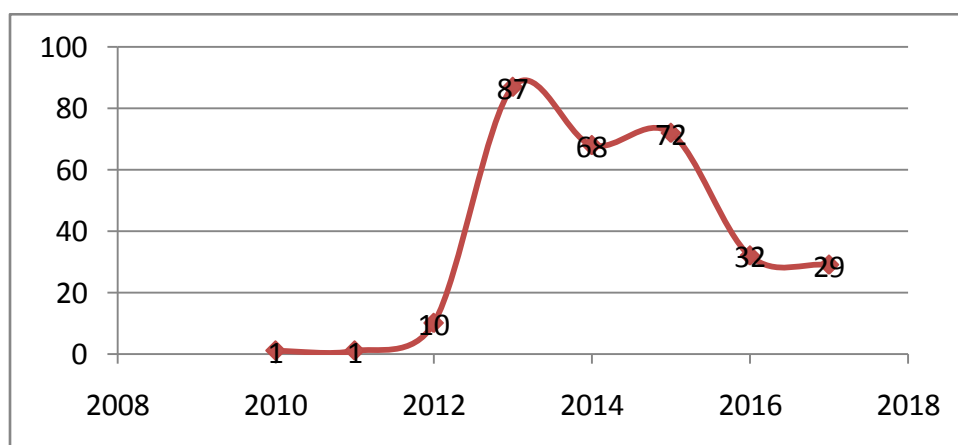


Figure 4.1: Admission year at EWU

Here the Horizontal axis represents admission year at EWU and the Vertical axis represents the number of students.

4.2 Name of the Department

Table:4.2 Name of the Department

Name of the Department	Number	Total
Applied statistics	1	300
BBA	35	
CSE	14	
ECE	4	
Economics	3	
EEE	4	
English	7	
Information and communication Engineering	1	
Information studies and library Management	5	
Pharmacy	225	
sociology	1	

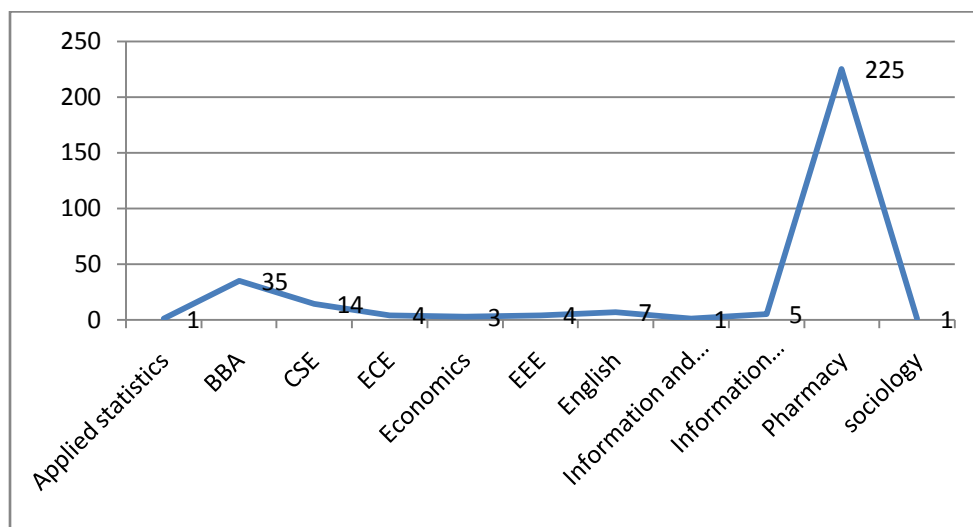


Figure 4.2: Name of the Department

Here the Horizontal axis represents Name of the Department and the Vertical axis represents the number of students. From graph we can see majority of students are from pharmacy department.

4.3 Age

Table:4.3 Age

Age	Number	Total
18	2	300
19	13	
20	30	
21	49	
22	94	
23	62	
24	34	
25	11	
26	3	
27	1	
29	1	

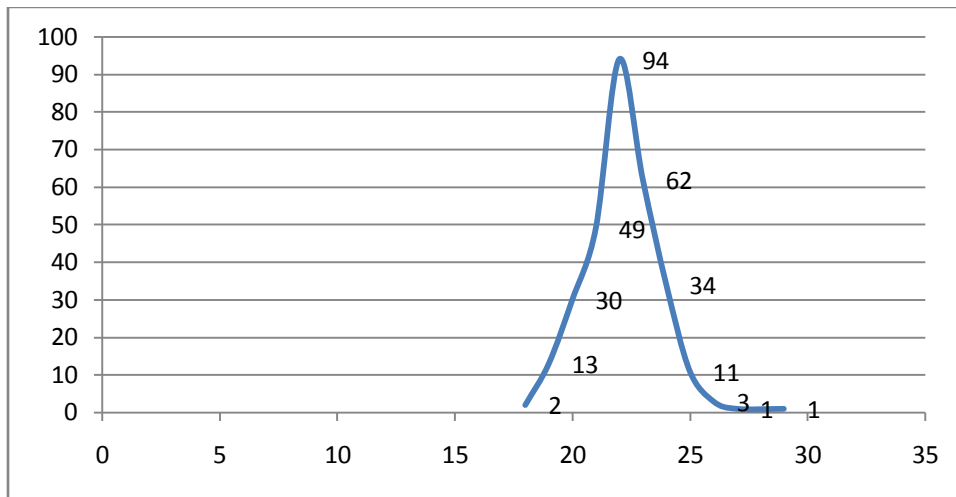


Figure 4.3: Age

Here the Horizontal axis represents Age and the Vertical axis represents the number of students. From graph we can see majority of students are 22 year old.

