YANGON UNIVERSITY OF ECONOMICS
MASTER OF PUBLIC ADMINISTRATION PROGRAM

A STUDY ON AWARENESS AND PRACTICES TOWARDS JUNK FOOD CONSUMPTION AMONG EXECUTIVE STAFF ATTENDING MASTER PROGRAM

(Study in Yangon University of Economics)

WIN HLAING

EMPA-71 (17th BATCH)

MARCH, 2022

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A thesis submitted as a partial fulfillment towards the requirement for the degree of Master of Public Administration (MPA)

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This is to certify that this thesis entitled "**Awareness and Practices towards Junk Food Consumption among Executive Staff Attending Master Program (Case Study in Yangon University of Economics)**" submitted in partial fulfillment towards the requirements for the degree of Master of Public Administration has been accepted by the Board of Examiners.

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ABSTRACT

Junk foods consumption is a risk factor for many chronic non-communicable diseases because it is an unhealthy food. A descriptive study was conducted by quantitative approach to assess the awareness and practices towards junk food consumption among executive staff attending master program in Yangon University of Economics in Kamayut Campus. A total of 180 respondents were chosen by stratified sampling method. Data was collected by using administered questionnaire. The result showed that over half of the respondents have acceptable level of knowledge whereas one half of the respondents have unfavorable level of attitude while majority of respondents have good practice in junk food consumptions. Moreover, it was found that there were statistically significant on associations between personal habits included alcohol drinking, suffering from obesity, and suffering from other diseases, and awareness of junk foods consumption among the respondents. The finding of this study would be a partial fulfilment of awareness of junk food consumption among working age. Moreover, school health program regarding junk food consumptions of school age and experimental researches are recommended for new researchers.

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

YUE	Yangon University of Economics
CVD	Cardiovascular Diseases
WHO	World Health Organization
NCD	Non-Communicable Diseases
SDG	Sustainable Development Goal
EMPA	Executive Master of Public Administration
EMDevS	Executive Master of Developmental Studies
EMBF	Executive Master of Banking and Finance
HFSS	High in Fat, Salt and Sugar
FDA	Food and Drug Administration
MFDBA	Myanmar Food and Drug Broad of Authority
NHL	National Health Laboratory
GMAT	Graduate Management Admission Test
NGO	Non- Government Organization
INGO	International Non- Government Organization
MOHS	Ministry Of Health And Sports

CHAPTER (I)

INTRODUCTION

Nowadays, everybody is facing with rapidly changes in diets and lifestyles due to acceleration of changes on industrialization, urbanization, economic development and market globalization. Because everybody not only has time limitation to really think what they are eating is right but also has greatly affected one's eating habits. It forced many people to consume high calorie fast foods, popularly known as Junk foods. It has a significant impact on the health and nutritional status of populations in all nations. Consumption of junk foods, unhealthy dietary practice is an independent risk factor for many chronic diseases like obesity, diabetes mellitus, Cardiovascular disease (CVD), hypertension and stroke, and life expectancy is reduced by serious health problems which are associated from obesity (Fortin & Yazbeck, 2011). Therefore, obesity is a public challenge that is increasing due to unhealthy eating habits and lifestyle changes.

In the context of world economy, junk food is a global phenomenon for over half of young people. They notice on advertising for junk foods when they used internet and the availability with low prices and marketing strategies that require neither the structure nor the preparation of a formal meal. Both young people and preschool age regularly consume junk food, candies (76 %), salty snacks (64 %), fruit flavored drinks (61 %) and fried foods (52 %). Moreover, soft drinks are consumed regularly by 44 % of them (53 % of boys) as a result of seeing advertising for junk food every day (Hovington & David, 2012). Moreover, working age groups consume Junk foods in KFC, Pizza Bugger, J' donuts, etc.

In recent years, World Health Organization (WHO) stated that non-communicable diseases (NCDs) are among the rising trend and are often caused by modifiable risk factors. Annually 4.1 million deaths of NCDs have been attributed to excess salty diet intake (WHO, 2018). That is threatening not just individual and

population health level but also national healthcare systems and social and economic development. This global problem of consuming junk food and its impact on health needs emphasis on healthy eating habits for the better living by providing health education which can greatly contribute to its limited consumption and switching over it. Therefore, one of the targets for Sustainable Development Goal is reducing early mortality from NCDs by providing comprehensive national prevention strategies, including legal, regulatory, and fiscal capacities such as taxes on sugar-sweetened beverages and unhealthy foods and drinks in 2030 Sustainable Development Agenda. Therefore, highlighting on knowledge about the eating habits, nutritional aspects, and quality of unhealthy foods, its health impact and preventive measures should be given to get awareness for a change towards good eating practices. Moreover, in the COVID 19 period, everybody must boost immune system by eating healthy diet and life style. Therefore, Junk food and its impact on health should be reviewed from various resources and should be systematically presented by doing research.

1.1 Rationale of the Study

Globally, 71% of all deaths are Non- communicable diseases in annually. Each year, it could be seen that 15 million people died with NCD are the ages between 30 and 69 years in low and middle-income countries. They were died with cardiovascular diseases which are   17.9 million people annually, followed by cancers (9.0 million), respiratory diseases (3.9million), and diabetes (1.6 million). These four groups of diseases are over 80% of all early NCD deaths (WHO, 2018). These diseases are driven by both rapid unplanned urbanization, unhealthy lifestyles and ageing population and consumption of unhealthy diet such as junk food. Therefore, NCDs was threaten by progress towards the 2030 Agenda for Sustainable Development, which includes a target of reducing premature deaths from NCDs by one-third by 2030.

In Myanmar, health-care costs for NCDs quickly drain household resources. The exorbitant costs of NCDs caused not only on long term and expensive treatment but also much loss of bread winner's forces into poverty annually and stifle development. Therefore, monitoring on progress and trends of NCDs and their risks are important for guiding policy and priorities. To lessen the impact of NCDs on individuals and society, a comprehensive approach for prevention and promotion of

NCD is needed in all sectors. Among them, educational setter is not only one of the target setters to reduce the risks associated with NCDs by providing health education from formal and informal teaching learning environment but also one of the branches of MoHS in promotion health related knowledge and prevention from illness because this setter delivers for many human resources to be effective and efficient in building nation.

In Myanmar, there are many educational centers to deliver human resources. Among them Yangon University of Economics is one of the most reliable for nation in delivering of human resources. The University offers three kinds of professional master degree programs; Full-time Master Programs, Executive-level Master Programs, and Online Master Programs. One of them, Executive-level Master Program is one of the attending programs in evening class. It has many candidates who are serving on executive level from various organizations. They are not only working in office hours but also studying in class room in their daily life. Moreover, they had not enough time to prepare for healthy diet in their working hours as long as had not enough time to eat and wait healthy food for their hungry. Because they invested their times in their work and in their education by struggling with difficulties of socio-economic such as eating, clothing, sheltering and transporting in their daily life. Therefore, it could be seem that over half the candidates solved their diet problems at their office, at their lecture room and at their campus by eating junk foods with their colleagues. They preferred easy to purchase and consume to junk foods in daily life. They changed significantly on diet patterns by substituting junk food. Because, a junk food is made in an attractive way by adding colors to enhance flavor, texture and food preservatives for increasing long shelf life (Ashakiran & Deepthi 2012).

On the other hand, although it saves time for candidates, it causes non-communicable diseases such as obesity, hypertension, diabetes and heart diseases. Therefore, the more they consume junk foods, the more they get sick. Moreover, the more they get older, the more they get chances of sick. This working age group needs to maintain the intergeneration gap by getting relevant health related knowledge regarding junk foods consumption to build healthy working environment and to help in reduction of non-communicable diseases for MoHS. Therefore, it was need to

explore the knowledge level regarding junk foods consumptions for those candidates who are attending to master programs in YUE. If they had higher knowledge level, they will get low risk in Non communicable diseases. But, concepts, relationships, lifestyles are changed to accommodate within the socioeconomic challenges to be fit and healthy for their future life. Therefore, it will needs to find out the awareness and practices of junk food consumption among all executive staff attending master courses at Yangon University of Economics in Kamayut Campus.

1.2 Objective of the Study

The objectives of the study are;

1. To find out the awareness and practices towards junk foods consumption among executive staff attending master courses.
2. To identify the association of socio-demographic characteristics and awareness of Junk Food Consumption.

1.3 Method of Study

Quantitative study, cross-sectional descriptive design was used in this study. Primary data were collected by survey method with self-administered structured questionnaire at Yangon University of Economics in *Kamayut* Campus. By using stratified sampling method, executive attending master programs in Yangon University of Economic were chosen as a sample size for this survey. Permission to allow the candidates to participate in this study was obtained from program directors. The questionnaires constructing were based on relevant of local and international study, relevant literature and background information from respective sources such as Ministry of health and sport website, Master thesis paper from YUE, published papers and relevant internet websites. After structuring the questionnaires, consult with supervisors to obtain reliable questionnaires. Data was collected by structured questionnaires have total (46) questions. It consists of four parts: socio-demographic questions, knowledge, attitude and practice questions. There were (16) questions for knowledge, (15) questions for attitude and (15) questions for practice. In knowledge questions, it marks as YES, No, and Do not Know for eating junk foods with positive questions scored as 1 mark for correct response, 0 marks for incorrect response and 0

marks for do not know response. Negative questions scored by reverse score of positive questions. Attitude question included total (15) questions by using four point Likert- type scale: 4 marks for strongly agree, 3 marks for agree, 2 marks for disagree and 1 mark for strongly disagree. Practice questions have total (15) questions and categorized by correct practice and incorrect practice. Secondary data and information were obtained from relevant books, research papers and food and drugs administration (FDA) data and reports of MoHS.

1.4 Scope and Limitation of the Study

This study mainly focused on Yangon University of Economics in Kamayut Campus by using survey questionnaires. All of the participants are master candidate who are attending to executive level of master course such as EMPA, EMDevS and EMBF in YUE. It was conducted from March 2020 to August 2020 to study the awareness and practices towards junk food consumption among executive staff attending master course in Yangon University of Economics. The result of the study was limited to generalize to other candidates especially EMBA and MAS. And also, though a structured questionnaire was employed as a collection tool for collection of primary data, pilot testing could not be carried out to calculate the reliability of questionnaire. Apart from these issues, this study was carried out properly in line with the literature.

1.5 Organization of the Study

This study was divided into five chapters. The first chapter presents about introduction to risk of non- communicable diseases regarding junk foods consumption and rationale for the study, objectives of the study, method of the study, scope and limitation of the study and organization of the study. The second chapter describes background information about history junk food, nature of junk foods, health impact on Junk foods, harmful effect of Junk food consumption, common diseases caused by junk foods and reviews on previous studies. In chapter three, Program and planning for junk foods consumption in Myanmar described and the analysis of survey data highlights in chapter four. Finally, the chapter five points out conclusion and recommendations for achieving.

CHAPTER (II)

LITERATURE REVIEW

In this chapter, junk foods are penetrating every corner of our lives from roadside corners to mall & restaurants, from college canteens to offices. Junk food is true to its name. It might give a quick and tasty bite, but all it only provides unhealthy calories and unwanted fat in the body. Long term consumption of junk food makes an individual prone to various life-threatening consequences and other health related complications. Junk food contains a high amount of oils, saturated fats, and carbohydrates. The nutritive value in junk food is very low or negligible. Due to a busy lifestyle, more and more people are getting habitual to junk food, which is leading to various chronic health diseases. Therefore, health related complication due to junk food consumption discussed in this chapter.

2.1. History of Junk Food

It's the 21st century and junk food has gone global. For better or for worse, junk food is now available all over the world. Everybody sees it most everywhere we go in grocery and convenience stores, fast-food restaurants, on television usually looking very appealing.

Junk food generally refers to foods that contribute lots of calories but little nutritional value. Of course, what's considered junk food depends on whom you ask. Some might say pizza is junk food, for example. But everybody personally doesn't think so, since it contributes real food with nutrients, like cheese and tomato sauce. Add whole-wheat or part whole-wheat crust, plus veggies as a topping, and everybody'd say pizza completely exits the junk food category (Ashakiran & Deepthi 2012).

One problem with junk foods is that they're low in satiation value that is, people don't tend to feel as full when they eat them which can lead to overeating. Another problem is that junk food tends to replace other, more nutritious foods. When

people drink lots of soda, for example, they are usually not getting plenty of low-fat dairy or other healthful beverages like green tea or orange juice. When they're snacking on chips and cookies, they're usually not loading up on fruits and vegetables.

Junk food is unhealthful food that is high in calories from sugar or fat, with little dietary fiber, protein, vitamins, minerals, or other important forms of nutritional value. Precise definitions vary by purpose and over time. Some high-protein foods, like meat prepared with saturated fat, may be considered junk food (Fortin &Yazbeck, 2011). The term HFSS foods (high in fat, salt and sugar) are used synonymously. Fast food and fast food restaurants are often equated with junk food, although fast foods cannot be categorically described as junk food. Most junk food is highly processed food. Concerns about the negative health effects resulting from a junk food-heavy diet, especially obesity, have resulted in public health awareness campaigns, and restrictions on advertising and sale in several countries (Ashakiran & Deepthi 2012).

2.2 Nature of Junk Food

Junk food comprises of anything that is quick, tasty, convenient and fashionable. Clever junk food advertising and the lure of convenience in addition to taste drag people to junk food addiction (Wilson, Crawford, Dobbins, Hardy, & Okely, 2009). Following factors generally makes it appealing:

(a) Time factor: Junk food addiction is so high because of its simplicity. They are easy to prepare and ready to consume within no time.

