

**A SURVEY ON ORAL HYGIENE STATUS AND AWARENESS
AMONG
UNIVERSITY STUDENTS IN BANGLADESH**

**A THESIS PAPER SUBMITTED TO THE DEPARTMENT OF PHARMACY, EAST WEST UNIVERSITY
BANGLADESH IN PARTIAL FULLFILLMENT OF THE REQUIRMENTS FOR THE DEGREE OF
BACHELOR OF PHARMACY (B.PHARM)**

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I, Razia Amin ID: 2013-3-70-039, hereby declare that the thesis, entitled “**A SURVEY ON ORAL HYGIENE STATUS AND AWARENESS AMONG UNIVERSITY STUDENTS IN BAMGLADESH**”, Submitted to the Department of Pharmacy, East West University Bangladesh, in the partial fulfillment of the requirements for the Degree of Bachelor of Pharmacy (B.Pharm) is a genuine and authentic research work carried out by me. The contents of the thesis, in full or in parts, have not been submitted to any other institute or university.

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DEDICATION

This research paper is dedicated to my beloved parents,

Honorable faculties & loving friends.

ABSTRACT:

Oral Hygiene means cleanness of your mouth. There are some procedure to make ones mouth clean such as brushing twice a day (In the morning after breakfast and before going to bed), duration of tooth brushing 1-2 minutes, use of mouthwash and floss, cleaning tongue regularly, avoiding cigarette and frequent use of sugar containing foods, visiting doctor regularly etc. From the previous study it is understand that young generation follows these procedures and maintain their oral hygiene most. And in every generation female follow this more than the male. In this survey it is understand that more than half of the students know the oral hygiene procedures and follow this. All the procedures have been followed by the pharmacy students more rather than other students and by female students more rather than male students. In some cases male students also show some consciousness like avoiding smoking because in this survey very less amount of students do smoking and pharmacy students are less enough than other students. So it is understand the pharmacy students show more consciousness about their oral health. Other students know all the procedure to make ones oral hygiene but they don't follow this because of habituation and laziness and most of them are from other departments.

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INTRODUCTION

1.1 INTRODUCTION:

Hygiene generally refers to the practice of maintaining cleanliness and good health. Oral hygiene refers to the individual habits and professional methods of keeping your mouth and free of diseases and maintaining a healthy state of your mouth (Dental Health Foundation, 2017). A positive attitude towards a good oral hygiene practice plays a major key role to obtain a better oral health. Oral health is a fundamental part of a general health. Nobody can maintain their healthiness without oral health. Many general diseases may introduce first in the mouth and mouth is the visible gateway to the rest of the body that reflects what is happening inside the body (Sarwar et al, 2011).

So oral hygiene is important not only for maintaining an oral health but also for maintaining a good health. From the review it is noticed that oral hygiene practice is mainly excepted by young generation group than the middle aged group and female persons were more likely to practice oral hygiene procedures than male persons. So the aim of this study is to assess oral hygiene status, awarness and practice among the young generation in current situation to compare the improvement of oral hygiene practice from earlier.

Poor oral hygiene is nothing but not maintaining cleanness of your mouth and not taking good care of your teeth and gums. Poor oral hygiene can result the following conditions:

- ❖ Dental cavities
- ❖ Gingivitis
- ❖ Periodontal diseases
- ❖ Bad breath. (ClearCorrect Support, 2017)

There are some diseases associated with poor oral hygiene such as:

- **Cardiovascular disease and Stoke:** Dental plaque and bacteria that enters the body through the gums causes narrowing of the arteries. These bacteria have the ability to clog arteries and increase the risk of heart attack. Blood entering to the brain can become clogged and increase the risk of stroke. (Everett, 2015).
- **Respiratory disease:** If a person suffers from periodontal disease, the bacteria can travel into bloodstream and into lungs. These bacteria have a direct impact on respiratory system by causing infections over there and increase greater risk of suffering from different types of respiratory diseases like acute bronchitis or chronic pneumonia etc. (Everett, 2015).
- **Diabetes:** More than 95% of the individuals who have diabetes also have some form of oral diseases because of slowing the healing process and lower resistance to infection resulting from diabetes. Inflammation of the gum tissue and periodontal disease can make it harder to control your blood sugar and make your diabetes symptoms worse. (Everett, 2015).

The most common oral health problems associated with diabetes are tooth decay; periodontal (gum) disease; salivary gland dysfunction; fungal infections etc. (Ada.org, 2002).