4.4 Gender

Table:4.4 Gender

Gender	percentage	Number	Total
Female	68%	205	300
Male	32%	95	

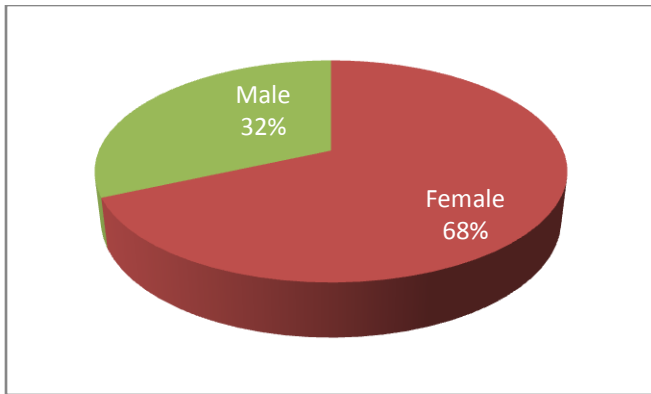


Figure 4.4: Gender

From this pie chart we can see Male is 32% and female is 68%.

4.5 Weight

Table:4.5 Weight

weight	Number	Total	Percentage
30-40 kg	10	300	3.4%
41-50 kg	79		26.3%
51-60 kg	118		39.3%
61-70 kg	60		20%
71-80 kg	23		7.7%
81-90 kg	7		2.3%
91-100 kg	3		1%

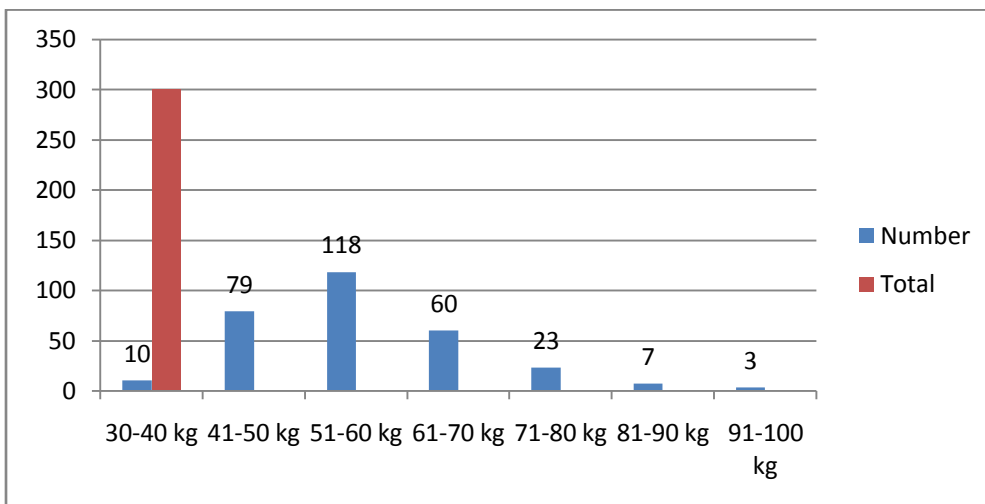


Figure 4.5: Weight

Here the Horizontal axis represents weight and the Vertical axis represents the number of students. From graph we can see majority of students are 51-60 kg.

4.6 Height

Table: 4.6 Height

Height	Number	Total	percentage
4'-4'5"	2	300	0.7%
4'6"-5'	40		13.3%
5'1"-5'5"	179		59.7%
5'6"-6'	72		24%
6'1"-6'5"	7		2.3%

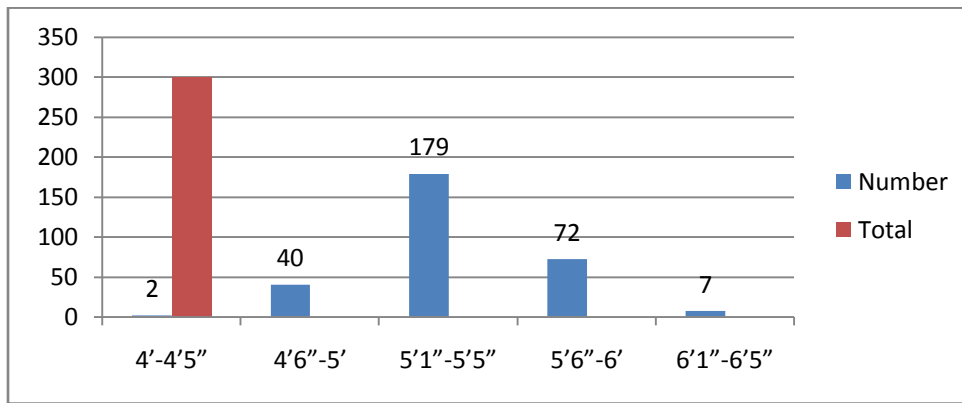


Figure 4.6: Height

4.7 Residential Status

Table:4.7 Residential Status

Residential status	Number	Total	Percentage
Alone	16	300	5%
with family	210		70%
with friends	66		22%
with relative	8		3%

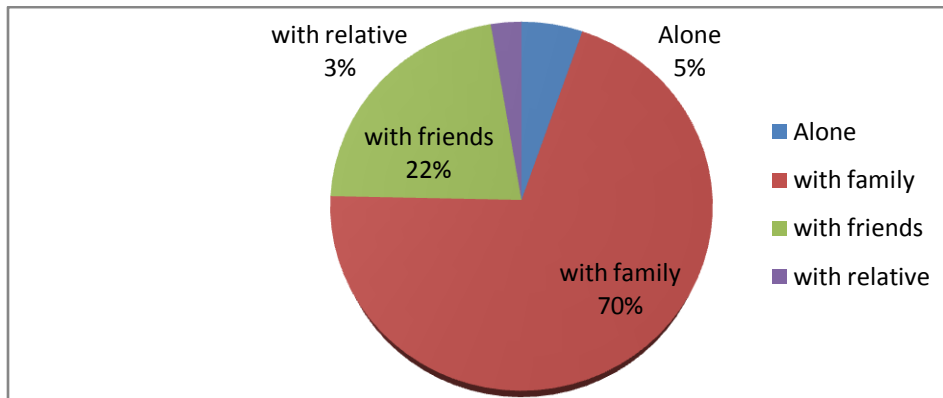


Figure 4.7: Residential Status

4.8 How much do you like fast-food?

Table:4.8 How much do you like fast-food?