(b) Taste factor: Great taste also, is another important reason to an extent that influences to opt for junk food. This taste is achieved owing to lavish usage of oils, salts and/or sugar.

(c) Attractiveness: Packing of such foods has very attractive appearance by adding food additives and colors in addition to enhancement in flavor.

(d) Ad factor: Advertising has a major role in attracting the public, particularly children and adolescents to the junk food selling joints.

In 2018, Yun, Ahmad and Quee stated that Junk food, like many other things, can often be known only when everybody sees it. One can spot what might be junk food by looking at a food label including that it has little nutritional value and has: > 35% of calories from fat (except for low-fat milk), > 10% of calories from saturated

fats, Any trans-fat, $> 35\%$ of calories from sugar, unless it is made with 100% fruit and no added sugar, > 200 calories per servings for snacks, > 200 mg per serving for sodium (salt) for snacks and > 480 mg per serving for sodium (salt) for initial meal. But, in the following table, Guideline Daily Amount values showed to adjust for daily allowance of diet (Karim, 2015).

Table (2.1) Guideline Daily Amount Values

Guideline Daily Amount values			
Typical values	Women	Men	Children (5-10 Years0
Calories	2000kcal	2500kcal	1800 kcal
Protein	45g	55g	24 g
Carbohydrate	230g	300g	220g
Sugars	90g	120g	85g
Fat	70g	95g	70g
Saturates	20g	30g	20g
Fiber	24g	24g	15g
Salt	6g	6g	4g

Source: Karim, 2015

2.3 Health Impact of Junk Foods

Junk food allows people to eat without planning .eat not only when it is pre-set meal time, but also when they have spare time. Ingredients of junk foods give great taste and make them addictive. Fat and sugar in combination are capable of producing a dopamine-driven surge of intense pleasure in people with a propensity for addictive behavior. On the other side, it must be noted that they are hazardous to health too. High fat content, particularly cholesterol, sugar and salts have their adverse effects on health. Soaring calorie content with sugar can lead to obesity (Ogden, Carroll, Kit, & Flegal, 2014).

Dense sugar content can cause dental cavities and type 2 diabetes mellitus. A short-term adverse effect as a result of eating junk foods, lack of energy which occurs

because junk foods don.t provide essential nutrients, even though they can be very much sufficing, due to which one feels weakened (Maggio and Pi-Sunyer, 2003). Unfortunately, meals consisting of junk food don.t fill up for long. Because they are lacking in fiber, and are made of processed foods, they are rated high on the glycaemic index, which means they provide a quick rise in blood sugar, but this also falls quickly, and giving rise to hunger (Sharma, 2013).

Cholesterol and salt are known to setoff blood pressure, stroke and heart diseases in a chain (Wilson, Crawfard, Dobbins, Hardy, & Okely, 2009). Excessive salts can affect functioning of kidneys too. Excess fats and oils along with spices added in these foods act as an irritant to gastric mucosa leading to excess secretion of hydrochloric acid, landing in gastritis. Poor concentration is another result of junk food habit known to affect in immediate and medium term periods. When a sumptuous junk meal rich in oil is taken, there is a feeling of drowsiness and failure to concentrate. The junk food eating over a sustainably period of time can drop blood circulation due to fat accumulation. Lack of vital oxygen, nutrients and proteins particularly can stale the grey (brain) cells temporarily.

Most of the times these junk foods contain colors, which are often inedible, carcinogenic and harmful to the body. Flavorings and colorings can be allergic causing asthma, rashes and hyperactivity. Animal studies on rats have demonstrated the ill effects of consuming junk foods during pregnancy which affects the health of fetus.

2.4 Harmful Effect of Junk Food

In 2017, Yun, Ahmad and Quee stated that there are 12 reasons to avoid or lay off highly processed junk foods as follow;

a. Obesity

Junk food adds lots of calories to the body. It is a common known fact that eating junk food increases the risk of being obese. Obesity is the root cause of many

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diseases, such as diabetes, high cholesterol, high blood pressure, cardiovascular diseases, and many more.

b. Digestion Problems

Too much consumption of junk food leads the brain into a state of puzzlement. The increased amount of sugar levels causes fluctuation in the blood sugar level, which further makes the condition worse. An individual eventually feels the need to eat more food. This leads to indigestion because the digestive system is unable to handle the excessive amount of junk food consumed at one time.

c. Loss of Nutrition

Junk food causes a loss of nutrition. It does not provide any necessary vitamins or proteins. Junk foods don't have any nutritional properties, which the body requires in order to keep itself healthy. Rather, it causes fatigue, lowers the energy level, and puts the metabolism under stress.

d. Harmful Ingredients

Evidently, junk food is filled with unhealthy ingredients. What appears to be tasty is actually damaging the body. It contains a high concentration of nitrate as it is used to preserve food products from harmful bacterial attacks, which can be carcinogenic if consumed for a long period of time. Saturated fat present in junk food can increase the levels of LDL cholesterol (bad cholesterol). They also contain high amounts of sodium, used as a preservative, which is unhealthy for the body.

e. Food Standards

Most of the time, junk food does not contain fresh vegetables or other ingredients, or the method of preparation is not very healthy. The manufacturing companies use frozen components, which can be stale and might be prone to bacteria as well. Most of the time, these processed foods do not fulfill the quality standards criteria. So, it is always better to avoid these junk foods for better health.

f. Depression

The high amount of sugar and fat in junk food may cause some chemical reactions in the brain that ultimately affect its normal functioning. High consumption of junk food products leads to the loss of amino acids and nutrients that are essential for our health. This eventually leads to the brain's inability to cope up with stress, and you start feeling depressed.

g. Kidney Damage

Consuming junk food for an extended period can cause kidney diseases. The reason why anybody can hardly say no to fries or chips is that they contain a high amount of finely processed salt. This increases salivation and secretion of enzymes that enhances cravings. A high amount of bad fats and sodium (salt) content increases blood pressure and affects kidney function.

h. Makes Skindul

It is also well known that junk food affects the skin too. This is because the junk food that people eat is filled with carbohydrates that affect the sugar levels. The effect in sugar levels may increase the amount of acne on the face, along with many other problems pertaining to the body.

i. Teeth Erosion

The junk food that is consumed dreadfully affects the enamel of the teeth in the long run. Teeth are a very important part of the body, and losing or deteriorating its quality can create several problems.

j. Memory Loss

Memory loss is one of the lesser-known harmful effects of eating junk food. Some studies show that eating foods that are high in sugar and salt concentration are known to impact brain functions. The prolonged eating of junk foods can lead to memory loss. It can even cause learning and concentrating problems, especially in children and teenagers.

k. Behavioral Problems

The harmful effects of junk food on children are highly harmful. It has also been noticed that junk food causes behavioral issues in children because of unhealthy

eating habits. Junk food is low in nutrition values, when fed to children, can impact their central nervous system. Lack of proper vitamins and minerals can make them dull, lazy, and sometimes aggressive too.

l. Lifestyle Damages

Junk food is sometimes an easy way to eat. It can make people lazy and addicted to it. People tend to spend most of their time on the sofa or couch in front of the screen with junk food. This also distances them from physical activities. Moreover, whenever people feel hungry, they just prefer to grab a junk food item, which fills their stomach instantly, but again puts their health at risk.

2.5 Common Diseases Caused by Junk foods

In 2012, Ashakiran and Deepthi stated that there are thirteen common disease caused by junk foods consumption as follow;

a. Obesity

Obesity is one of the common health issues in the world and it is different from overweight. Junk food contains a high amount of carbohydrates, sugar, and sodium salt, which are cheap, hard to resist, and leads to overeating. All these increase the glucose level in the body and with no physical activity in the body; it leads to weight gain and types 2 diabetes. Over time junk and processed foods slow down the body's metabolism leading to stomach bloating and belly fats.

b. Cardiovascular Disease

Diet is an important risk factor that leads to heart diseases. Junk foods are loaded with high saturated fats that caused bad cholesterol and thus affect the heart. Fast food increases coronary heart diseases. If you keep eating junk food, the sodium found in it increases twice as fast putting your heart at risk and your body is jeopardized.

c. High Blood Pressure

Junk food contains high sugar, sodium salt, and fat content with little to no nutrition value. This increases hypertension in the blood which leads to fewer supplies of oxygenated blood into the body tissue. Thus the heart needs to pump faster in order to compensate for the need for oxygen by the body and hence give rise to blood pressure. Obesity is also linked to blood pressure because the body is rich in saturated fats that might clog the arteries and leads to uncontrol bad cholesterol level. Cortisol makes the brain to think that the body needs to store more fats and hence leading to you, consuming more and more food and not feel good about yourself.

d. Respiratory Problem

Some respiratory problems are also diseases caused by junk food. Overeating of junk foods lead to obesity and in return, obesity leads to the respiratory issue like shortness in breath and asthma. Most obese people have difficulty in doing any kind of physical activity, even as simple as walking or climbing stairs. For this reason, they put a lot of pressure on their heart and lungs leading to hypertension and respiratory problem.

e. Type 2 Diabetes

Most of the junk foods are fast and processed and are loaded with tons and tons of sodium salt and sugar which makes your sugar level rise higher than normal. In the long run, these ingredients resist the production of insulin in the body and the cells no longer respond to insulin and lead to a high sugar level in the blood. This leads to insulin resistance and hyperglycemia, where the sugar doesn't get stored in the body but rather stays in your bloodstreams, and over time it develops into type 2 diabetes. If you have type 2 diabetes, it means that your body is not using insulin properly.

f. Reproductive Issues

Some junk food contains substances called phthalates which disturb the reproductive system in the body. So, having junk food regularly for more than 3-4 times a week will link to Infertility in women.

g. Nutritional Deficiencies

This is another effect of diseases caused by junk food. Consuming too much junk food will deprive you of obtaining the right nutrition for the body. Junk foods are usually high in calories and high energy-dense foods lack proteins, calcium, iron, potassium, zinc, monounsaturated fats, vitamins A, B, C, D, and E. Hence lead to malnutrition.

h. Bones Problem

Fast food affects bone development amongst children and as well as in adults, it decreases bone density. It causes reflux of acids and may lead to tooth decay and cavity. The lack of proper vitamins and nutrients in junk food lowers bone density in the body.

i. Stress and Depress

It is scientifically proven that having too much junk food will make you feel stress and depress because it releases stress hormones on the body. At first, eating junk foods increases your dopamine; the excitement hormones which make you feel good and addicted to junk food. But when you keep on having junk food, the production of dopamine decrease, and instead cortisol, a stress hormone is produced which makes you feel stress and depress and you keep eating more.

j. Liver Problem

Junk food slows down the process of metabolism and does not improve digestion too. It leads to various gastrointestinal problems like gastric and stomach bloating to name a few. Besides, they are also loaded with saturated fats that do not get digest properly and hence accumulate in and around the liver which caused inflammation and liver damage.

k. Skin and Hair Problem

You know unhealthy food always produces unhealthy skin and hair. These foods rich in sugar and oil give rise to acne-prone skin. Even hair growth and volume

may be affected by the amount of junk food you had!. It becomes scanty and dry and may even contribute to flakes.

l. Sleeping Disorder

A sleeping disorder like apnea is another disease caused by junk food. It is the temporary cessation of breathing especially sleep. It is a condition where people wake up several times at night due to shortness of breath.

m. Peptic Ulcers

A peptic ulcer is the most common ulcer disease these days caused by acidity in the stomach that is very painful. Junk food, salty snacks, and processed food all contribute to peptic ulcers. These are the most common diseases caused by junk food but there are many which are not so popular. Children too are largely affected by junk food and food habits. Avoid given salty snacks and ready-made food to your children. Make it a habit to always eat healthy foods. Replacing your junk foods with fruits and nuts is the best possible way to live healthily.

2.6 Reviews on Previous Studies

The reviewing the literature for this study are to critically review the relevant literature in order to gain a background understanding of the information regarding consumption of junk food, consequences of eating junk food, health effect on consumption of junk food among adolescents and universities students around the international studies. However, local studies about consumption of junk food are few than international one.

Sheer, Prasad, Kumar and Sinha (2018) examined that a cross-sectional study design was to identify the factors about the junk food among undergraduate medical students of Indira Gandhi Institute of Medical Science. A total of 120 medical students were involved by using a structured questionnaire. In this study, most of the students (48.3%) were taking fast food as an alternative to dinner, 26.6% as evening snack and 21.6% as an alternative to lunch. Most preferred beverage was carbonated drinks (56.6%) while most preferred fast food was pizza (45%).75.6% students were

taking fast food 1-2 times a week. Reason for consumption of fast food was mainly eating in company (58.3%) and taste factor (55%). Hence, the effective and improved health workforce performance should be coupled with effective health education to lower eating fast food by undergraduate medical students. This study highlighted to find out the preference of candidate on junk food consumption in the YUE.

Another study, factors affecting sugar addiction behavior among high school student in Kanchanaburi province, Thailand was conducted by Jumnongkul, Mongkolchati, Buntup, Rattanapan in 2015. A total of 432 high school students were involved in the study by using cross sectional survey. A two-stage cluster sampling technique and a structured questionnaire were used to collect the data. A multiple logistic regression was used to determine the significant determinants of sugar addiction behavior among high school students. After adjusting found that BMI, acknowledge about project or campaign don't eat sugar in school and dietary pattern were significantly associated with sugar addiction behavior among high school students. Hence, the effective and improved health workforce performance should be coupled with effective health education to lower sugar addiction rate of high school student. This study emphasized to explore the sugar addiction for candidates in YUE.