- **Chronic kidney disease (CKD):** Tooth decay and gum disease resulting from poor oral hygiene can lead to infections that can cause problems with kidney patients. Several studies show that kidney patients suffer from different types of oral diseases and conditions in higher rate than the general population because of advanced age, diabetes, concurrent medications, and a state of immune dysfunction that may increase the risk for systemic consequences of periodontitis and other oral diseases. (Akar et al., 2010)
- **Rheumatoid arthritis (RA):** Severe gum disease can be present in the early stages of RA. The bacteria that cause periodontal disease, *Porphyromonas gingivalis*, increase the severity of rheumatoid arthritis. Among the RA patients 70% of them have gum disease and 30% have severe gum disease.. Brushing, flossing, and visiting dentist regularly are especially important for RA patients. (Cathy, 2016).
- **Dementia:** Poor oral hygiene causes tooth loss and this could lead to potential loss of memory which can then lead to dementia. There are some substances, inflammatory in nature causing inflamed brain, could cause brain death. (Everett, 2015).
- **Pregnancy complication:** Some studies show that periodontitis, premature birth and low birth weight are associated with each others. During pregnancy there is some changes in body which can affect gums and teeth. During pregnancy, more blood flowing through body, more acid in mouth and rising hormone levels cause some oral problems. (Marchofdimes.org, 2013)
- **Variety of cancers:** Several studies shows that the persons who suffer from gum disease were almost 50% more likely to be diagnosed with kidney cancer or cancer of the pancreas. They are also 30% more likely to be diagnosed with cancer within the blood. (Everett, 2015).

Cancer and its treatments can weaken immune system. Prior to cancer treatment If mouth is not healthy then infection can be caused and this infection can delay the cancer treatment. Radiation therapy, especially in the area of the head and neck, can damage salivary glands which can cause dry mouth which can increase the chances of tooth decay and infection. (Mouthhealthy.org, 2017)

So Oral hygiene must be an important part of a daily routine. Assimilation of good oral hygiene practices in early age promotes better oral health and general health. (Sarwar et al, 2011).

1.2 ORAL DISEASES AND CONDITIONS:

Dental cavities:

Dental cavities also known as caries or tooth decay. Sugar, saliva and bacteria (*Streptococcus mutans*) together lead to the formation of dental cavities.

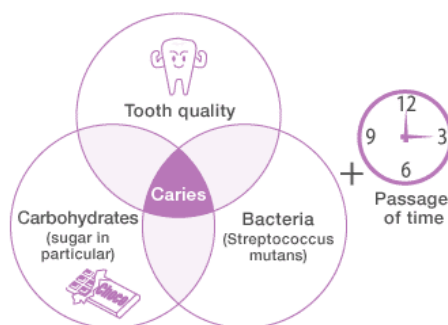


Figure: Causes of dental caries (Lion.co.jp, 2016)

Certain types of bacteria present in the dental plaque (thin film of bacteria) metabolize the sugars of foods and drinks into acid. This acid dissolves the mineral of the tooth surface. Saliva may neutralize the acidic environment around the tooth surface and minerals in saliva may repair the tooth surface and it takes 20 to 30 minutes to do so. But if there is frequent intake of sugar-containing food or drinks, then caries occur because the mineral loss through dissolution will be larger than the repair. After a period of time, tooth surface where mineral loss occurs, becomes so soft to break down the structure of tooth resulting in formation of dental caries. (Oral Health Survey, 2011)

Stages of dental caries:

1. The initial lesion: White or brown spot lesion of tooth surface is the initial state of formation of cavities. This spot is the place from where mineral has been removed in micro level. This spot can be remineralized by saliva. (Siddiqui, 2013)
2. Dentine caries: If the initial lesion is unable to be reversed, bacteria reach to the inner dentine layer by continuing demineralizing the tooth. Once dental caries reach to the dentine zone, remineralization is not possible at all. (Siddiqui, 2013)
3. Caries involving pulp: With time caries reach to the pulp (nerve region) of tooth, causing nerve damage resulting in nerve death and loss of blood supply. (Siddiqui, 2013)

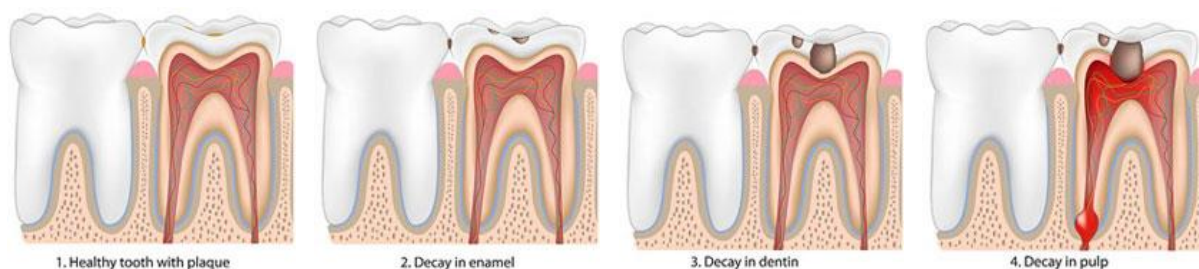


Figure: Stages of dental caries (Siddiqui, 2013)

Periodontal disease:

Bacteria in the mouth along with mucus and other particles cause continuous formation of colorless plaque which can be easily removed by brushing and flossing. Plaque that is not removed with time it becomes more harder and form tartar that is not removed by brushing.