How much do you like fast-food?	Number	Total	Percentage
Highly	79	300	26%
I can not live without fast-food	13		5%
I don't like	9		3%
Moderately	199		66%

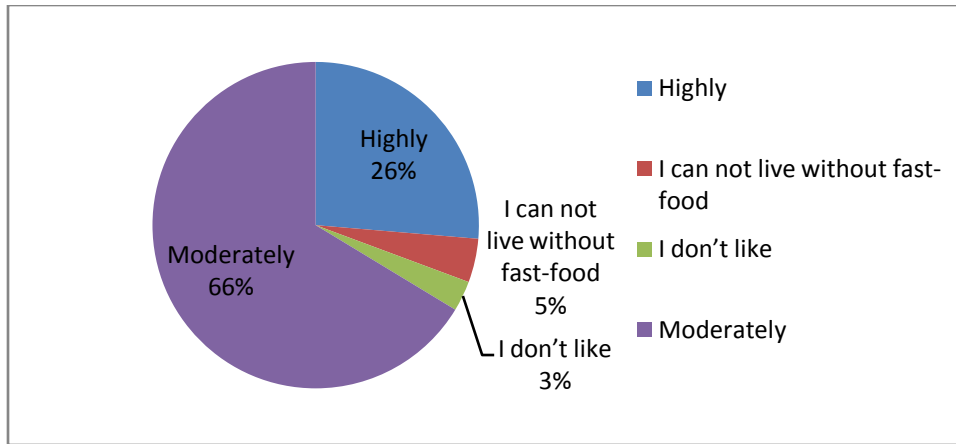


Figure 4.8: How much do you like fast-food?

4.9 How often do you eat fast-food?

Table: 4.9 How often do you eat fast-food?

How often do you eat fast-food?	Number	Total	Percentage
Everyday	50	300	16%
Few times a week	84		28%
not very often	15		5%
occasionally	65		22%
once a month	12		4%
once a week	74		25%

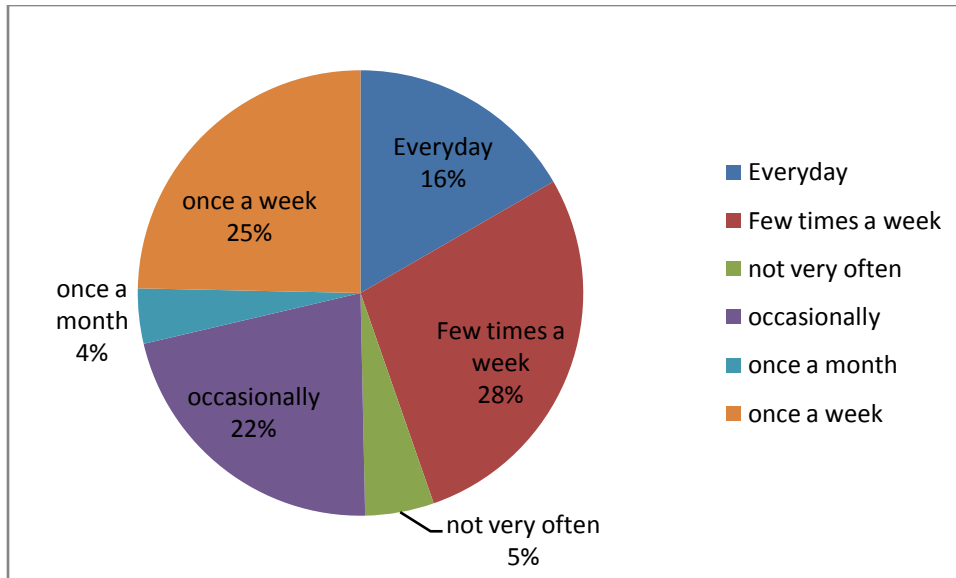


Figure 4.9: How often do you eat fast-food?

4.10 What is your favorite fast-food item?

Table: 4.10 What is your favorite fast-food item?

What is your favorite fast-food item? (you can choose as many options you wish)	Number
A cheese burger	41
A cheese burger,pizza,pasta,chicken pieces,french fries	3
A cheese burger,chicken pieces	1
A cheese burger,chicken pieces,french fries	10
A cheese burger,pizza,chicken pieces,a salad	1
A cheese burger,pizza,chicken pieces,a salad,french fries	2
A cheese burger,pizza,chicken pieces,french fries	2
A cheese burger,pizza,pasta,chicken pieces	1
A cheese burger,pizza,pasta,chicken pieces,a salad,french fries	1
A cheese burger,a salad	1
A cheese burger,chicken pieces	8
A cheese burger,chicken pieces,a salad,french fries	8
A cheese burger, french fries	1
A cheese burger, pizza	4