Denney-Wilson, Crawford, Dobbins, Hardy, and Okely (2009) examined that the influences on soft drink and fast food consumption among adolescents as part of a cross-sectional survey of 2,719 adolescents (aged 11-16) from 93 randomly selected schools in New South Wales, Australia. Over half of the boys and more than one third of the girls reported drinking soft drink daily, and consumption peaked in Grade 8 students. A quarter of students reported choosing soft drinks instead of water or milk, and around 40% agreed that soft drink was usually available in their homes. Availability in the home and drinking soft drinks with meals was most strongly associated with consumption in all age groups. Convenience and value for money yielded the strongest associations with fast food consumption in boys, while preferring fast food to meals at home and preferring to "upsize" meals were most strongly associated with consumption in girls. This study stressed to find out the drinking soft drinks of candidates in the campus.

Zhao, Wang, Xue, Wang and Wang (2017) stated that status and risk factors for Western and Chinese fast food consumption and their associations with health

outcomes in Chinese children, and examined how maternal factors were associated with child health outcomes. Data of 1626 students aged 7–16 (11.6±2.0) years and their parents in four mega-cities across China (Beijing, Shanghai, Nanjing, and Xi'an) were collected in the 2015 baseline survey of the Childhood Obesity Study in China Mega-cities. Chinese fast food consumption rate was increased by 12% with each year. No significant associations between fast food consumption and health outcomes were detected. Adjusting for Western fast food consumption, children with lower maternal education were 71% and 43% more likely to have obesity and central obesity and 1.43 and maternal body mass index was positively associated with child obesity, central obesity, and hypertension. These results pointed out to find the rate of junk food consumption in the candidate of YUE.

Sivapriya, & Saraswathy (2014) explored the study on the consumption pattern of junk food among university students at a premiere college affiliated to the University of Madras in India. In the current descriptive cross-sectional study, 100 university girls aged 18- 22 years old were enrolled by convenience sampling method. Data were collected on Demographic profile, Dietary intake, awareness and knowledge about junk foods by using 3 day 24-hour dietary recall, a food frequency questionnaire and a checklist. Consumption of Junk food was found among percent study population. Nutrition education programmer was significant at 5 % level. Educational campaigns on healthy lifestyles among young people are advocated.

Khine Myat Maw and Piansoongnern (2014) conducted that the consumer buying behavior of fast foods in Myanmar to identify factors influencing on the consumption habit of consumer. Recently, the role of culture became important in conducting marketing and other business activities due to the advanced communication and transportation facilities which reduce the barriers between cultures as well as national boundaries. Similarly, life style of people has been also changed along with the economic development and as educational level of people increased. In order to explore the influence of culture on food consumption habit, topical Myanmar households were selected as study units. Food consumption habit was classified into spending on foods, choice of foods items, preparation of foods, and buying habits of foods. The food items chosen by the Myanmar households involved foods of other sub-cultures and international foods. It was also found that households

in the study did not cook regularly. They enjoy going out to restaurants and shopping at supermarkets.

Aung Myat Khaing, Ameen, & Isaac (2019) conducted study, Analysis of Consumption Habit on Safety and Healthy Foods at School' Canteens of Basic Education Schools to explore awareness of the students to eating habit on safety and nutritious foods, to increase school connectedness and reinforce to children, families, and community that students' health and well-being are valued and to become healthy, competent and intelligence new generations. Qualitative data collection methods were applied as Focus Group Discussion, Individual Interview and Key Informant Interview were carried out in selected 16 schools of 8 townships in 4 districts of Yangon Region, Myanmar. To fulfill research gap in food safety-related issues, the study will be utilized in the future intervention of NGOs and respective government departments' activities and used as an advocacy document for promoting and practicing the easting habit of healthy dietary behavior in school canteens.

Aung Aung (2018) studied that effectiveness of health education on nutritional awareness and practices regarding non-communicable diseases among rural community, *Ann* township, Rakhine state by using one group pre-test and post-test design and a total of 120 respondents were selected by using simple random sampling method and administering pretested structured questionnaire. In this study, most of respondents were female (66.7%), married (91.7%) and low level of education (87.5%). Major sources of health information were television and radio (57.5%). It was found that mean values of the respondents after intervention were higher than those of before intervention for knowledge (28.37 vs 56.57) ($p< 0.001$) and attitude (23.93 vs 28.60) ($p< 0.001$). There was significant association between levels of education and their awareness levels ($p<0.001$). Although health education program was improved for nutritional awareness among the respondents, malpractices and non-compliance behaviors were found in this study.

Based on the review of the previous study, many studies were focused university students. It indicated that factors influencing on the consumption habit of consumer were needed to explore in order to carry out the consumption pattern of junk food among university students.

CHAPTER (III)

JUNK FOOD INDUSTRY IN MYANMAR

The food industry begins at the farm and ends at the table that is witnessing changes and transformation. Change is inevitable since all the ingredients for growth and improvement are present, a young population hungry for more, abundant natural resources that need to be utilized efficiently, a growing international market for international products and an ideally located country between two of the rapidly growing economies, India and China. In its transition to become a 21st century economy, Myanmar now faces the advance of junk food companies trying to penetrate a market that had to starve for real hamburgers and French fries for decades, although some copycat shops in the bigger cities existed.

In today's busy lifestyle, everybody wants to get everything they need in a ready-made and quickest way. Instant coffee, instant noodle, instant food, ready-made clothes, food delivery services are increasingly popular and play a very important role in today's fast paced lifestyle. Junk food businesses are also gaining a large market share in Myanmar. In this chapter, junk food in Myanmar, Junk Food Franchises in Myanmar, Food Delivery Market in Myanmar, General Food Laws in Myanmar, Food Safety and Quality Standards in MOHS and Myanmar Food and Drug Control Center presented in the following;

3.1 Junk Food in Myanmar

Junk food is a mass-produced food that is prepared and served very quickly. Junk food is less nutritionally adequate, safe and healthy than other well-prepared and customized meals and dishes. The term typically refers to the foods sold in a restaurant or store with frozen, preheated or precooked and served to the customer in a packaged form for take away and self-service styles. With the limited time for preparing food at home, fast food consumption is significantly increasing all over the world. According to Food Institute's analysis of data from the Bureau of Labor

Statistics, millennials alone spend 44 percent of their food budget on eating out (WHO, 2018). Junk foods can generally be classified into two types; local Junk foods and foreign Junk foods according to their natures, features and service styles (Khin Myat Maw & Piansoongnern, 2014).

Local Junk foods are available from small and independent vendors running shops mostly with the carts, tables, portable grills and motor vehicles. Shop designs and types of food sold typically vary depending on the culture, tastes and preferences of local people in the country. Many local small restaurants and food stalls serve Myanmar traditional food and recipes, desserts, street food, various kinds of vegetable and meat salads, crispy glows, cold drinks, etc. They are mostly seen in crowded areas, traditional markets and near community. They are independent and can be operated with small amounts of resources and capital. They are mostly targeted local markets and are operated by local vendors.

On the other hand, foreign junk foods restaurants may be stand, restaurants chains which are mostly self-service or take away providers that promise quick service. They have indoor and outdoor seating areas where customers can have a social chat with their friends eating fast foods or customers can order and take away. In today's updated information technology world, customers can also order junk foods from their homes with smart phones and delivery-men will fill their orders in a very quick way. Common food menu lists of foreign junk foods outlets are fried chicken, chips, fried potatoes, mashed potatoes, hamburgers, hotdogs, sandwiches, pizza, bakery and pastries, donuts, cookies, bread, salads, ice cream, coffee, tea, drinks, beverages, etc. Foreign junk food outlets are running not only to serve customers with junk food but also to create an open environment for social meetings (Khin Myat Maw & Piansoongnern, 2014).

3.2 Junk Food Franchises in Myanmar

Myanmar food and drink market is very appealing. Increasing disposable income, combined with large market, increasing junk food demands and ongoing economic reforms is attracting food and drinks companies into the country. Changing lifestyles and working women also makes the junk food industry more appealing to

foreign investment. With an already successful business model elsewhere, franchising becomes an increasingly well-known business expansion strategy.

International junk food chains such as KFC are getting a large market share and South Korean franchises such as Lotteria are becoming an important part of Myanmar people. Popular foreign junk food chains include KFC, Lotteria, Pizza Hut, Burger King, Marry Brown, The Pizza Company, Ya Kun Coffee & Toast, J'Donuts, Gloria Jean's Coffees, Gong Cha, etc. These junk food chains usually expand their businesses widely through franchising strategies in emerging markets (Khin Myat Maw & Piansoongnern, 2014)..

Junk food franchises normally adjust their products and services to the local culture and mostly run their outlets not only to serve fast foods but also to create a pleasant environment for social chatting providing convenient seating places and pleasant music. These franchises significantly create employment opportunities for the local people in the host country.

3.3. Food Delivery Market in Myanmar

It is becoming increasingly easy to have your meals delivered to your home. It only takes a few clicks. But it's not a new concept. It is now possible to have your meals delivered from your favorite restaurant without the restaurant even having a delivery man. You just need internet access via your mobile, desktop or tablet and in a few clicks you can have anything delivered. This is called "Food Delivery Service". Over the years, food delivery service has taken into Myanmar as well as the living styles in Yangon are changing. In this penetration, the food industry has evolved into transformative space, combining with food delivery services which offer greater convenience and high demand of consumers.

The growth of the Myanmar's food delivery service market is supported by people's increasingly busy lifestyles and rising incomes, along with deepening smartphone and internet penetration. In accordance with the research, Yangon Door to Door, Food2U, Deliver ink, Hi-So Mall, food panda and other delivery services such as Grab Food have come in to Myanmar food delivery market (Anu-Seth, 2019).

Among them, Yangon Door2Door is one of the food delivery services which is the premier online food ordering and delivery service which was started since 2013 earlier than many food deliveries. The process is like; Yangon Door2Door picks up the completed order from the restaurant, and delivers the items to the customers through bicycles or by cars on an as-needed basis for larger orders that included everything from salted snacks like crisps to sugary sweet cakes, desserts, candy and chocolate, alongside sugary carbonated drinks, and fried fast food. Therefore, the more food delivery markets advance, the more consumers eat unhealthy food and the more they suffered from non-communicable diseases such as obesity, hypertension, diabetes and heart diseases.

3.4 General Food Laws in Myanmar

In 1997, Myanmar Law stated that Myanmar is in the process of adopting a new National Food Law, which was drafted with assistance from the United States Agency for International Development (USAID). The Department of Food and Drug Administration (FDA) under the Ministry of Health and Sports is the lead agency drafting this new Food Law, under the Food Law Committee, which includes the Ministry of Agriculture, Livestock and Irrigation; Ministry of Commerce; Myanmar Police Force; Yangon, Naypyitaw and Mandalay City Development Committees; Union Attorney General Office (UAGO); and the Ministry of Education. At present, the draft National Food Law has been submitted to the Office of the Vice President review. After review, the law will be returned to the Ministry of Health and Sports for revising and will be resubmitted to the Union Attorney General Office (UAGO) for legal advice. The new Food Law will be the general framework for regulating the production, sale, and trade of food and food products. The Law was expanded to cover all food from farm to table, and will link to other existing laws such as the Plant Pest Quarantine Law, Animal Health and Development Law, Consumer Protection Law, FDA's notifications and the minimum requirements for food manufacturing, etc. The Food Law will likely be approved in 2019. Myanmar FDA is also preparing the food regulations under this law, which currently consists of the following 15 subtitles:

1. Food Inspection

2. Food Safety Management System and Auditing

3. Imported Food Control (all food chain)

4. Food Safety Emergency Management

5. Traceability and Mechanism

6. Street Food and Restaurants

7. Other kinds of Foods (GMO, GE, and so on)

8. Food Labelling Regulations

9. Food Advertisement

10. Packaging and Packaging Materials

11. Good Hygiene Practices

12. Local Food Control Authority

13. Food Transport

14. Food Distribution and Sale

15. Catering Services

3.5 Food Safety and Quality Standards in MOHS

Myanmar is an active participant in ASEAN/Codex committees but food and drug control activities started in 1927. Food control is multisector involving exchange of information, monitoring and supervision at various stages of food production, distribution and marketing. Food and drug safety is concerned generally with the agriculture, livestock, and fishery, industry, trade and environment sectors. In recognition of the need for integration, the Food and Drug Board of Authority (MFDBA) was formed and chaired by Minister of Health in accordance with the provision of the National Drug Law, 1992. To ensure efficient and uniform control throughout Myanmar, the Food and Drug Supervisory Committee (FDSC) was formed and chaired by Director General of Ministry of Health, in 1992.

The Food and Drug Administration (FDA) is the regulatory/implementing agency for food and drug safety, guided by the above-mentioned steering bodies. Myanmar food control activities follow the Food Law (1997), Public Health Law and departmental directives and refer to Codex guidelines and standards. FDA strategies address establishing the national guidelines for food standards and specifications with

reference to the FAO/WHO Codex Aliment Arius Commission and international code of conduct. The four main tasks of FDA are health recommendations for local food manufacturing plants, health recommendations for imported and exported food, post-market surveillance and education, training and workshops concerning food safety and quality. A branch of the FDA has been functioning in Mandalay since 2000. The Food Advisory Committee, Food Orders and Directives Sub-committee and Food Technical Affairs Sub-committee were formed in 2002.

In general, the basic elements of a food safety control system started in 1927, although in many cases these were inadequate for the task of complying with food safety requirements in industrialized country markets. Although there was an established inspection system to provide health recommendations for local food manufacturing plants, these recommendations were poorly enforced. Controls on imports and the control and certification of exports were in place, but they proved to be inadequate.