1. **Gingivitis:** Gingivitis is the inflammation of the gums caused by bacteria. This occurs because of the longer tartar. In gingivitis, the gums become red, swollen, and can bleed easily. It is the mild form of periodontal disease that can be reversed by regular cleaning by a dentist and by brushing and flossing daily. This form of gum disease does not include any loss of bone and tissue that hold teeth in place. (Nidcr.nih.gov, 2014)

Signs and symptoms of gingivitis may include:

- ✓ Gums are bright red or purple
- ✓ Gums are tender, and sometimes painful to the touch
- ✓ Gums bleed easily when brushing teeth or flossing
- ✓ Bad breath
- ✓ Inflammation (swollen gums). (Christian, 2015)

2. **Periodontitis:** When gingivitis is not treated then periodontitis occurs which means inflammation around the teeth. In periodontitis, gums pull away from the teeth and form spaces (called “pockets”) that become infected. The body’s immune system fights the bacteria as the plaque spreads and grows below the gum line. Bacterial toxins and the body’s natural response to infection start to break down the bone and connective tissue that hold teeth in place. If not treated, the bones, gums, and tissue that support the teeth are destroyed. The teeth may eventually become loose and have to be removed. (Nidcr.nih.gov, 2014)



Figure: Periodontal Diseases (Waterpik.com, 2017)

Oral cancer:

Cancer simply refers as the uncontrol growth of abnormal cells. When this occurs in mouth that is called oral cancer. Oral cancer can be seen in lips, tongue, cheeks, floor of the mouth, hard and soft palate, sinuses, and pharynx (throat). Oral cancer can be life threatening if not treated on time. Consumption of alcohol and uses of tobacco are the major risk factor of oral cancer.(WebMD, 2017)

Signs and symptoms of oral cancer may include:

- A sore that doesn't heal
- A sore that bleeds
- A growth, lump or thickening of the skin or lining of your mouth
- Loose teeth
- Poorly fitting dentures
- Tongue pain
- Jaw pain or stiffness
- Difficult or painful chewing
- Difficult or painful swallowing
- Sore throat (Mayo Clinic, 2016)

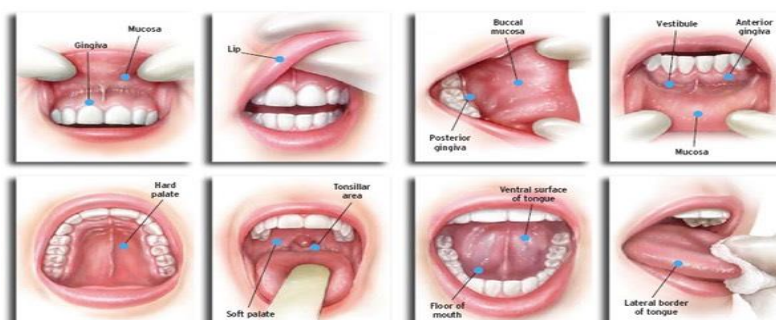


Figure: A brief screen of oral cancer includes the eight step examination of the in side of mouth. (Healthmagweb.blogspot.com, 2017)

Tooth Loss:

Dental cavities and periodontal disease are major causes of tooth loss. Complete loss of natural teeth is widespread and particularly affects older people. Globally, about 30% of people aged 65–74 have no natural teeth. (World Health Organization, 2012)

Some factors of tooth loss are-

- Being older than 35
- Being male
- Never getting professional dental care
- Never using a toothbrush
- Smoking (current or past)
- Having diabetes

- Having high blood pressure
- Having rheumatoid arthritis. (WebMD,2017)

Oral Odor:

Although oral odor is influenced by a combination of several factor including non-oral sites and systemic causes like nasal inflammation, chronic sinusitis, diabetes mellitus uremia etc, there is an estimation that 80-90% of all bad breath originate in the mouth itself and generally associated with poor oral hygiene, dental plaque, dental caries, gingivitis, periodontitis and dry mouth. Morning breath which is the bad breath after getting up in the morning is a common condition. Oral hygiene practices can only remove this condition. (Sarwar et al, 2011).