A cheese burger,pizza,pasta	12
A cheese burger,pasta	4
a salad	2
chicken pieces	55
	6
chicken pieces,french fries	
Chicken pieces,a salad	6
chicken pieces,a salad,french fries	2
french fries	9
	35
pasta	50
pizza	
pizza,pasta	12
	10
pasta,chicken pieces	
pasta,a salad	2
pasta,chicken pieces,a salad	1
pizza,pasta,french fries	10

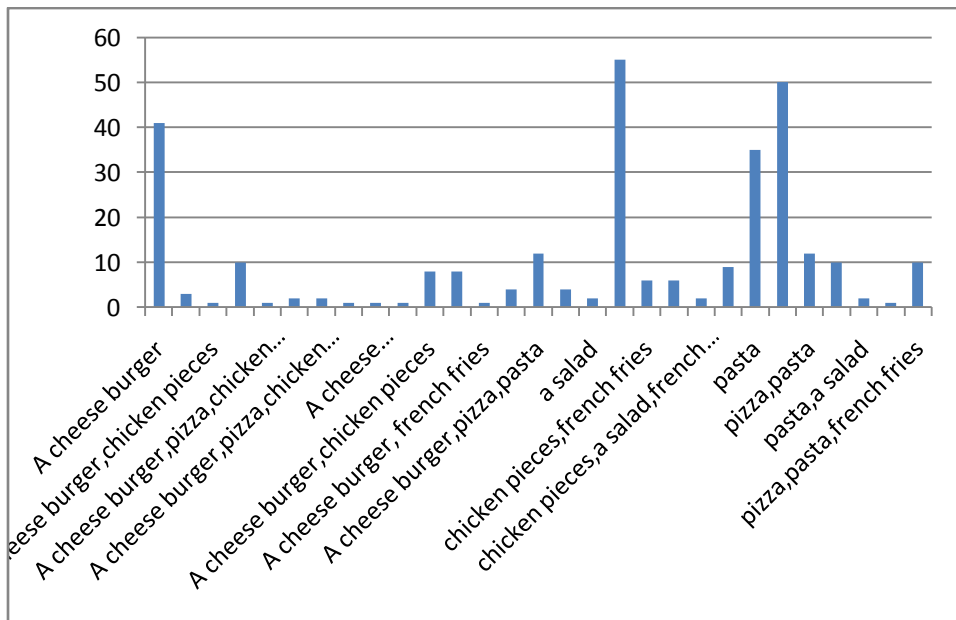


Figure 4.10: What is your favorite fast-food item?

4.11 Why do you usually eat fast-food?

Table:4.11 Why do you usually eat fast-food?

Why do you usually eat fast-food?	Number	Total
Convenient	13	300
I am too busy to cook	14	
I like the taste	205	
I like the taste,offers a variety	7	
I like the taste,convenient	1	
offers a variety	41	
offers a variety,I am too busy to cook	1	
They are quick (service)	13	
They are quick (service),convenient	1	
They are quick (service),I like the taste	2	
They are quick (service),I like the taste,convenient	2	

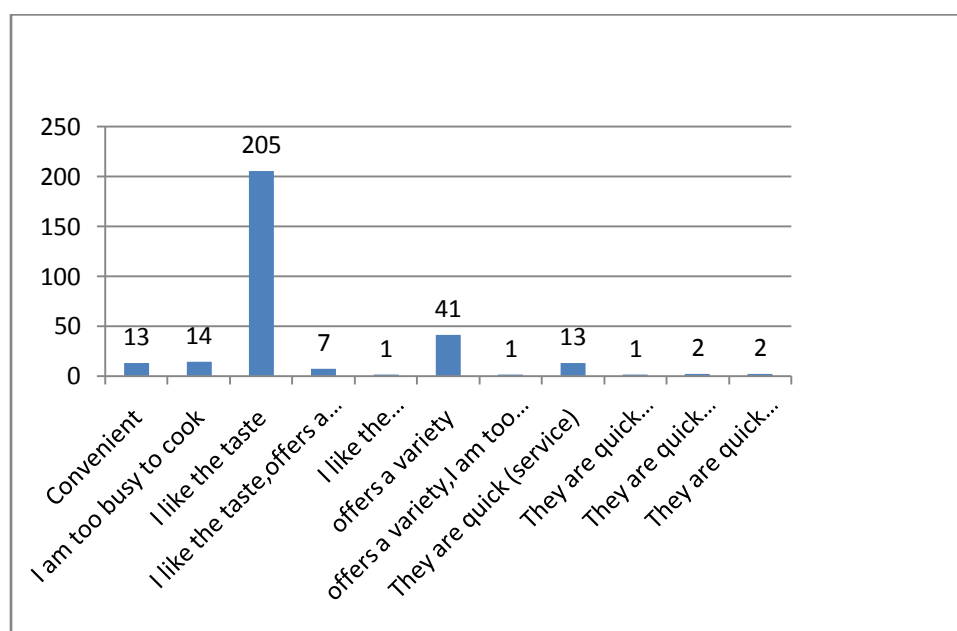


Figure:4.11 Why do you usually eat fast-food?

4.12 On average how much would you like to pay for a fast-food monthly?

Table: 4.12 On average how much would you like to pay for a fast-food monthly?