To generate more effective supervision a Food and Drug Control section has been created at the National Health Laboratory (NHL). The NHL is entitled to give certificates for human consumption of imported food commodities. The certificate of food safety is compulsory for food manufacturers. The health departments of the Yangon City Development Committee, Nay Pyi Taw City Development Committee and Mandalay City Development Committee are responsible for food hygiene and food safety in their respective development areas such as approval of health certificates for food stalls, issuing licenses for food stalls, medical inspection of food handlers and conducting water and food analysis as well as training on food safety.

At present, the international food market is very cautious about health and standards to ensure safe and hygienic food. Exporting countries are increasingly and constantly demanding quality assurance. Stimulated by the recent liberalization of economic policy, food production and processing is increasing. Adaptation of manufactured foods to international standards of safety, quality and labeling will require more complete food analysis and an extended system of supervision. Moreover, MOHS followed the guidelines of National Strategic plan for prevention and control of NCDs (2017-2021) related to health promotion by reducing tobacco

use, increased intake of fruits and vegetables, reduced junk foods consumption, etc. MOHS is developing to be everyone in Myanmar lives a healthy and productive life by reducing and avoiding of disable and death due to NCDs and is building a cohesive and effective response to the burden of NCDs in Myanmar.

3.6 Myanmar Food and Drug Control Center

The Food and Drug Administration (FDA) is one of the departments under the Ministry of Health and Sports which was established in 1995. The FDA headquarter is Naypyidaw, Myanmar, and FDA is organized with major five divisions: Administrative division, Drug Control division, Food Control division, Medical Device and Cosmetic Control division and Laboratory division. Major branches are located in Mandalay and Yangon. To expand control activities, there were established branches in other Regions and States. The Myanmar Food and Drug Board of Authority were created with the following aims.

1. To enable the public to use authentic quality, safe and effective drugs
2. To register drugs systematically
3. To systematically control and regulate on manufacture, export, import, storage, distribution and sale of food and drugs (MOHS, 2014).

FDA's functions include controlling the safety and quality of foods, drugs, medical devices and cosmetics issued in the country. FDA is also responsible for issuing GMP certificates, import and export recommendations, and import and export health certificates for local food manufacturing companies. FDA's drug control activities include new product sales licenses, changes to existing licenses, quality control laboratory testing, adverse drug reaction monitoring, manufacturers and wholesalers' Good Manufacturing Practice inspection and licensing, law enforcement activities, drug promotion and advertising. FDA issues medical device notifications and import recommendations, as well as cosmetics notifications. FDA connects and works with the Custom Department, the Directorate of Trade and the Myanmar Police Force (MOHS, 2014). Whether a product should be regulated as a drug depends on the claims the manufacturer makes for the product on the product labels, leaflet or promotion materials. Claims that relate to the mitigation or treatment of disease entail that the product be regulated as a drug (DFDA, 2018).

CHAPTER (IV)

SURVEY ANALYSIS

This chapter presents the findings generated by descriptive statistical analysis of the survey data. The socio-demographic characteristics of the respondents, personal habits and their suffering diseases and their responses on questions regarding awareness and practices are depicted with relevant tables and figures. Frequency and percentages are used to report and explained in the results to be able to meet the objectives of study. In this chapter, background socio-demographic characteristics, personal habits and their suffering diseases of the respondents are presented at first with descriptive statistics such as appropriate figures and tables. Then, the relationship between study variables and background socio-demographic, personal habits and suffering disease are described with chi square tests.

4.1 Survey Profile

This survey is conducted at the Yangon University of Economics which was established as a professional institute to train economist, statisticians, accountants, and management personnel, and to do research on economic, business and statistical issues related to the Myanmar Economy. The University has three Campuses: Kamayut Campus, Hlaing Campus, and Ywa Tha Gyi Campus. The Kamayut Campus, the Original Campus, located on the shores of Inya Lake at the corner of Inya Road and Pyay Road. The Hlaing Campus is situated about one mile from the Kamayut Campus. The Ywa Tha Gyi Campus, the newly Campus established in 2000, is located 13 miles away from Kamayut Campus. In this study, the study area is Kamayut Campus of YUE.

4.2 Survey Design

In this study, a descriptive analysis is used to assess the awareness and practices towards junk food consumption among executive staff attending master course in Yangon University of Economics. Total of 180 candidates is selected as sample size and the data is collected by using structured questionnaire which includes

four parts. The first part contains (10) questions to access socio-demographic characteristics of respondents and (9) questions for personal habits and suffering diseases of the respondents. The second part consists of (16) questions which focus on knowledge about junk food consumption. The third part emphasizes on attitude toward junk food consumption which includes 4-point Likert scale for 15 questions. The final part of the questionnaire has (15) questions to assess the respondent's practice of junk food consumption.

4.2.1 Sampling Design

This study was conducted from April 2020 to July 2020. The sample population was investigated by using structured questionnaire of awareness and practices towards junk food consumption among executive staff attending master course in Yangon University of Economics. Firstly, among the three campus of YUE, Kamayut campus is purposely selected. Secondly, three executive master programme (Executive Master of Public Administration, Executive Master of Development Study and Executive Master of Banking and Finance) were selected from the campus. Finally, from each selected course, total (60) candidates were selected respectively stratified sampling method to get required sample size (180 candidates).

4.2.2 Questionnaire's Design

The survey questionnaire was used as data collection tool to assess the level of awareness of junk food consumption among master students in executive level from YUE. The questionnaire is presented in Appendix (I). In socio-demographic, personal habits and suffering diseases questionnaire, it included not only the respondent's age, gender, race, education, attending program, occupation, working hours, sitting time per hours, body weight, and height but also personal habits such as regular medical checked up, exercise, smoking habits, alcohol drinking, and coffee drinking and suffering diseases.

In the awareness session of the question, the knowledge of the respondents regarding junk food consumption was assessed by (16) questions including general knowledge, nutritive values contained in junk food and ill effects due to junk food consumption. The responses were scored as Yes "1", No and Don't know "0". In attitude session, total (15) statements included and four kinds of responses "Strongly

Agree, Agree, Strongly Disagree and Disagree" were used. The positive responses were scored as Strongly Agree "4" , Agree"3" and Strongly Disagree"2" and Disagree were scored as "1"in negative responses. The total of 15 practice questions had been answered and the score was given only for 6 out of 15.

4.3 Survey Results

4.3.1 Socio-Demographic Characteristics

Socio-demographic characteristics of respondents such as age, gender, race, body weight, Height, previous education, attending program, occupational department, working hours per day and sitting hours per day are presented as shown in Table (4.1).

Table (4.1) Socio-Demographic Characteristics of Respondents (N= 180)

No.	Variable	Categories	Frequency	Percentage
1	Age	31- 40	119	66.1
		41-50	54	30.0
		51-60	7	3.9
2.	Gender	Male	97	53.9
		Female	83	46.1
3.	Race	Burma	133	73.9
		Kayin	22	12.2
		Kachin	5	2.8
		Yakhine	9	5.0
		Others	11	6.1
4.	Previous education	Eco	44	24.5
		Basic sciences	96	53.3
		Others	40	22.2
5.	Course	EMPA	60	33.3
		EMDevs	60	33.3
		EMBF	60	33.3
6.	Occupation	Government	35	19.4
		Private	54	30.0
		NGO	73	40.6
		Others	18	10.0
7.	Working hours per day	<8hours	44	24.4
		8 hours	104	57.8
		>8 hours	32	17.8

8.	Sitting hours per day	<8hours	117	65.0
		8 hours	42	23.3
		>8 hours	21	11.7
9.	Body weight	120-140lbs	29	16.1
		141 – 160lbs	134	74.4
		161- 180 lbs	17	9.4
10.	Height	<5 '	38	21.1
		5'1" to 6'	133	73.9
		>6'	9	5.0

Source: Survey data, 2020

All (180) respondents were involved in this study during 2020-2021 academic year. Among respondents, participants of age between 31 and 40 years old are main contributor of the study and it is 119(66.1%) is the age group 31-40, 41-50 age group with 54(30%) and above 50 age group with7(3.9%) respectively. Male candidates are more attended than female candidates in the selected programs which is ((53.9%) and (46.1%). And 133(73.9%) were Bamar, 22(12.2%) were Kayin whereas only a few were Kachin, Yakhine and others. Moreover, over half of the respondents 96 (53.3%) are basic science majors, 44 (23.9%) are economic majors and 40 (22.2%) are other majors such as engineer, computer, etc. In their occupation, 73(40.6%) respondents are NGO, 54(30%) are private sector, 35(19.4%) are government and 18(10%) are own business. It could be seen that over half of the respondents (57.8%) are working eight hours per day and 117(65%) are sitting in working less than eight hours per day. Among 180 respondents, 134(74.4%) of body weight are between 141 lbs to 160 lbs and a tiny minority of respondents 17(9.4%) are above 160 lbs.

4.3.2 Personal Habits of Respondents from YUE

In the table (4.2), most of respondents 97.8% are taking medical checked and 82.2% of the respondents are doing regular exercise. Half of the respondents (45.6%) are not smoking and over half of the respondents (75%) are smoking less than five rolls per day. Moreover 62.8% of the respondents have alcohol drinking and a tiny minority of respondents (1.7%) is regularly habit of drinking. But the majority of the respondents (82.8%) are more than two cups of coffee per day and 6.1% don't drink coffee in their daily life.

Table (4.2) Personal Habits of Respondents (N=180)

No.	Variables	Categories	Frequency	Percentage
1.	Medical checked	Checked	176	97.8
		Not checked	4	2.2
2.	Exercise	Do	148	82.2
		Not	32	17.8
3.	Smoking	Yes	82	45.6
		No	98	54.4
4.	Habit of smoking	<5 rolls per day	37	20.6
		>5rolls per day	45	25
5.	Alcohol consumption	Yes	113	62.8
		No	67	37.2
6.	Habit of alcohol	Daily	3	1.7%
		Weekly	58	32.2
		Sometimes	52	28.9
7.	coffee	Yes	169	93.9
		No	11	6.1
8.	Habit of coffee	<2 cups per day	20	11.1
		>2 cups per day	149	82.8

Source: Survey data, 2020

4.3.3. Suffering Diseases of Respondents from YUE

Table (4.3) shows the suffering diseases of respondents. A minority of the respondents (7.7%) are suffering from obesity and 1.1 % of the respondents have heart disease, 1.7% of the respondents have diabetes disease, over half of the respondents (55%) are suffering from hypertension and 118(65.6%) of the respondents are suffering from gastritis, toothache, arthritis and headache.

Table (4.3) Suffering Diseases of Respondents (N=180)

No.	Variables	Categories	Frequency	Percentage (%)
1	Obesity	Yes	14	7.7
		No	166	92.8
	Heart diseases	Yes	2	1.1
		No	178	98.9
	Diabetes	Yes	3	1.7
		No	177	98.3
	Hypertension	Yes	99	55
		No	81	45
	Others diseases	Yes	118	65.6
		No	62	34.4

Source: Survey data, 2020

4.4 Total Knowledge Scores of the Respondents Regarding Junk Food Consumption

In the awareness session of the question, the knowledge of the respondents regarding junk food consumption was assesses by (16) questions including general knowledge, nutritive values contained in junk food and ill effects due to junk food consumption. Out of 16 questions, knowledge score was given for only 12 questions including 43 items and maximum given scores was 43.

Table (4.4) Total Knowledge Scores of the Respondents Regarding Junk Food Consumption (N=180)

n =180	Minimum	Maximum	Mean	SD
Total knowledge scores	22	38	29.54	2.71

Source: Survey data, 2020

According to the table (4.4), responses of the respondents, the minimum score was 22 and maximum score was 38. The mean score was 29.54.

4.4.1 Knowledge level of the respondents regarding junk food consumption

Total knowledge score was categorized into three groups. The scores below 28 were taken into account as low level of knowledge; the score between 29 and 33 was identified as acceptable level of knowledge and the score above 34 was high level of knowledge.
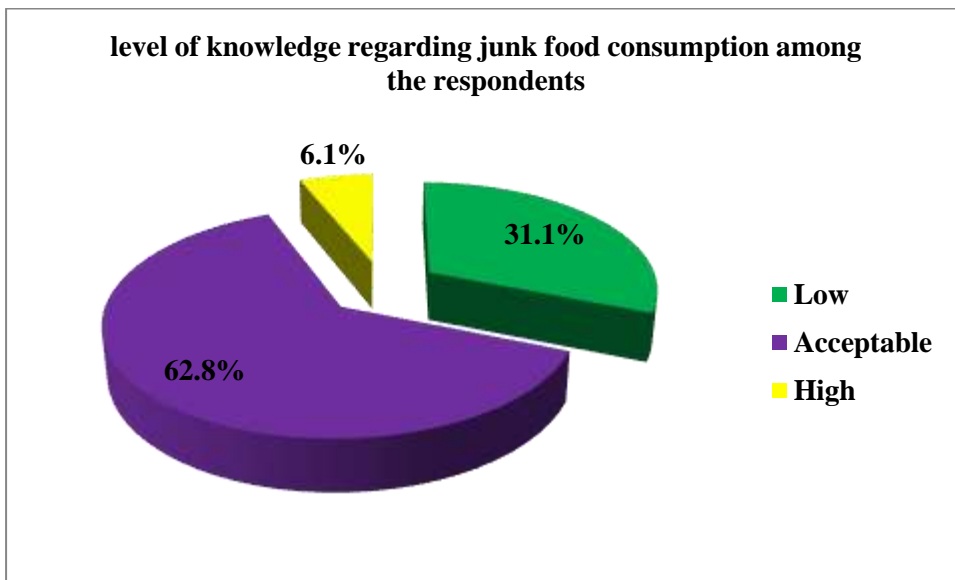
Figure (4.1) Knowledge Level of the Respondents Regarding Junk Food Consumption

As presented in figure (4.1), it could be seen that only 56(31.1%) of the respondents had low level of knowledge on junk food consumption, 113(62.8%) had acceptable level of knowledge and 11(6.1%) had high level of knowledge.