Prevention of oral diseases and conditions:

- decreasing sugar intake and maintaining a well-balanced nutritional intake to prevent tooth decay and premature tooth loss;
- consuming fruit and vegetables that can protect against oral cancer;
- stopping tobacco use and decreasing alcohol consumption to reduce the risk of oral cancers, periodontal disease and tooth loss;
- ensuring proper oral hygiene;
- using protective sports and motor vehicle equipment to reduce the risk of facial injuries; and
- safe physical environments. (World Health Organization, 2012)

1.3 COMMON ORAL HYGIENE MISTAKES:

There are some common mistakes that can affect your oral hygiene. These are-

- Using toothbrush for too long.
- Not brushing teeth long enough.
- Not using dental floss.
- Not cleaning tongue.
- Using a hard bristle toothbrush.
- Using incorrect brushing technique.
- Brushing too soon after a meal.(Dewald & Krob, 2016)

1.4 GREAT ORAL HYGIENE TIPS:

Starting practice of oral hygiene in early age:

Now a days it is very common that children have oral diseases even before they start their school life. So it is very necessary to start a good oral hygiene practice from early age to get a good oral health which will ultimately bring a healthy life. Dental care can be taken from when the first tooth appear in infants and clean, damp cloth or soft brush can be used as dental tools. At about age 2 years let children to brush themselves with proper supervising. (WebMD, 2010). Some environmental and behavioral events such as mother's education, parental smoking practices, oral health behavior, oral hygiene level, dietary habits impact on the oral health among children. It is the responsibility of parents and teature to bring the habit or practice among the children (Sarwar et al, 2011).

Use enough -- but not too much – fluoride:

Fluoride in mouth make the enamel strong and less likely to decay. In the drinking water there must be present of enough concentration of fluoride to prevent tooth decay. Three out of four Americans drink water that is fluoridated. If your water is not fluoridated then fluoride containg toothpaste can be used suggested by dental professional as a solution. But too much fluoride can give a white spot on your teeth surface and also make it brittle. So attention must be given before using fluoride containing water or toothpaste (WebMD, 2010).

Brushing at least twice a day with proper brushing technique:

Brushing twice a day is necessary to clean your teeth it will prevent acid buildup from the breakdown of food by bacteria. If you unable to brush twice a day, you can to gargle after every time eating which will reduce the amount of food that serve as substrate for bracteria from your mouth.

The proper brushing technique is to

- Place your toothbrush at a 45-degree angle to the gums.
- Gently move the brush back and forth in short (tooth-wide) strokes.
- Brush the outer surfaces, the inner surfaces, and the chewing surfaces of the teeth.
- To clean the inside surfaces of the front teeth, tilt the brush vertically and make several up-and-down strokes. (American Dental Association, 2017)

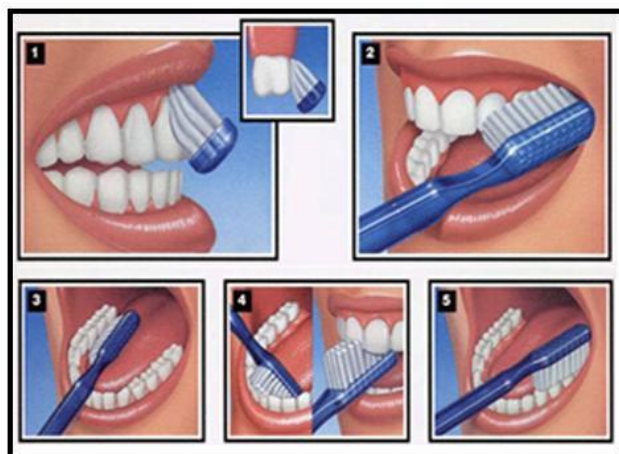


Figure: Proper technique of tooth brushing (i Dental Hub,2010)

Brushing Enough:

Many people brush regularly even twice a day, but have oral diseases. The reason may be, they don't brush enough for teeth to stay clean. The ADA recommends brushing time for at least two minutes, twice daily. (American Dental Association, 2017).

Dental flossing Daily:

Sometimes toothbrush unable to remove food particles and other detrimental substances from between teeth. As flossing enable to do so, flossing at least once a day is recommended. Flossing can reach deep between your teeth where the toothbrush bristles cannot reach or even mouthwash cannot wash away. (Arrow Smile Dental,2011)

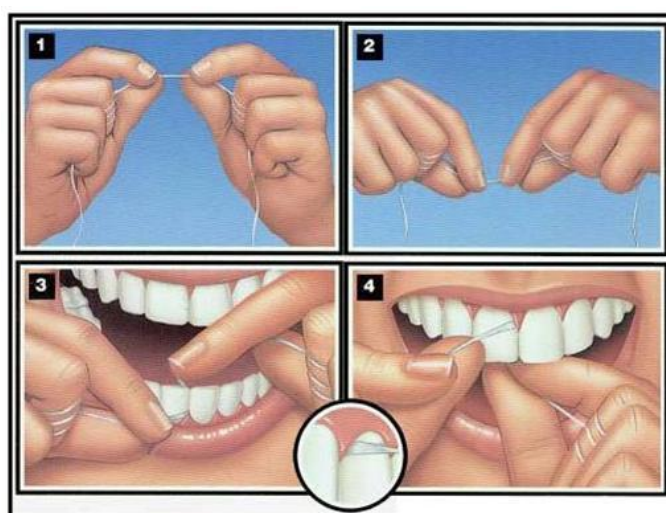


Figure: Technique of Dental Flossing (i Dental Hub,2010)

Changing of brush with time:

According to American Dental Association (ADA) it is recommended that you replace your toothbrush approximately every three to four months, or sooner. Bristles of toothbrush deteriorate with time and it becomes unable to clean your teeth properly.