On average how much would you like to pay for a fast-food monthly?	Number	Total	Percentage
<500 BDT	109	300	36.3%
1000-2000 BDT	46		15.3%
2000-3000 BDT	14		4.7%
3000-4000 BDT	3		1%
500-1000 BDT	125		41.7%
More than 4000 BDT	3		1%

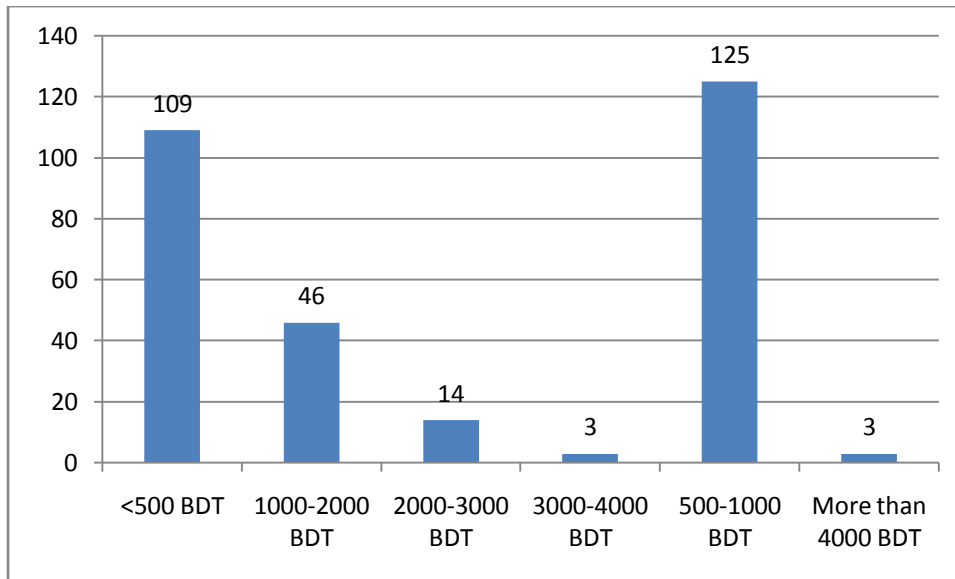


Figure: 4.12 On average how much would you like to pay for a fast-food monthly?

4.13 Do you think one can enjoy his/her life without fast-food?

Table:4.13 Do you think one can enjoy his/her life without fast-food?

Do you think one can enjoy his/her life without fast-food?	Percentage	Number	Total
No	35%	104	300
Yes	65%	196	

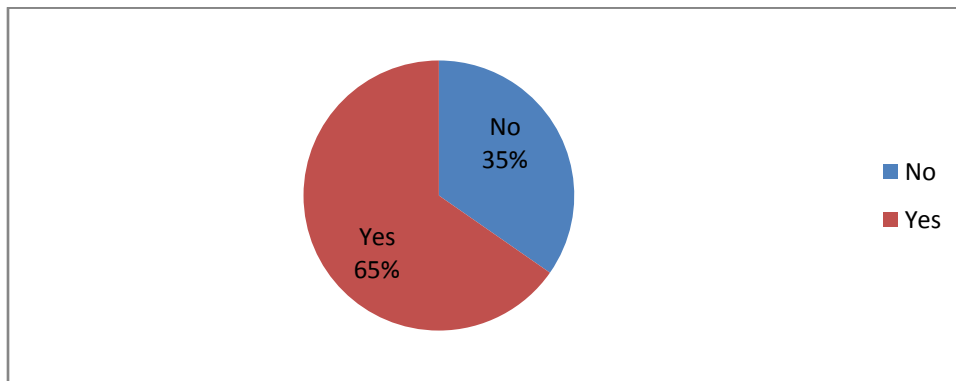


Figure: 4.13 Do you think one can enjoy his/her life without fast-food?

4.14 Do you think advertisements influence your fast-food eating behavior?

Table: 4.14 Do you think advertisements influence your fast-food eating behavior?

Do you think advertisements influence your fast-food eating behavior?	Percentage	Number	Total
no	18%	55	300
yes	82%	245	

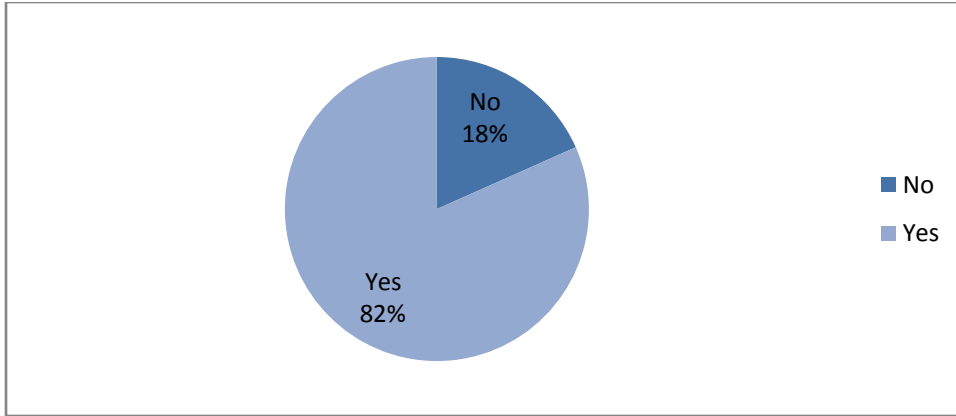


Figure: 4.14 Do you think advertisements influence your fast-food eating behavior?

4.15 Are you aware of balance diet?

Table: 4.15 Are you aware of balance diet?