4.4.2 General Knowledge of the Respondents Regarding Junk Foods

In this portion, the questions concerned the definition of junk food and its' characteristics were included. As shown in table (4.5), the majority of the respondents 144(80%) correctly stated that definition of junk foods, 36(20%) stated that it was incorrectly the definition of junk food. Therefore, they had higher in general knowledge with junk foods. The majority of the respondents are 79.4% and 83.9% of corrected in the statement of "Tasty and good smell" and "attractively packaging". Moreover, 85.6 % of the respondents stated that it was appetizing and 90% of the respondents save in the statement of meal length, and ready to consume respectively and 55% of the respondents corrected in save cost. Especially, over half of the

respondents 65.6% (118) correctly answered the reversed question "junk food consumption is healthy". According to the survey data, the majority of the respondents had higher in general knowledge of junk foods as shown in table (4.5).

Table (**4.5**) **General Knowledge of the Respondents Regarding Junk Food (n=180)**

Q. No	Statement	Correct		Incorrect	
		n	%	N	%
1	**Junk food** is unhealthful food that is high in calories from sugar or fat, with little dietary fiber, protein, vitamins, minerals.	144	80	36	20
3.	Junk foods are- a. Tasty and good smell	143	79.4	37	20.6
	b. attractively packaging	151	83.9	29	16.1
	c. Appetizing	154	85.6	26	14.4
	d. Healthy*	118	65.6	62	34.4
	e. save meal length	162	90	18	10
	f. save cost	99	55	81	45

Source: Survey data, 2020

*Reversed question,

4.4.3 Knowledge of the Respondents Regarding Nutritive Values of the Junk Food

Regarding basic knowledge on nutritive values of the junk food, over half of the respondents correctly answered that the junk food contained protein, fat, and sodium chloride by 68.9%, 66.1 % and 56.7% respectively. However, 38.9%, one third of the respondents correctly answer whether junk food contains sugar and 42.8**%** of the respondents didn't know correct answer which statement of junk food contains multi-vitamins. For another knowledge question about nutrient group, almost half of the respondents chose the incorrect answer in nutrient group. Among them

50.6% correctly answered on disease causes by consuming junk foods as shown in table (4.6).

Table (4.6) Knowledge of the respondents regarding nutritive values of the junk food (n=180)

No	Statement	Correct		Incorrect	
		n	%	n	%
1.	Which nutrients include in junk foods?				
	(1) Protein*	124	68.9	56	31.1
	(2) Fat	119	66.1	61	33.9
	(3) Sugar	70	38.9	110	61.1
	(4)Sodium chloride	102	56.7	78	43.3
	(5) Multi-vitamins*	77	42.8	103	57.2
2.	Junk foods are included in the following nutrient group-				
	(1) Body growth and development*	82	45.6	98	54.4
	(2) Improving immune to prevent from disease*	88	48.9	92	51.1
	(3) Energy producing nutrients*	105	58.3	75	41.7
	(4) Cause disease	91	50.6	89	49.4

Source: Survey data, 2020

*Reversed question

4.4.4 Knowledge of the Respondents Regarding Effects on health by Consumption Junk Foods

In consistent with this portion, there were four questions. In the negative question stating that eating junk food is healthy behaviors, 180 respondents (100%) gave correct answer. As well, there were only 39.4% of the respondents who answered that junk food consumption had no effects on body weight. But, they were answered the majority of the respondents (88.3%) that junk food consumption can cause on weight loss which they were chose in negative question. Therefore, they had higher knowledge effects on health by junk food consumption.

Regarding knowledge on diseases due to junk food consumption, all of them (100%) have knowledge about junk food consumption caused hypertension, cardiac disease, diabetes, obesity and cancer respectively. Moreover, regarding the harmful ingredients contained in junk food, all respondents (100%) chose "Dye" and "Preserved chemical material". However, over half of the respondents (50.6%) and (60%) of the respondents did not give correct answer that some junk food contained melamine and starch as shown in Table (4.7).

Table (4.7) Knowledge of the Respondents Regarding Effects on Health by Consumption Junk Foods (n=180)

Q. No	Statement	Correct		Incorrect	
		n	%	n	%
10.	Junk food can cause following effects on body weight.				
	(1) Obesity	64	35.6	116	64.4
	(2) Weight loss*	159	88.3	21	11.7
	(3) No effects*	34	18.9	146	81.1
12.	Eating junk food is healthy behaviors. *	180	100	-	-
13	Junk food consumption cause-				
	(1) Hypertension	180	100	-	-
	(2) Diabetes Mellitus	180	100	-	-
	(3) Obesity	180	100	-	-
	(4) Cardiac disease	180	100	-	-
	(5) Cancer	180	100	-	-
15.	Which of them in junk food harm on our health?				
	(1) Melamine	91	50.6	89	49.4
	(2) Dyes	180	100	-	-
	(3) Starch	108	60	72	40
	(4) Preserved chemical material	180	100	-	-

Source: Survey data, 2020

*Reversed question

4.5 Attitude of the Respondents Regarding Junk Food Consumption

In attitude session, total (15) statements included and four kinds of responses "Strongly Agree, Agree, Strongly Disagree and Disagree" were used. The positive

responses were scored as Strongly Agree "4" , Agree"3" and negative responses, Strongly Disagree"2" and disagree were scored as "1".

Table (4.8) Total Attitude Score of Respondents Regarding Junk Food Consumption

n =180	Minimum	Maximum	Mean	SD
Total attitude scores	34.00	42.00	38.47	2.20

Source: Survey data, 2020

According to the table (4.8), the attitude score of the respondents was ranged from minimum 34 to maximum 42 while the highest score was 60 given marks. The mean attitude score of the respondents was 38.47.

4.5.1 Level of Attitude Regarding Junk Food Consumption

According to the survey result, the attitude scores were divided into two groups: "Good attitude" and "Unfavorable attitude" by mean score (38.47).
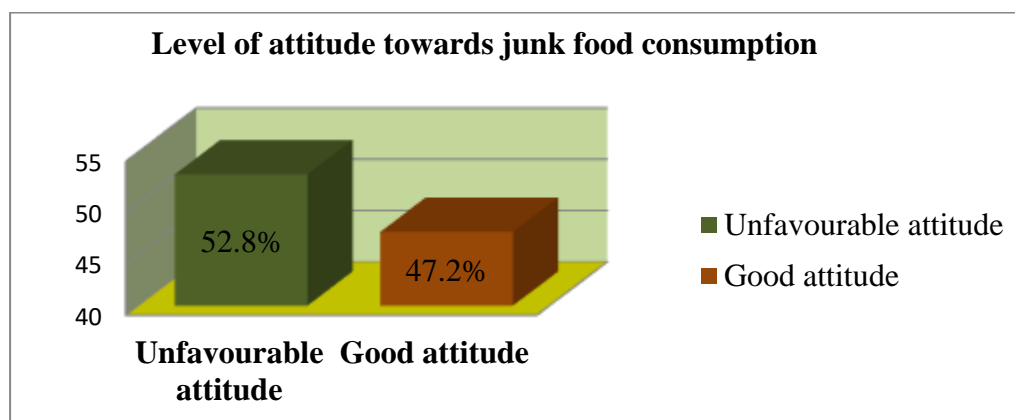
Figure (4.2) Level of Attitude Regarding Junk Food Consumption (n=180)

In the presents figure (4.2), finally, 47.2 % of the respondents (n=85) was at the good attitude level and 52.8 % of the respondents (n=95) was at unfavorable attitude level.

4.5.2 Attitude Question Regarding the Reasons of Junk Food Consumption

In the attitude survey, there were divided into three groups such as attitude towards reason, effects on health and prevention on consumption. In attitude towards

the reasons why they preferred to consume junk food, one of the respondents had negative attitude. The respondents rated the items based on 4-point Likert-type scale: 1= Strongly Disagree, 2= Disagree, 3= Agree and 4= Strongly Agree. The results were analyzed by using the SPSS version 21.0. A table (4.9) includes the response question, their numbers and mean (M) scores. If the mean (M) was greater than overall mean (2.85) on survey items it was described as potentially most of respondent's reason of junk food consumption. A table (4.9) showed that four items had a mean greater than 2.85. Therefore, they have good attitude in reason of junk foods consumption.

Table (4.9) Attitude Question Regarding the Reasons of Junk Food Consumption

No	Statements	Mean
1.	When everybody hasn't enough time to eat meal, they eat much junk food.	3.02
2.	Everybody like Junk food that is an attractive package	3.22
3.	If Junk food is not consumed, I will be outdated. *	3.15
4.	Junk food is good for lunch.	2.00
Overall Mean		**2.85**

Source: Survey data, 2020

*Reversed question

4.5.3 Attitude towards Effects on Health by Junk Food Consumption

As shown in table (4.10), majority of the respondents have positive attitude towards ill effects on health. In attitude of the respondents regarding junk food consumption, a mean (M) greater than overall mean (1.14) in the statement "Junk food consumption harms on our health" and "Junk food consumption have not effects else". As well as, in the another response, a mean (M) less than overall mean in "Junk foods are more nutrient than other foods on our health", and "Preserved chemical materials in junk food don't harm on our health". Therefore, they have good attitude in effects on health by junk food consumption.

Table (4.10) Attitude towards Effects on Health by Junk Food Consumption

No	Statements	Mean
1.	Junk food consumption is harmful on our health.	1.22
2.	Junk foods are more nutrient than other foods for our health.*	1.10
3.	Junk food consumption have not effects on health else.*	1.25
4.	Preserved chemical materials in junk food don't harm on our health. *	1.00
Overall Mean		**1.14**

Source: Survey data, 2020

*Reversed question

4.5.4 Attitude towards Prevention of Eating Junk Food

As shown in table (4.11), there were six statements to assess the respondents' attitude towards prevention of junk foods. In the statements, an overall mean (3.48) of each items was greater than overall mean that showed their good attitude in statement; "Junk food consumption should be restricted due to its ill effects", "Selling on different types of junk food should be inhibited in our campus", "The junk food should be labeled "harm" on its package whenever being advertising" and . "Health education talk should be advanced to control the junk food consumption". On the other hands, an overall mean (3.48) of two items was less than overall mean which statements are "Potato chips, Hamburger and cold drink support on our health" and "Junk food consumption should be absolutely avoided." These findings of the statements reflect on unfavorable attitude prevention of eating junk foods.

Table (4.11) Attitude towards Prevention of Eating Junk Food

No	Statements	Mean
1.	Potato chip, hamburger and cold drink support on our health.	1.90
2.	Junk food consumption should be absolutely avoided.	2.97
3.	Junk food consumption should be restricted due to its ill effects.	4.00
4.	Selling on different types of junk food should be inhibited in our campus.	4.00

5.	The junk food should be labeled "harm" on its package whenever being advertising.	4.00
6.	Health education talk should be advanced to control the junk food consumption.	4.00
Overall Mean		**3.48**

Source: Survey data, 2020

*Reversed question

4.6 Total Practice Scores of Respondents Regarding Junk Food Consumption

In this study, the practices of the respondents regarding junk food consumption was asked by frequencies of eating junk food per day, the conditions to eat junk food, when they consume and which junk food thy prefers.

Table (4.12) Total Practice Scores of Respondents (n=180)

n =180	Minimum	Maximum	Mean	SD
Total practice scores	3.00	6.00	5.02	0.81

Source: survey data, 2020

In the table (4.12), the total of 15 practice questions had been answered and the score was given only for 6 out of 15. The mean score was 5.02 ± 0.81 out of 6.

4.6.1 Level of Practices Regarding Junk Food Consumption

In order to identify the level of practices, "Good practice" was identified to the scores above mean and "Poor practice" was identified to the scores below mean. The following figure described the practice level of respondents which were divided into poor and good practice by mean scores of statistically.
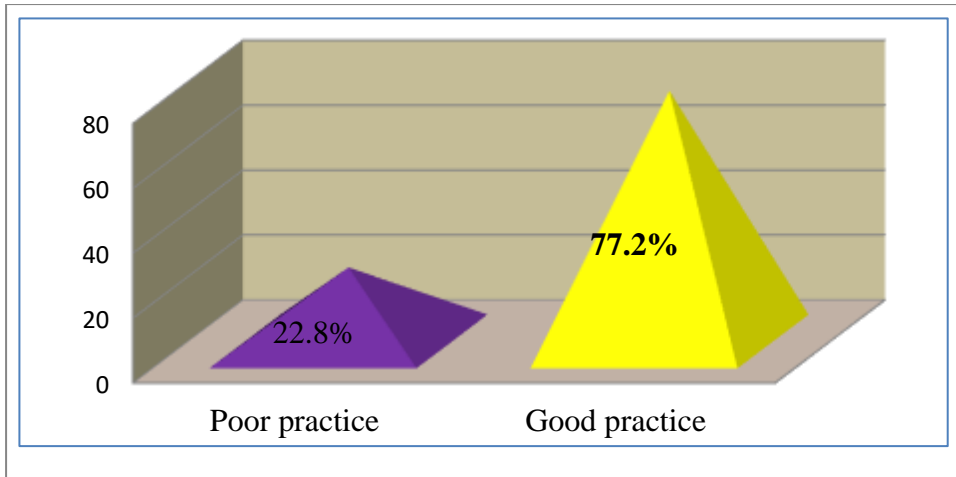
Figure (4.3) Level of Practice Regarding Junk Food Consumption

As a result, 77.2% of the respondent was at good practice level and 22.8% of the respondent was at poor practice level.