Use of mouthwash:

Mouthwash can reach to that region where toothbrushes can't. The main function of mouthwash is to reduce or eliminate bad odor from mouth by reducing volatile sulfur compounds (VSCs) responsible for oral bad odor. These VSCs produce from protein of our foods or mucous. This protein contains sulfur containing amino acid (like) and this sulfur becomes volatile by bacteria present in our mouth. (Aung et al, 2015). The other functions of mouthwash are-

- Removal of food debris
- Killing and maintaining of oral bacteria
- Maintaining a strong teeth. (Arrow Smile Dental,2011)

Mouthwash cannot do all the work for oral hygiene but if you are already brushing, flossing, visiting the dentist and eating well it will take your oral hygiene in top level. (Arrow Smile Dental,2011)



Figure: Mouthwash (Vsmaligai.com, n.d.)

Cleaning of Tongue:

Although you brush your teeth, tongue surface contains countless bacteria and those bacteria can cause bad breath and negative effects on oral health. So it needs to be cleaned daily. To clean your tongue, you can use toothbrush or tongue scraper. (Arrow Smile Dental,2011)



Figure: Tongue cleaning (Govinda Fitness Evolution, 2016)

Avoid Tobacco:

Tobacco can cause many things such as

- ✓ Bad breath
- ✓ Stained teeth and tongue
- ✓ Gum disease
- ✓ Oral cancer. (Dentalassociates.com, 2017)

It directly affects oral health because it

- Reduces blood flow in the gums
- Reduces the Vitamin C levels needed to get a healthy gums.
- Raises the temperature in the mouth,
- Causes damaging and killing important cells. (Dentalassociates.com, 2017)

Those who take tobacco mask the odor take candies, tea, coffee. This causes double damage of teeth. So avoid of tobacco will be a great favour for teeth. (Arrow Smile Dental,2011)

Limit the use of beverages:

Different types of beverages Like soda, coffee, alcohol has high level of phosphorus which is a mineral needed for healthy oral. But too much phosphorus reduces the body' calcium level and this causes tooth decay and gum disease. Sugar syrup of beverages can causes discoloration of teeth. So the use of beverages must be limited. (Arrow Smile Dental,2011).

Taking a healthy balanced diet:

At every age, a healthy diet is essential for healthy dental. A balanced diet of whole foods -- including grains, nuts, fruits and vegetables, and dairy products -- will provide all the nutrients that are needed for our teeth.

Calcium and Vitamin D are necessary for maintaining oral health. It is essential for teeth as well as for bone. So the calcium containing foods like milk, yogurt, broccoli, cheese, other dairy products and calcium supplement can be taken. (Arrow Smile Dental,2011).

Gum bleeding and teeth cracking can be protected by taking Vitamin B complex containing foods. (Arrow Smile Dental,2011).

Phosphorus, Fluoride, Copper, zinc, iodine, iron and potassium are required for maintaining oral hygiene. (Arrow Smile Dental,2011).

Visiting your dentist:

One should visit dentist at least twice a year for regular check up of oral hygiene. This will help you to detect any kind of dental problem in the early state. (Arrow Smile Dental,2011).

You must have to visit dentist if you notice any symptom of dental problem like toothache or gum bleeding. (Arrow Smile Dental,2011).



Figure: Visiting Dentist regularly (Dreamatico.com, 2014)

Chapter Two:

REVIEW

REVIEW:

A cross-sectional study was conducted among 224 patients in Kolkata, India, from 1 April to 30 April, 2013 to identify the awareness and practices of oral hygiene among the patients. About more than half of the participants used a toothbrush with toothpaste for teeth cleaning purpose. Some of them brushed twice in a day both in the morning and before going to bed. Very little amount of them used mouthwash. About almost half of them visited the dentist during the last six months before attaining the study and more than half of them visited because of pain. About more than half of the patients knew that excess sweet, cold drink, alcohol, and smoking were bad for dental health. Females, literates, urban residents, users of mouthwash, and regular visitors to the dentist had good oral hygiene practices. (Paul et al., 2014)

The cross-sectional survey was conducted among 360 (188 males and 172 female) non-medical students at the University of Port Harcourt, Rivers State Nigeria. in January, 2014. Most of them had the habit of brushing once and very little amount of the students replaced their toothbrush every 3 months. Quite low amount of them knew what was dental floss and used it and used mouthwash. Most of the students had never visited the dentist, those who visited the reason was dental pain and for tooth extraction. Most of the students knew about brushing our teeth twice daily and little amount of students knew visiting the dentist twice a year. (Bashiru and Anthony, 2014)