Are you aware of balance diet?	Percentage	Number	Total
No	30%	89	300
Yes	70%	211	

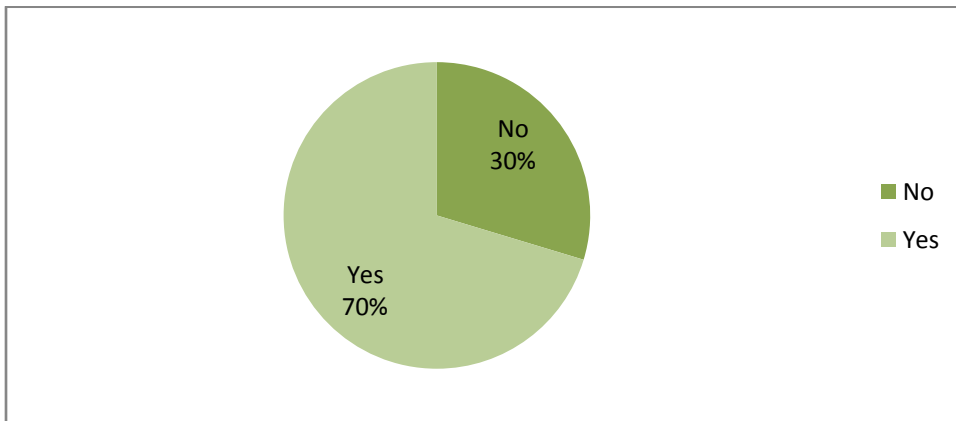


Figure: 4.15 Are you aware of balance diet?

4.16 In your opinion do you consider fast-food is healthy or not?

Table:4.16 In your opinion do you consider fast-food is healthy or not?

In your opinion do you consider fast-food is healthy or not?	Percentage	Number	Total
No	86%	259	300
Yes	14%	41	

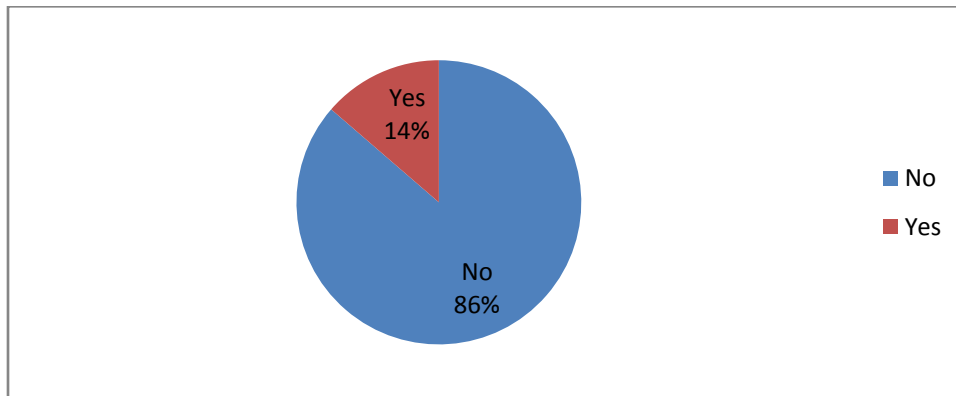


Figure:4.16 In your opinion do you consider fast-food is healthy or not?

4.17 Do you take fast-food as an alternative to breakfast?

Table:4.17 Do you take fast-food as an alternative to breakfast?

Do you take fast-food as an alternative to breakfast?	Percentage	Number	Total
No	67%	202	300
Yes	33%	98	

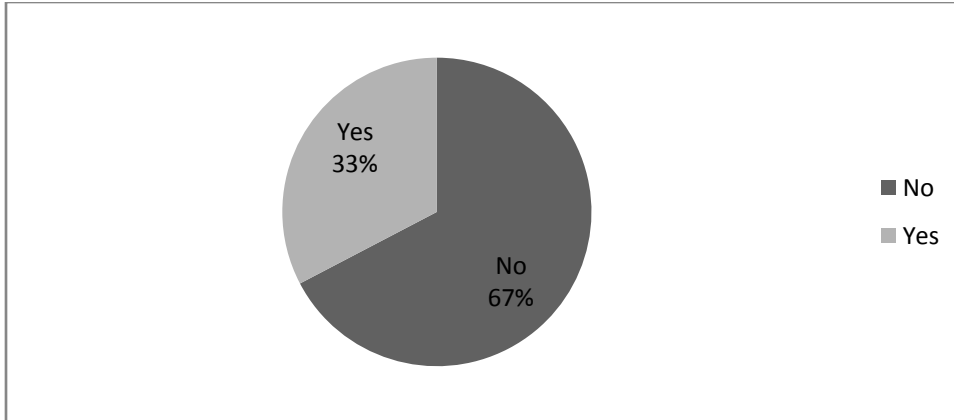


Figure:4.17 Do you take fast-food as an alternative to breakfast?

4.18 Do you feel fast-food can be detrimental to your health and body image?

Table:4.18 Do you feel fast-food can be detrimental to your health and body image?

Do you feel fast-food can be detrimental to your health and body image?	Percentage	Number	Total
No	28%	83	300
Yes	72%	217	

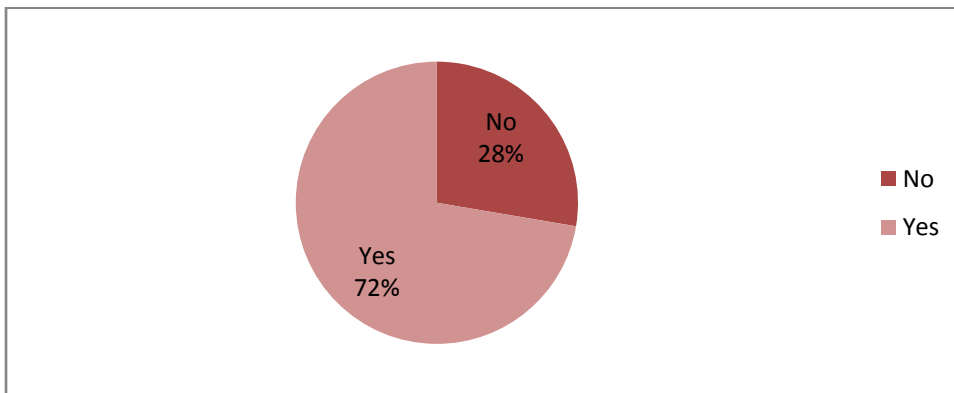


Figure:4.18 Do you feel fast-food can be detrimental to your health and body image?