4.6.2 Practices for Junk Food Consumption

According to the statistically data, all the respondents (n=180), have the habits of consumption junk food.

Table (4.13) Practices for Junk Food Consumption (n=180)

Statement (n=180)	Yes	No
Do you have any habits of eating junk food?	97(100%)	83(100%)
Sometimes, I eat junk foods for lunch and dinner.	141(78.3%)	39(21.7%)
Sometimes I drinks energy drinks when I am tired and thirsty	155(86.1%)	25(13.9%)
Sometimes I eat junk food for my lunch when I am busy.	164(91.1%)	16(8.9%)
I checked the expired date and the quality of the junk foods	97(100%)	83(100%)

Source: survey data, 2020

4.6.3 The Most Common Type of Junk Food Consumed By The Respondents

In assessing the most common type of junk foods consumed by respondents, (47.2%) respondents used to eat fried potato, (16.1%) in fried chicken, (13.9%) in energy drink. Moreover, there was (22.8%) who used to other junk foods.

40
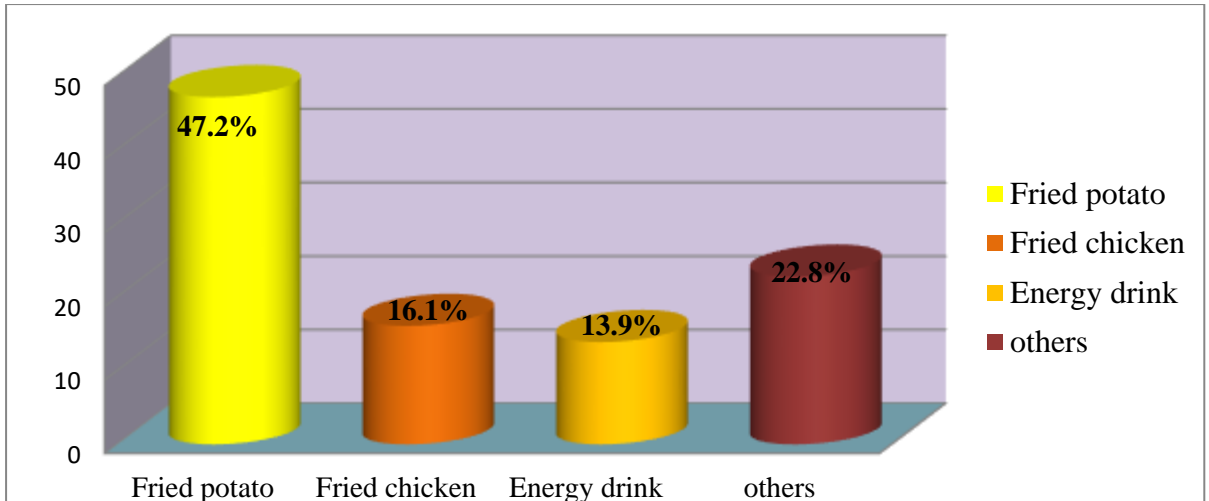
Figure (4.4) Distribution of the Most Common Type of Junk Food Consumed By the Respondents

4.6.4 Respondent's Consuming Times on Junk Food per Week

In identifying Respondent's Consuming Times on Junk Food per Week, the number of respondents who eat junk food two times and three times per week was 18.9% respectively. The number of respondents who eat junk food four times per week was 33.3% and 28.9% is the number of respondents who eat junk food 5 times per week.
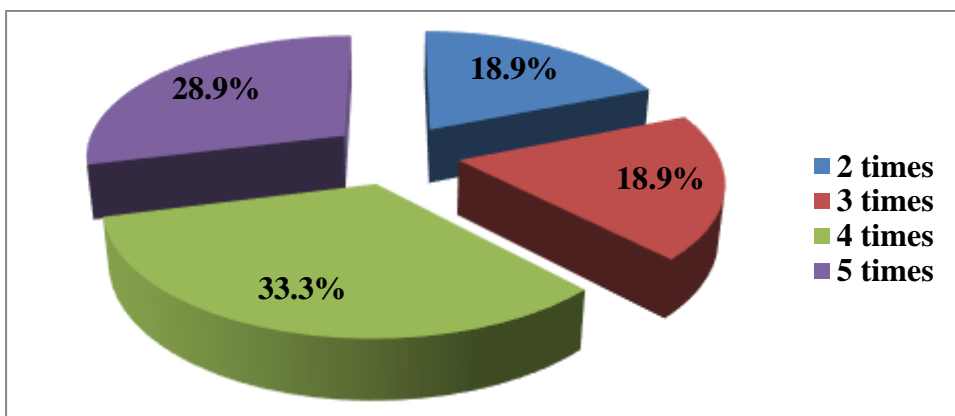
Figure (4.5) Respondent's Consuming Times on Junk Food per Week

4.6.5 Consuming Of Junk Foods with Someone

In calculating the person of eating junk food, the most students together ate the junk food at the time of discussion with their friends, the fewer students ate them at the time of reading and some of the student ate with their family.
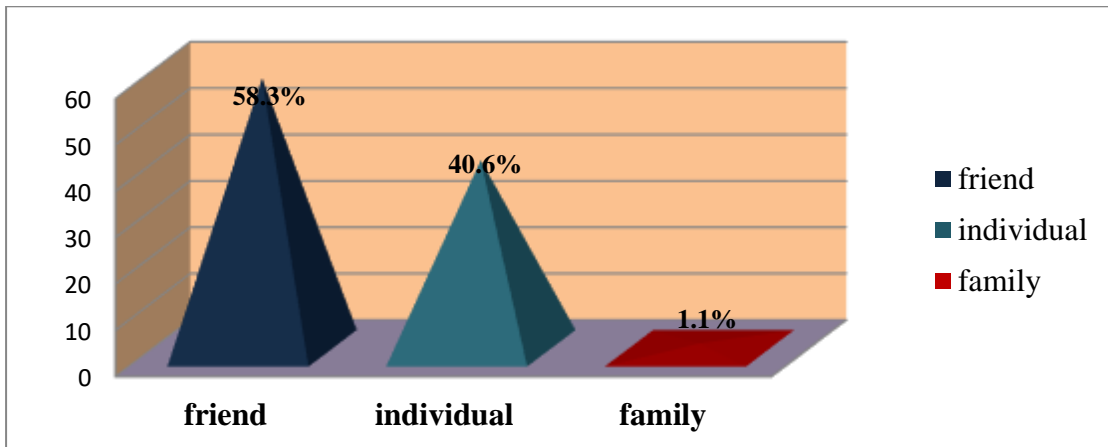
Figure (4.6) Consuming Of Junk Foods with Someone

In the figure (4.6), 58.3% of respondents were the candidates who ate junk food when chatting with their friends, (40.6%) of respondents was the students who ate them at the holiday, (1.1%) of respondents was the students who ate with family when watching television.

4.6.6 The most Consumption time of Junk Foods by Respondents

In analyzing the most consumption time of junk food, the most students ate the junk food at the time of chatting with their friends and the fewer students ate them at the time of vacation

Table (4.14) The most Consumption time of Junk Foods by Respondents

Statement (n=180)	Frequency	Percentage
When do you most consume in the following; (a) television time	21	11.7%
(b) Reading time	25	13.9%
(c) Talking on conversation	48	26.7%
(d) Vacation time	57	31.7
(e) Break time in lecture room	29	16.1

Source: survey data, 2020

.Above the table (4.14), 26.7% of respondents were the candidates who ate junk food when chatting with their friends, 31.7% of respondents was the students who ate them at the holiday, 16.1% of respondents was the students who ate at the break time, 13.9% of respondents was the students who ate junk food at the time of reading and the last 11.7% of respondents was the students ate when watching television.

4.6.7 Type of Junk Foods within the Campus

In assessing type of junk foods within the campus, the most selling junk foods were energy drink, 52.8%, other snacks, 25.6 %, and "fired potato, 21.7%, respectively.
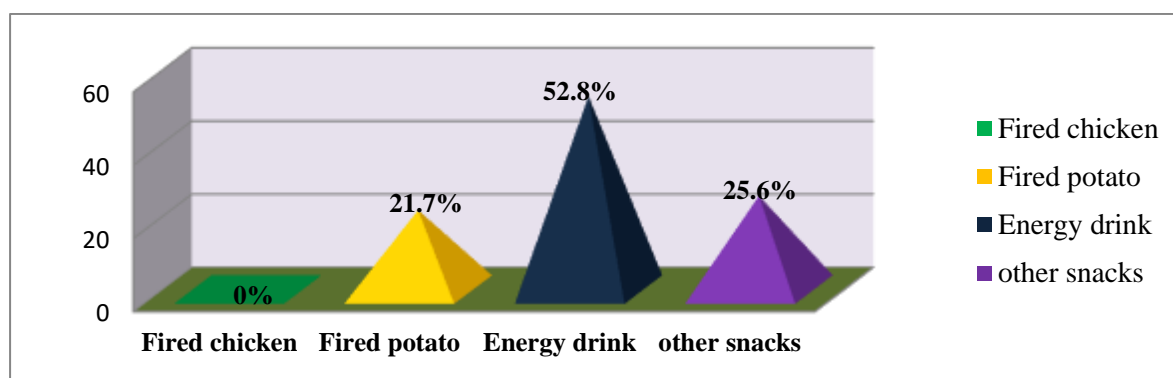
Figure (4.7) Type of Junk Foods in the Campus (n=180)

4.6.8 Reasons of Eating Junk Foods

In identifying reasons of eating junk foods, many of the candidates ate on junk foods with many reasons.

Table (4.15) Reasons of Eating Junk Foods

Statement (n=180)	Frequency	Percentage
You eat junk foods because of; the following		
(a.)Being favorite	11	6.1%
(b.) Being popular	15	8.3%

(c.) Easily full	18	10%
(d.) Less time consuming for meal	59	32.8%
(e.) Cheaper than healthy food	10	5.6%
(F.)Good advertising	10	5.6%
(g.)Easy to eat	28	15.6%
(h.) Reducing stress	14	7.8%
(i.) Others	15	8.3%

Source: survey data, 2020

In the table (4.15), the most common reason was less time consuming for 32.8%, easy to eat for 19.5%, easily full for 10%, being popular for 8.3%, others for 8.3%, reducing stress for 7.8%, being favorite for 6.1%, good advertising for 5.6% and low cost for 5.6% respectively.

4.6.9 Food Shops Preferred By the Respondents
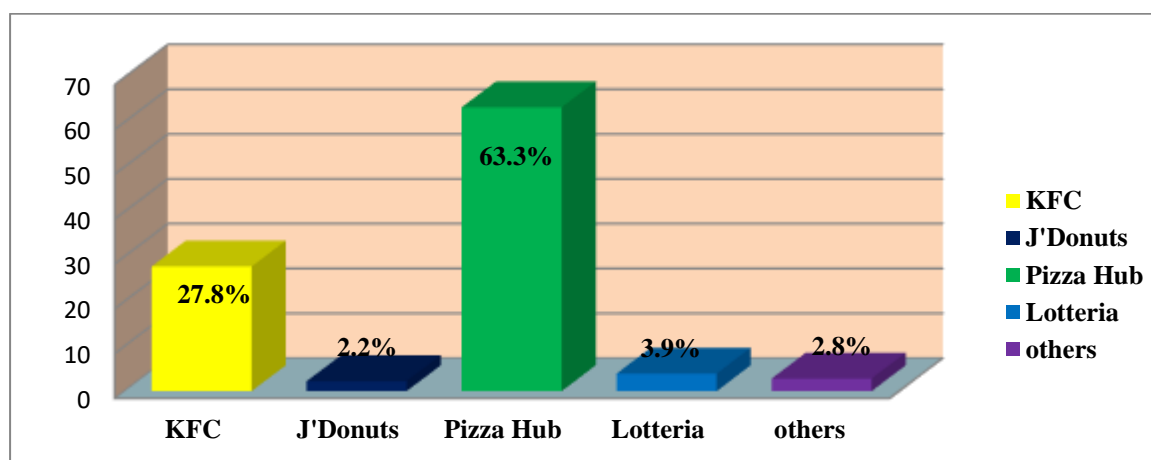
Figure (4.8) Food Shops Preferred By the Respondents

According to this question, the most favorite food shop by the respondents was "KFC" (27.8%, n=50), "J Donut" (2.2%, n=4) and "Pizza Hub" (63.3%, n=114), Lotteria (3.9%, n = 7) and "other shops" (2.8%, n=5).

4.7 Association between Socio-Demographic, Personal Habits, Suffering Diseases and Awareness on Junk Food Consumption

A measure of association quantifies the strength or magnitude of the statistical association between an exposure and outcome. Measures of association are sometimes called measures of effect because if the exposure is causally related to the health outcome, the measure quantifies the effect of exposure on the probability that the health outcome will occur. In this study, association between socio-demographic, personal habits, suffering diseases and awareness on junk food consumption was found out by calculating chi-square test. The significant level was set at $p \leq 0.05$.

4.7.1 Association between Habits of Alcohol Drinking and Knowledge of the Respondents

Firstly, the association between habits of alcohol drinking and knowledge of the respondents was identified and detail of the finding was as follow.