A cross-sectional study was conducted among 4200 adults (15-69 years) to identify oral hygiene practices and associated socio-demographic factors in Nepalese population. About all most all the people cleaned their teeth for at least once a day. Use of fluoridated toothpaste was noticed among most of participant. A very few made a dental visit in the last 6 months just before attaining this study. The 45-69 years aged people were more likely to brush their teeth once a day than 15-29 aged group. Women had greater habit of cleaning teeth at least twice a day and having visited a dentist in the last 6 months compared to men. This study was also found that urban population had higher odds of using fluoridated toothpaste and making a dental visit within the last 6 months than rural residents. (Thapa et al., 2016)

A cross-sectional survey was conducted among adult Nigerians by structured questionnaire. Among 7,630 participants, the mean age was 37.96. Oral health status was good > very good > fair. A few of them visited the dentist at least once prior to the conduct of the survey. More than half of these visited for treatment purpose. Toothbrushes were used mainly by educated persons, females and younger persons as a cleaning agent. Age, sex, marital status, level of education and occupation were significantly related to oral hygiene behavior among adult Nigerians. (Olusile, Adeniyi and Orebanjo, 2017).

A cross-sectional study was conducted among 266, 10 years old, children recruited from schools in Greece. Data were collected via questionnaires related to Children's oral hygiene

knowledge, behavior and attitude as well as parents' oral hygiene behavior and educational level. More than half of the children knew the proper means of oral hygiene, only half of them brushed their teeth twice daily and less than half used dental floss. Toothpaste as a cleaning agent was used by almost all of the children. The study found that children's oral hygiene knowledge was positively correlated with parental brushing frequency as well as educational level. Female children were more concerned about their teeth cleaning than male children. The reasons of avoiding brushing were boredom, low oral health literacy and forgetfulness. (Angelopoulou et al, 2015.)

A cross-sectional study was carried out among about 322 institutionalized dependent elderly patients in Bangalore City, India. The survey results explained that the dental hygiene wasn't sufficient among these elderly because denture plaque and denture stomatitis scores were found in most of the patients. This study emphasizes that there is a demand for care and need for help in oral hygiene procedures among the elderly. (Khanagar et al, 2015)

Interviews were taken among 48 Mexican-American mothers having young children to investigate the initiation and understanding of home oral hygiene practice for young children which helps to reduce early childhood caries. Some of mothers initiate two forms of oral hygiene: infant oral hygiene and regular tooth brushing and most of the mothers do not initiate oral hygiene practices in according to American Dental Association (ADA) recommendations. (Hoeft, Masterson and Barker, 2009.)

One hundred ninety-four participants were taken for a study to determine if poor oral hygiene is a risk factor for developing bacteremia after tooth brushing or single-tooth extraction. They found that poor oral hygiene is significantly associated with Bacteremia after tooth brushing and the oral hygiene of a tooth was not significantly associated with bacteremia after its extraction. (Lockhart et al, 2009.)

In a clinical trial to determine the effectiveness of three oral hygiene regimens to reduce oral malodor, thirty male volunteers are selected and divided randomly into two groups. Tooth brushing, mouth washing with chlorine dioxide, tongue cleaning and combination of those in different sequences for five weeks are performed by both groups. There is no significant reduction in oral malodor detected after one week of tooth brushing only. Addition of mouthwash or tongue cleaning to tooth brushing from the second week to fourth week causes significant reduction in volatile sulfur compounds (VSCs), responsible for oral malodor. The greatest reduction in VSCs was noticed at the fifth week after the practice of all three oral hygiene regimens. (Aung et al, 2015.)

The authors developed a study among 599 pregnant women by a written oral health questionnaire. They collected data on demographic information, oral hygiene practices and use of dental services during pregnancy. Among 599 participants, 83 percent reported brushing once or twice per day. Twenty-four percent reported flossing at least once daily where flossing more likely done by Hispanic women than white or African American women. Among seventy-four percent of the participants, no routine dental care was found

during pregnancy because of the lack of receiving routine dental care when not pregnant. Hispanic women were significantly less likely to receive routine dental care during pregnancy than were black or white women. (Boggess et al, 2010).