4.19 Do you know consumption of fast-food is related to the prevalence of asthma and allergy?

Table:4.19 Do you know consumption of fast-food is related to the prevalence of asthma and allergy?

Do you know consumption of fast-food is related to the prevalence of asthma and allergy?	Percentage	Number	Total
No	44%	131	300
Yes	56%	169	

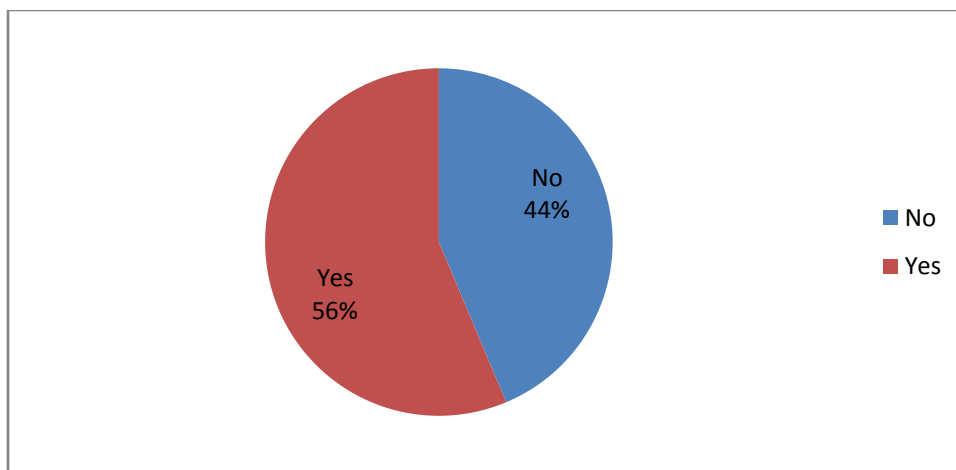


Figure:4.19 Do you know consumption of fast-food is related to the prevalence of asthma and allergy?

4.20 Do you know fast-food increases the risk of type-2 diabetes?

Table: 4.20 Do you know fast-food increases the risk of type-2 diabetes?

Do you know fast-food increases the risk of type-2 diabetes?	Percentage	Number	Total
No	28%	85	300
Yes	72%	215	

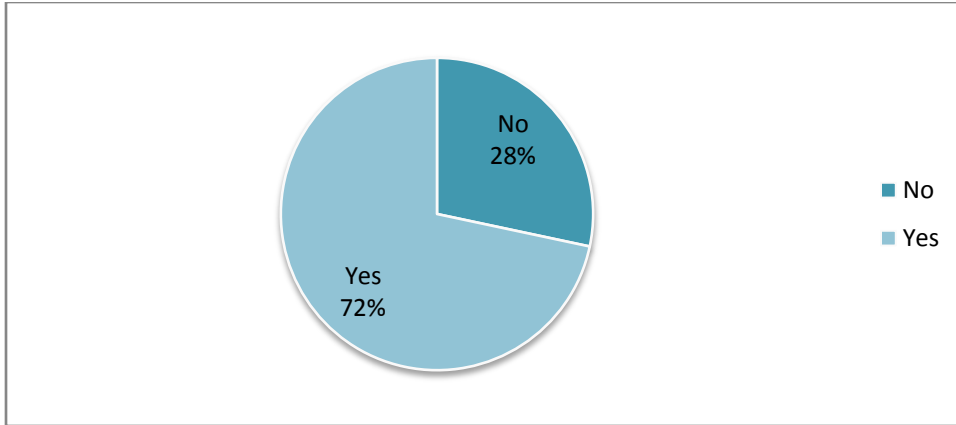


Figure:4.20 Do you know fast-food increases the risk of type-2 diabetes?

4.21 Do you think fast-food causes heart disease?

Table:4.21 Do you think fast-food causes heart disease?

Do you think fast-food causes heart disease?	Percentage	Number	Total
No	11%	32	300
Yes	89%	268	

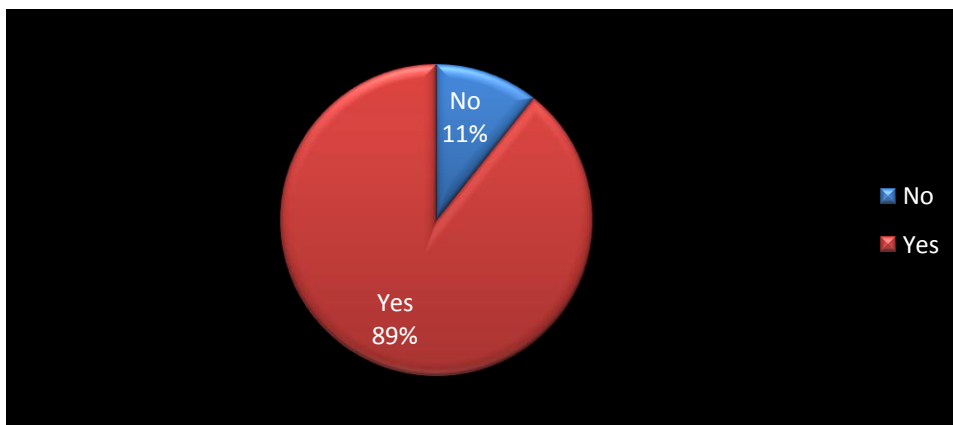


Figure:4.21 Do you think fast-food causes heart disease?