Table (4.16) Association between Alcohol Drinking and Knowledge of the Respondents (n=180)

Alcohol drinking	No.	Knowledge level				Chi-Square (χ^2)	df	*P value*
		Low		High				
		frequency	%	Frequency	%			
Daily	3	2	66.7%	1	33.3%	7.497	3	0.058
Weekly	58	36	62.1%	22	37.9%			
Sometimes	52	19	36.5%	33	49.3%			
Others	67	33	49.3%	34	50.7%			
Total	180	90	50%	90	50%			

Source: survey data, 2020 *p=0.05*

There was a statistically significant relationship between alcohol drinking and knowledge of the respondents ($\chi^2 = 7.497$, *p=0.058*). It showed that the respondents who drunk rare in social welfare got high score on level of knowledge of junk food consumption. Therefore, it was assume that they liked healthy foods and healthy life.

4.7.2 Association between Suffering from Obesity and Knowledge level on junk food consumption of the Respondents

In this study, association between suffering from obesity and knowledge level on junk food consumption of the respondents was identify.

Table (4.17) Association between Suffering from Obesity and Knowledge of the Respondents (n=180)

Suffering diseases from Obesity	No.	Knowledge level				Chi-Square (χ^2)	df	*P value*
		Low		High				
		frequency	%	Frequency	%			
Yes	13	10	76.9%	3	23.1%	4.063	1	**0.044**
No	167	80	47.9%	87	52.1%			
Total	180	90	50%	90	50%			

Source: survey data, 2020   ***p=0.05***

When analyzing the suffering disease from obesity of respondents, it was found that most of high level of knowledge (52.1%) was respondents who are not suffering from obesity. Additionally, it was found that there was significant association between suffering from obesity and knowledge of the respondents (χ^2=4.063, *p*=0.044). Therefore, they seemed to have much knowledge on health life style.

4.7.3 Association between Suffering from Obesity and Attitude Junk Food Consumption of the Respondents

Moreover, this study also identified the association between suffering from obesity and attitude on junk food consumption of the respondents at p=0.05.

Table (4.18) Association between Suffering from Obesity and Attitude of the Respondents (n=180)

Suffering from obesity	No.	Attitude level				Chi-Square (χ^2)	df	*P value*
		Unfavorable		Good				
		frequency	%	Frequency	%			
Yes	13	12	92.3%	1	7.7%	8.785	1	0.003
No	167	83	49.7%	84	50.3%			
Total	180	95	52.8%	85	47.2%			

Source: survey data, 2020   *p=0.05*

As illustrated by this table, it was found that the respondents who are not suffering from obesity had higher level of attitude on junk food consumption. In this study, there was a statistically significant relationship between suffering from obesity and attitude level of the respondents (*p= 0.003*). With this association, the respondents who had not suffering obesity had good attitude on consumption of healthy diet.

4.7.4 Association between Suffering from Other Diseases and Attitude of the Respondents

This study also revealed the association between suffering from other diseases and attitude level on junk food consumption of the respondents as well.

Table (4.19) Association between Suffering from Other Diseases and Attitude level on junk food consumption of the Respondents (n=180)

Suffering from other diseases	No.	Attitude level				Chi-Square (χ^2)	df	*P value*
		Unfavorable		Good				
		frequency	%	Frequency	%			
Yes	118	70	59.3%	48	40.7%	5.887	1	**0.015**
No	62	25	40.3%	37	59.7%			
Total	180	95	52.8%	85	47.2%			

Source: survey data, 2020   *p=0.05*

For the level of attitude on junk food consumption by suffering from other diseases such as arthritis, gastritis and dental diseases, etc, there was a statistical difference between proportions of level of attitude and suffering from other diseases of respondents of χ^2=5.887, p= 0.015. They had good attitude on junk food consumption since they seemed to fear more suffering from current disease and complications.

Overall, the survey results reported here present evidence of the awareness and practices of junk foods consumption among executive staff who are attending in master program at YUE as quantitative survey results. The findings are discussed in the next chapter and appropriate recommendations of these results for candidates, policy makers and future research are also discussed.

CHAPTER (V)

CONCLUSION

5.1 Finding

This study was concluded at the Yangon University of Economic (YUE) to study on the awareness of junk food consumption among executive staff attending master course. A total of (180) respondent from different attending courses such as EMPA, EMDevs, and EMBF were involved in this study. The present study classified socio-demographic characteristics of the respondents into gender, age, race, education, attending courses, occupation, working hours, sitting hours in work, body weight, height, and personal habits such as suffering diseases, medical checked up, regular exercise, smoking, drinking alcohol and drinking coffee for sources of information associated with unhealthy effects of junk food.

According to study, the respondents were only male (53.9%) and female (46.1%) from three selected courses of YUE candidates in evening program during 2018-2021 academic years. They all were in working age group (30-60 years). Among them, 66.7 % of the respondents were between 31 to 40 years old and 34% of the respondents were between 41 to 50 years old and 7% of the respondents were above 50 years old. The mean age of the respondents was (38.2). 73.9% of the respondents were Bamar and over half of the respondents (53.3%) were basic science majors, 40.6% were working in NGO and 19.4% were serving in Government staff and 57.8% of the respondents were working in eight hours per day. Among 180 respondents, 74.4% were between 140 lbs to 160 lbs in body weight, whereas 9.4% were between 161 lbs to 180 lbs respectively.

Moreover, in the personal habits of the respondents (180), it was found that 54.2% of male candidate performed on medical checked and 56.8% did regular exercise. According to the demographic nature, it was seen that most of male candidates were preference on smoking, alcohol and coffee drinking. In this study, it was found that body weight (141-160) group had more attention on good health habits such as medical checked (74.6%) and regular exercise (78.4%) whereas risk for unhealthy habit such as smoking (78%), alcohol drinking (77.9%) and coffee drinking (93.9%) respectively.

In the attending program, over half of the respondents from each program had good habits in medical checked and regular exercises. But, almost half of the respondents (180) were suffering from hypertension due to risk of unhealthy habit included alcohol and coffee drinking. Therefore, most of the candidates had good health practices whereas some had risk of unhealthy practices in this study.

It was found that the study had acceptable perception level on junk food consumption since it yields mean score on knowledge level of 29.54±2.71 (SD) and on attitude level of 38.47 ±2.20 (SD). Just over half of 62.8% of respondents had acceptable level of knowledge in junk food consumption while it was categorized in three groups according to the mean score. It can be concluded that almost half of the respondents had acceptable level of knowledge on junk food consumption. Therefore, advanced information about junk food consumption should be given to the candidate while they are in candidate life because they are administrative person in their organization to support and advice about good healthy diet and life style after getting master degree.

Although most of the responds indicated that the sample population had suitable level of awareness on junk food consumption, some of the respondents (20%) were not correctly answered in some important questions. For example, the definition of junk food, components of junk food are important in health. But, over half of the respondents (65.6%) knew that the junk food is unhealthy and 56.7% of the respondents correctly knew that junk foods had sodium chloride. Although half of the respondents had ever been heard about junk foods, they ignored the harmful effects of junk food such as hypertension, diabetes mellitus, obesity, cardiac disease and cancer. They didn't aware that junk foods were worse for health because most of the respondents (90%) identified that junk foods consumption save meal length and save cost for them. Therefore, respondents need to know specific information regarding junk food consumption.

Moreover, most of the junk foods included many of the chemical effect included melamine, dyes, starch and preserved chemical materials. In the current study, this showed that 49.4% of the respondents didn't know that one of the chemical materials; melamine included in junk foods harms on their health. Therefore, they didn't have specific knowledge about junk foods especially melamine. Therefore, they

need to get specific information about harmful effects of melamine from the junk foods.

According to the attitude of the respondents, 52.8 % was at unfavorable attitude level and 47.2 % was at good attitude level in the study. It was assumed that half of the respondents were good in attitude because of their adequate knowledge about consumption of junk food whereas over half of the respondents were unfavorable attitude. According to the preference of junk food, 55% of the respondents liked to eat junk food in the study. Among them, it was found that 58.8% were male respondents. The reason was that they liked junk food because of attractive package, tasty and good smell whereas they did not have adequate time to eat healthy meal because they discussed on their lecture and other social affairs in canteen and another restaurant. Therefore, it needs to explore other influence factors upon junk food consumption according to the results.

Regarding harmful effects of junk food, it was found that all of the respondents strongly agree that junk food was harmful for their health. Moreover, 63.3% of the respondents answered on strongly disagreed that the statement which junk foods are more nutrients than other foods on their health. This result showed that the respondents were at good attitude level about junk food consumption. In Myanmar, children and adolescents in our society had inclined to high calorie food which it was lacking adequate nutritional value rather than traditional food. At this stage of life, nutrition and health were influenced by their attitude and various life styles. According to the study, all of the respondent's concerning with attitude, (100%) of the respondents was strongly agree with prevention of junk food consumption such as restriction of junk food consumption, selling on different types of junk food. This result showed that all of the respondents ready to change their attitude for their healthy life style. Moreover, all respondents had concept of health economic depending on the result, 100 % of the respondents were strongly agree on labeling "*harm*" on its package whenever being advertising and health educational talk. Therefore, all candidates' attitude was highlight on understanding the nutritional value for building with healthy environment with their strength.

According to the statistical results, some sociodemographic characteristics were statistically significant relationships between some variables and knowledge

status and attitude status. In analysis with attending program, the proportion of program associated with knowledge almost the same. According to findings, the knowledge level of EMPA program had higher knowledge than EMDevs and EMBF program (73.5% in EMPA, 36.7% in EMDevs and 50% in EMBF). Therefore, it was assumed that EMPA candidates shared their knowledge with healthy diets from their colorful organization and applied on health economic module. Moreover, the candidate who are suffering from obesity had not higher knowledge level and attitude level with junk food consumption than others candidates in this study (χ^2=4.063, p = 0.044, (χ^2=8.785, p = 0.003). But, the candidates who were not suffering obesity had few good attitudes (23.4%) in junk food consumptions. According to the survey, it was concluded that most of the respondents were unfavorable attitude in junk food consumptions. Therefore, they did not try to know about junk foods and did not aware side effect of this food.

On the other hand, it could be seen that the candidate who are suffering from arthritis, renal stone and knee joint pain had higher knowledge level than other candidates (χ^2=5.887, p = 0.015). There was statistical relationship between suffering from other diseases and attitude on junk food consumption. It was assumed that candidates who are suffering from other diseases were more attention for junk food consumptions because they were facing disease symptoms. But, it could be seen that most of the respondents who are suffering from other diseases had unfavorable attitude (91.5%).

In the study, it can be seen that the respondent who were habits of alcohol drinking had higher knowledge than other candidates (χ^2=7.497, p = 0.058). It was also assumed that they cannot quit preference of alcohol. But, the relationship between regular exercise and attitude of the respondents, the respondents who were doing regular exercise were not significantly related with attitude level of respondents. Although these respondents had unfavorable attitude (74.3%), some had good attitude (25.7%). But it might be the reason that they did not have time to spend with their regular exercise although they had some knowledge with junk foods.

5.2 Recommendation

Based on the result of the study, the followings would be recommended. First of all, most of the respondents have formal learning environment which has not only journal reading in class-room, academic references but also educational program to get higher level of knowledge and academic performance. Therefore, all of the candidates are working age group from each respective department included government, NGO, INGO and private sectors whereas they are not only top level manager but also knowledgeable personnel on their respective work such as manageable skills, communication skills and others health related skills. Therefore, knowledge sharing program regarding on their respective fields such as topic of healthy life style, advanced technology should be performed in social platform, messenger group, viver group to get advanced knowledge and to change their life style during their candidate life.

According to the demographic nature, most of male candidates had extremely on personal habits such as smoking, alcohol drinking and coffee. They had acceptable knowledge level on junk food consumption. Moreover, they have regularly medical checked and doing exercise whereas they enjoyed on risk for unhealthy lifestyle such as alcohol drinking and smoking. Risk of unhealthy life style causes non-communicable diseases such as hypertension, diabetes, obesity and heart related diseases. Moreover, the candidates take junk food whenever they are hungry and so. Therefore, all candidates should perform consciously to change mindset that avoiding the risky behavior on health during the candidate life.

Additionally, it needs to discuss carefully on health education forum, debate whereas the health promotion program should be widely implemented through a multi-sector, interdisciplinary and multidimensional approach such as the joint collaboration of Ministry of Health and Sport and Ministry of Education, the collaboration between government organization and NGOs to get healthy and well-being life style by avoiding unhealthy food such as junk foods. These policies should reinforce the commitment of the Government to the integration of candidates into the national development process and foster investments in human capital. Moreover, it provide not only for the knowledge but also for changing attitude and getting good practices for long term aftermath.

REFERENCES

Ashakiran & Deepthi (2012). Fast Foods and their Impact on Health. *Journal of Krishna Institute of Medical Sciences University, 1(2),* July-Dec. 2012. Retrieved from https://www.researchgate.net/publication/285169531 _Fast_foods_and_their_impact_on_health

Aung Aung (2018). *Effectiveness of health education on nutritional awareness and practices regarding non-communicable diseases among rural community, Ann Township, Rakhine state.* Unpublished master dissertation. Military Institute of Nursing and paramedical Sciences, Mingaladon.

Aung Myat Khaing, Ameen, A., & Isaac, O. (2019). Analysis of Consumption Habit on Safety and Healthy Foods at School' Canteens of Basic Education Schools: A Qualitative Study on Factors that Influence Students' Food Choice. *International Journal of Management and Human Science (IJMHS), Volume 3, Issue 3,* Pages 12-25, 2019 eISSN: 2590-3748 Retrieved from http: // www.ijmhs.org.

DFDA. (2018, March 9). Food and Drug Administration in Myanmar. Retrieved from Food and Drug Administration in Myanmar: http://www.mtg.com.mm/fda/wp-content/uploads/2018/03/Guideline-for-Drug-Registration-Applicants-20JAN2018.pdf

Denney-Wilson, E., Crawford, D., Dobbins, T., Hardy, L. & Okely, A. D. (2009). Influences on consumption of soft drinks and fast foods in adolescents. *Asia Pacific Journal of Clinical Nutrition, 18 (3)*, 447-452.n. Retrieved from https://pubmed.ncbi.nlm.nih.gov/19786394/

Fortin, B., & Yazbeck, M. (2011). *Peer Effects, Fast Food Consumption and Adolescent Weight Gain.* CIRANO - Scientific Publications 2011s-20. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1759978

Hovington & David, (2012). Junk food marketing survey : 10000 Quebec teenagers speak out. I GET IT? – Project for denormalization of junk food among young people – Evaluation report 1, RSEQ, January 2012.   Retrieved from http:// www.rseq.ca

Jumnongkul,C., Mongkolchati, A., Buntup, D., & Rattanapan, C. (2015). Factors Affecting Sugar Addiction Behavior Among High School Student In Kanchanaburi Province, Thailand. *Proceedings of 34th The IIER International Conference, Singapore, 19th August 2015, ISBN: 978-93-85465-79-6.*Retrievedfrom https://www.scribd.com/document/ 468201686/ Assessment-of-Sugar-Addiction-1611

Khine Myat Maw & Piansoongnern, O. (2014). *Consumer Buying Behavior of Fast Foods in Myanmar*. A dissertation presented to the graduate school of Management, Shinawatra University in partial fulfillment of the requirements for a degree of Master of Business Administration in Management, Shinawatra University, Bangkok,Thailand. Retrieved from https://www.google.com/ search?q= Khine+%E2%80%93+Myat++ Maw+%26+Piansoongnern%2C+O.+%282014%29.+Consumer+Buying+Be havior+of+Fast+Foods+in+Myanmar.

Karim, N. A. (2015) Good Nutrition for Growth. Retrieved from http:// my positiveparenting.org/2015/04/26/good-nutrition-for-growth/

Lwanga, S. K. & Lemeshaw, S. (1991). Sample size determination in health studies: A practical manual. Geneva. Retrieved from http://pdfs.semanticscholar.org

Minister of Health, (1992). *The State Law and Restoration Council: The National Food Law* (Law No. 5/97) Pg 18. Published : Office of the Attorney general. Retrieved from https://www.fda.gov.mm/?p=152

Maggio, C. & Pi-Sunyer, F. (2003), 'Obesity and type 2 diabetes', *Endocrinology and metabolism clinics of North America 32(4),* 805–822. Retrieved from https://pubmed.ncbi.nlm.nih.gov/14711063/

Ministry of Agriculture, Livestock and Irrigation (2016). *MYANMAR: National Action Plan for Agriculture (NAPA) Working Paper 14: Food Safety and Quality Standard.* Retrieved from https://www.lift-fund.org/en/project/ formulation-and-operationalisation-national-action-plan-poverty-alleviation -and-rural.

Ministry of Health and Sport (MOHS). (2017). *National Strategic plan for prevention and control of NCDs (2017-2021).* Yangon: Author. Retrieved from https://www.mohs.gov.mm/Main/content/publication/ncd-national-strategic- plan-for-prevention-and-control-of-ncds-2017-2021.

MOHS. (2014). *Health in Myanmar 2014*, Ministry of Health and Sports. Yangon: Author

MOHS. (1993). *Ministry of Health and Sports.* Retrieved from https://www.mohs.gov mm/Main/content/publication/national-health-policy-english-version

Myanmar Law (1997). *The State Law and Restoration Council: The National Food Law* (Law No. 5/97) Pg 18. Published : Office of the Attorney general. Retrieved from https://www.fda.gov.mm/?p=152

Ogden, C., Carroll, M., Kit, B. & Flegal, K. M. (2014). Prevalence of childhood and adult obesity in the United States, 2011-2012. *JAMA The Journal of the American Medical Association, 311(8), 806-814. DOI: 10.1001/jama.2014.732.*

Sharma, V. (2013). Adolescents knowledge regarding harmful effects of junk food. Psychology IOSR Journal of Nursing and Health Science. DOI: 10.9790/1959-0160104. Corpus ID: 167913004

Sivapriya, T., & Saraswathy, S., (2014). Study on the Consumption Patter n Of Junk Food Among University Students. *Global Journal of Engineering Science and Research Management, 1(4):* August, 2014. Retrieved from http: // www.gjesrm.com.

Sheer, V., Prasad, R. R., Kumar, S. & Sinha, S. (2018). Study on consumption of fast food among medical students of IGIMS, Patna. International Journal of Community Medicine and Public Health. DOI: 10.18203/2394-6040.ijcimph20182416.

The state law and order restoration council the national food law (1997). *The State Law and Order Restoration Council Law No 5/97*. The 9th Waning of Tabodwe, 1358 M.E. (3rd March, 1997). Retrieved from https://www.burmalibrary.org/en/the-national-food-law-slorc-law-no-597-english?.

Wilson, E. D., Crawford, D., Dobbins, T., Hardy, L. & Okely, A. D. (2009). *Influences on consumption of soft drinks and fast foods in adolescents*. Retrieved from https://www.aipt.edu.au/.../what-happens-your-brain-when-you-eat-junk- food(2018).

WHO. (2018). *Monitoring health for the SDGs*. Switzerland: Author. Retrieved from https://www.who.int/docs/default-source/gho-documents/world-health-statistic-reports/6-june-18108-world-health-statistics-2018.pdf

World Health Organization (WHO). (2011). *Non-communicable Disease Risk Factor SurveyMyanmar 2009.* New Delhi: Author. Retrieved from https://apps.who. int/iris /handle/10665/205576

Yun, L., Ahmad, M. A. & Quee, C. (2018). *Dietary habits and lifestyle practice among university students in Universiti Brunei Darussalan*. Doi : 10. 21 31 5/ jms

Zhao, Y., Wang, L., Xue, H., Wang, H., & Wang, Y., (2017). Fast food consumption and its associations with obesity and hypertension among children: results from the baseline data of the Childhood Obesity Study in China Mega-cities. *BMC Public Health (2017) 17:933.* Retrieved from https://pubmed. Ncbi .nl m. nih.gov/29212483/

Awareness of and Practice Questionnaire on Junk Food Consumption among Executive Staff attending Master Course in Yangon University of Economics

This is a survey questionnaire for my thesis. These answers will need to complete it probably takes 10-15 minutes. The information collected is "private and confidential" and will not be used for assessment. No part will be revealed without consent. The candidates don't need to mention the name and roll number.

Part (A) Socio- Demographic Data

Code No. ……………

1. Gender --

2. Age ---

3. Race ---

4. Education   --------------------------------

5. Current attending program- -----------------------

6. Occupation

      (a) Government   ⬭

      (b) Own business   ⬭

      (c) NGO   ⬭

      (d) Others -------------------

7. Working hours ----------------------hrs/Day

8. Total sitting hours in working time -------------------------------hrs/Day

9. Body Weight -----------------------Lbs

10. Height ---------------------Ft/Inches

Part (B) Personal Habits Data

11. Do you take regularly medical check-up in clinic or hospital? Yes ⬭ No ⬭

12. Do you take regularly physical exercise? Yes ⬭ No ⬭

13. Do you smoke? Yes ⬭ No ⬭

14. If you smoked, how many roll did you smoke in a day? -------------------------------- Roll/Day

15. Do you drink alcohol? Yes ⬭ No ⬭

16. If you drank, how did you drink in your life?

    (a) daily ⬭

    (b) Weekly ⬭

    (c) Sometimes ⬭

    (d) Others -------------------------

17. Do you drink coffee? Yes ⬭ No. ⬭

18. If you drank, how many cups did you drink coffee per day? **≤2 cups** ⬭ **≥2 cups** ⬭

Suffering Diseases

19. Do you suffer from the following diseases?

    (a) Obesity Yes ⬭ No ⬭

    (b) Heart diseases Yes ⬭ No ⬭

    (c) Diabetes Mellitus Yes ⬭ No ⬭

    (d) Hypertension Yes ⬭ No ⬭

    (e) Others ---

Part (C): Knowledge Questions for Junk Food Consumption among Executive Staff Attending Master Program in YUE (Answer All Question)

No.	Items	Yes	No	Do not known
1.	**Junk food** is unhealthful food that is high in calories from sugar or fat, with little dietary fiber, protein, vitamins, minerals.			
2.	Junk foods that you know well are- **(a)** ------------------------------------- **(b)** ------------------------------------- **(c)**-------------------------------------			
3.	Junk foods are- a. Tasty and good smell b. attractively packaging c. Appetizing d. Healthy* e. save meal length			
4.	Which population is more, people who eat junk food in your environment? (a.) Children (b.)Adolescents (c.) Teenagers (d) Adults			
5.	Junk food consumption is the most popular among (a) University students (b) Government staff (c) Private staff (d) NGO staff (e) others --------------------			
6.	The most popular fast food in your environment- (a) -- (b)-- (c)--			
7.	The most popular energy drinks in your environments- (a)-- (b) -- (c)--			

8.	Which are contains in junk foods? (a)Protein (b) Fat (c)Sugar (d)Sodium chloride (e) Vitamins			
9.	Junk foods contains in the following group. (a)Body growth and development (b) Improving immune to prevent from disease (c) Energy producing nutrients (d) Causing disease			
10.	Junk foods can be- (a) Obesity (b) Weight loss (c) No effects			
11.	In the following, which are junk foods? (a) Vegetables (b) Energy drinks (c) Korean sea foods (d) Preserved foods			
12.	Junk food consumption is healthy.			
13.	Junk foods can be the following diseases- (a.)Obesity (b.) Cardiac disease (c.) Diabetes mellitus (d.)Hypertension (e.)Cancer			
14.	Junk foods contain preserved chemical material.			
15.	Which ingredient can be affected to our health in junk foods? a. Melamine b. Dyes c. Starch d. Preserved chemical material.			
16.	Which foods can be eaten as junk foods consumption? (a) (b) (c)			

Part (D): Attitude Questions for Junk Food Consumption among Executive Staff Attending Master Course in YUE (Answer All Question)

No.	Question statements	Strongly agree	Agree	Disagree	Strongly Disagree
1.	Do you think junk food harms our health?				
2.	Do you think we should eat junk food whenever we eat snacks?				
3.	Do you think junk food have more nutritious than other food?				
4.	Do you think Potato chips, Hamburger and cold drink support on our health?				
5.	Do you agree there is no effect by eating junk food?				
6.	Do you agree junk foods are eaten too much because there is no time to take meal?				
7.	Do you agree junk foods are eaten too much because of attractive packed?				
8.	Do you agree you will be outdated if you don't consume junk food?				
9.	Do you agree we should absolutely avoid junk food?				
10.	Do you agree we should be consumed instead of lunch?				
11.	Do you know preserved chemical materials in junk food don't harm on our health?				
12.	As junk foods can be effect to our health, do you agree restrict strongly.				
13.	Do you agree Junk food will be restricted in the area of school?				
14.	The junk food should be labeled "harm" on its package whenever being advertising.				
15.	In our campus, health education should be done for prevention junk food consumption.				

Part (E): Practice Questions for Junk Food Consumption among Executive Staff Attending Master Course in YUE (Answer All Question)

1. Would you like to eat junk food?   Yes ⬭   No ⬭

2. What is the most common type of junk food?

    (a). --

    (b) --

    (c) --

3. How often do you eat junk food each week?   (------------------) times

4. When do you most consume in the following;

    (a) Television time   ⬭

    (b) Reading   ⬭

    (c)Talking   ⬭

    (d.) Holidays   ⬭

    (e.) Break time   ⬭

5. Describe the person who eats Junk foods together;

    (a.)-----------------------------------

(b.) ---------------------------------

(c). -----------------------------------

(d.) ---------------------------------

6. Which kind of junk foods are the most in your lunch break?

    (a.)-------------------------------

(b.)-----------------------------

(c.) -----------------------------

7. Which kind of energy drink do you drink with junk food consumption? --------------

----

8. Sometimes I drinks energy drinks when I feel hot and thirsty.   Yes ◯   No   ◯

9. Junk foods will be my lunch when I busy.   Yes ◯   No   ◯

10. Sometimes, I eat junk foods without lunch and dinner.   Yes ◯   No   ◯

11. Which junk foods do you see in our campus?

(a.)----------------------------

(b.) ----------------------------

(c.) ----------------------------

(d.) ----------------------------

12. Which junk food restaurants will you want to visit?

    (a.) KFC ----------------------

    (b.) J' Donuts ----------------------

    (c.) Pizza ----------------------

    (d.) Others ------------------------------------

13. You eat junk foods because of;

    (a.)Being favourite   ◯

(b.) Being popular   ◯

(c.) Easily full   ◯

(d.) Less time consuming for meal   ◯

(e.) Cheaper than healthy food   ◯

(F.)Good advertising   ◯

(g.)Easy to eat   ◯

(h.) Reducing stress   ◯

(i.) Others   ◯

14. I checked the expired date and the quality of the junk foods. Check ◯ Uncheck ◯

15. As junk foods can be effect to our health, restrict strongly. Do ◯ Don't ◯