4.22 Do you really know the harmful effects of chemical present in fast-food?

Table:4.22 Do you really know the harmful effects of chemical present in fast-food?

Do you really know the harmful effects of chemical present in fast-food?	Percentage	Number	Total
No	21%	62	300
Yes	79%		

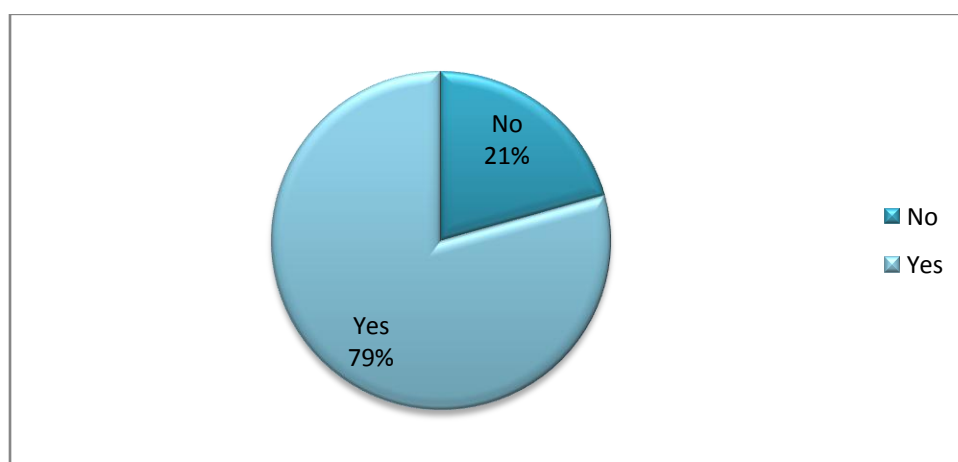


Figure:4.22 Do you really know the harmful effects of chemical present in fast-food?

Chapter 5

Discussion

5. Discussion

The survey was based on the knowledge, awareness and attitude towards fast-food. Our study conducted onto 300 students of EWU. Most of the students were between ages range 18-20 years (15%), 21-23 years (68.30%), 24-26 years (16%), 27-28 year (0.70%). About 68% population is female whereas the male was 32%. In our study majority of the students were from subject related to Pharmacy, Applied statistics, BBA, CSE, ECE, Economics, EEE, English, Information and communication Engineering, Information studies and library Management, sociology.

In our study most of the students admission year at EWU were 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017. Most of the students were between weights range 30-40 kg (3.4%), 41-50 kg (26.3%), 51-60 kg (39.3%), 61-70 kg (20%), 71-80 kg (7.7%), 81-90 kg (2.3%), 91-100 kg (1%). Most of the students were between heights range 4'-4'5" (0.7%), 4'6"-5' (13.3%), 5'1"-5'5" (59.7%), 5'6"-6' (24%), 6'1"-6'5" (2.3%). Most of the students Residential status were Alone (5%), with family (70%), with friends (22%) and with relative (3%). In our study all students informed that How much do they like fast-food Highly (26%), I can not live without fast-food (5%), I don't like (3%) and Moderately (66%). In our study we also found that how often do they eat fast-food Everyday (16%), Few times a week (28%), not very often (5%), occasionally (22%), once a month (4%) and once a week (25%). Most of the students Favorite fast-food items were a cheese burger, pizza, pasta, chicken pieces, a salad and french fries. In our study all students informed that Why do they usually eat fast-food because they like the taste (68.3%), offers a variety (13.7%), I am too busy to cook (4.7%), They are quick (service) (4.3%). From the study we notify that On average how much would they like to pay for a fast-food monthly <500 BDT (36.3%), 1000-2000 BDT (15.3%), 2000-3000 BDT (4.7%), 3000-4000 BDT (1%), 500-1000 BDT (41.7%), and More than 4000 BDT (1%). In our study 65% students thought that one can enjoy his/her life without fast-food and 35% students did not think one can enjoy his/her life without fast-food. Among the population 82% students thought advertisements influence fast-food eating behavior and 18% students did not think advertisements influence fast-food eating behavior. In our survey we found, among the responds 70% students were aware of balance diet and 30% students were not aware of balance diet. In our survey we found, 14% students considered fast-food is healthy and 86% did not consider fast-food is healthy. We found in our study that 33% students took fast-food as an alternative to breakfast and 67% did not take fast-food as an alternative to breakfast. About 72% students felt that fast-food can be detrimental to health and body image and 28% students did not feel fast-food can be detrimental to health and body image. 56% population informed that consumption of fast-food is related to the prevalence of asthma and allergy and 44% population did not know that consumption of fast-food is related to the prevalence of asthma and allergy. We notify in our study that 72% students knew fast-food increases the risk of type-2 diabetes and 28% did not know fast-food increases the risk of type-2 diabetes. In our survey we found, 89% students thought fast-food causes heart disease and 11% did not think fast-food causes heart disease. According to 79% responds of our study really knew the harmful effects of chemical present in fast-food and 21% students did not really know the harmful effects of chemical present in fast-food.

Chapter 6

Conclusion

6. Conclusion

Fast food is becoming more and more acceptable and convenient in our society. With our daily schedules, many just do not have time to prepare the food at home or go out to eat at a restaurant. Fast food restaurants also offer low price, variety and predictability. Although fast food tastes good and eating it once in a while is fine, eating fast food too frequently may result in health problems such as obesity or diabetes. The problems caused by fast food are mainly in the high sugar, salt and fat content in it. The amounts of sugar, salt and fat are too much for the body to handle, and so cause problems. The study was conducted onto East West University inside Dhaka.

Nur Farah Atiqah. (March 2016); The Robotic Foodies. (No date)

Chapter 7

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