A cross-sectional hospital-based survey was carried out to know oral hygiene methods practiced by patients who visited Department of Dentistry at a Tertiary Care Hospital from Central Gujarat. Their mode of oral hygiene practice was also noted while examining and recording their history. Although a number of participants used modern and scientific material and instrument for oral hygiene, majority of them performed it only once a day, and none after every meal or at bed time. From this study it is noticed that there is a need to improve the frequency of oral hygiene procedure among the patients and use of dental floss needs to be increased. (Goryawala et al., 2016)

A cross-sectional study was carried out among 1000 of the patients visiting the Department of Periodontology of Gian Sagar Dental College and Hospital, Ramnagar, Patiala to assess the oral hygiene awareness and practices. An acute lack of oral hygiene awareness and limited knowledge of oral hygiene practices as well as effect of poor oral hygiene on systemic health was seen in this study. There is a quick need for educational programs to promote good oral hygiene and to correct oral hygiene practices. (Kapoor et al., 2014)

A total of 149 pregnant women in different stages of pregnancy were randomly selected to assess periodontal health knowledge, attitude, and practice of pregnant women in relation to the association between periodontal disease and pregnancy outcomes in Yazd, Iran in 2011. The results showed that 48.3% of women had moderate knowledge, 85.9% had moderate attitude and the majority of the women (49%) practiced oral hygiene in a moderate level. Among all the participants only 7.9% had been referred by gynecologists to dentists. (Fazele et al, 2013)

Chapter Three:

**MATERIALS &
METHODS**

3.1 Topics of the study:

A survey on oral hygiene status and awareness among university students in Bangladesh.

3.2 Objectives:

The objective of this study is to gain a better understanding of recent status of oral hygiene among them and their awareness about it.

3.3 Study design:

The survey was conducted in 500 university students of different department in East West University in Bangladesh. Our target population is young generation. Our survey sample was drawn from this target population and the information or data was obtained from the sample by collecting the information provided by them. Papers of questionnaires about oral hygiene status and awareness were provided to target populations and information was collected for the completion of the survey.

3.4 Sample Selection:

Our target population is young generation. Our survey sample was drawn from this target population

3.5 Field work:

The survey data was collected from the students of different department in East West University in Bangladesh from 25th July till 4th September, which was used for the development of study tools, collection of data and analysis

3.6 Data collection Method:

This paper consisted of multiple choice questions. An English language survey was developed based on information drawn from relevant literatures on oral hygiene status, awareness and procedure.

3.7 Data analysis:

In this survey the statistical analysis was performed using MS Excel and Microsoft word 2010.

3.8 Quaternaries: The questions upon which survey was conducted in given bellow:

Serial No:

Oral Hygiene Status and Awareness Among Pharmacy Students of EWU

- Admission year at EWU:
- Date of birth:

Gender: a) Male b) Female

How many times a day do you brush your teeth?	a) Once	b) Twice	c) More than twice
What is the time for cleaning your teeth?	a) In the morning before breakfast	b) In the morning after breakfast	c) In after noon d) Before going to bed
How long do you clean your teeth each time?	a) Less than 1 minute	b) 1-2 minutes	c) More than 2 minutes
What kind of cleaning agent do you use?	a)Toothpowder	b) Toothpaste	c) Ash
What kind of toothpaste do you use generally? (multiple answers possible)	a)Sensitive	b)Normal	c)Whitening d)Fluoride-free
Do you brush your teeth before going to bed regularly?	a) Yes	b) No	
Do you know if you suffer from bad breath?	a) Yes	b) No	
Do you use a mouthwash solution?	a) Yes	b) No	
If "YES",How often per week do you use it?	a) Daily	b) weekly	c) Several times in a month
Do you have the habit of doing gargle after eating of any food?	a) Yes	b) No	
How often do you clean your tongue?	a) Daily	b) weekly	c) Several times in a month
What type of cleaning agent do you use to clean your tongue?	a)Toothbrush	b) Tongue Scraper	

Have you lost any of your teeth?	a) Yes	b) No
If “YES” then how many? Ans:		
Do you notice bleeding from the gum during brushing?	a) Yes	b) No
Do you use dental floss?	a) Yes	b) No
If “YES”, How often per week? Ans:		
Do you use toothsticks?	a) Yes	b) No
If “YES”, How often per week? Ans:		

Do you smoke?	a) Yes	b) No		
If ‘YES’, How frequently?	a) Occasionally	b) 1-5 daily	c) 5-10 daily	d) More than 10 daily
How much you like sweet foods?	a) Less	b) Moderate	c) Very much	
How often do you eat those?	a) Daily	b) Several times in a week	c) Several times in a month	
How much you like fast food or street food items?	a) Less	b) Moderate	c) Very much	
Do you know about the theory of “ Brushing in the morning should be done after breakfast. ”?			a) Yes	b) No
If “YES” do you follow this?	a) Yes	b) No		
If “NO” you don’t follow this because of	a) laziness	b) Forgetfulness	c) Habituation	
Do you go to dentist for regular checkup?	a) Yes	b) No		
If “Yes”, how often do you go to dentist?	a) More than twice per year	b) 1–2 times per year	c) Every after 2 years	

Chapter Four:

**RESULT &
STATISTICAL
ANALYSIS**

4. Statistical analysis of data from survey

4.1 Percentage of participants from different departments:

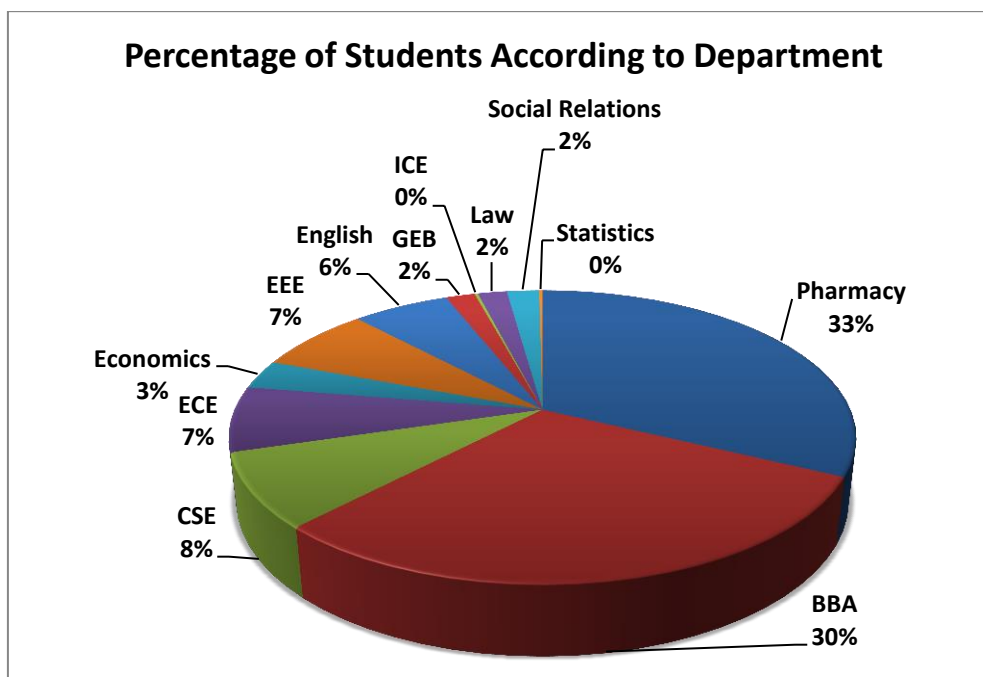


Figure: Percentage of participants according to different departments

According to this figure, among the university students

- Most of the students are from Pharmacy (33%) and BBA (30%) departments.
- Very less amount of students from GEB (2%), Law (2%), Social Relations (2%), Economics (3%) departments.
- The other students are from English (6%), EEE (7%), ECE (7%), CSE (8%) departments.

4.2 Average age of the students

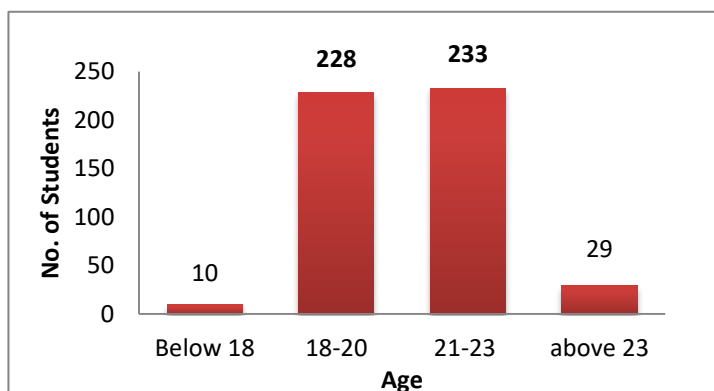


Figure: Age of the participants

As the study is conducted by university students, according to the figure:

- Many of the students having the age of 18-20 years and 21-23 years.
- Some of the students having the age above 23 years and
- Very little amount having the age below 18 years

4.3 Percentage of male and female students

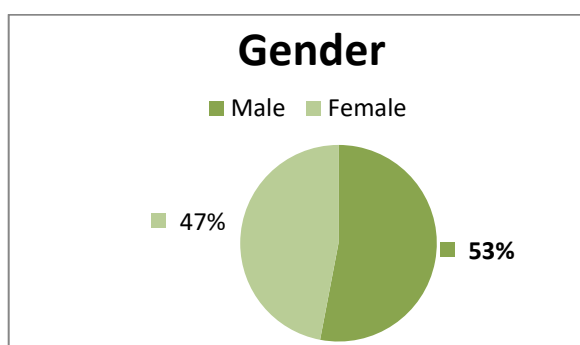


Figure: Percentage of male and female students

According to this figure,

- The percentage of male students are 53% and female Students are 47%.
- This means in this study male participants are much than female participants.

4.4 Teeth brushing frequency among the university students

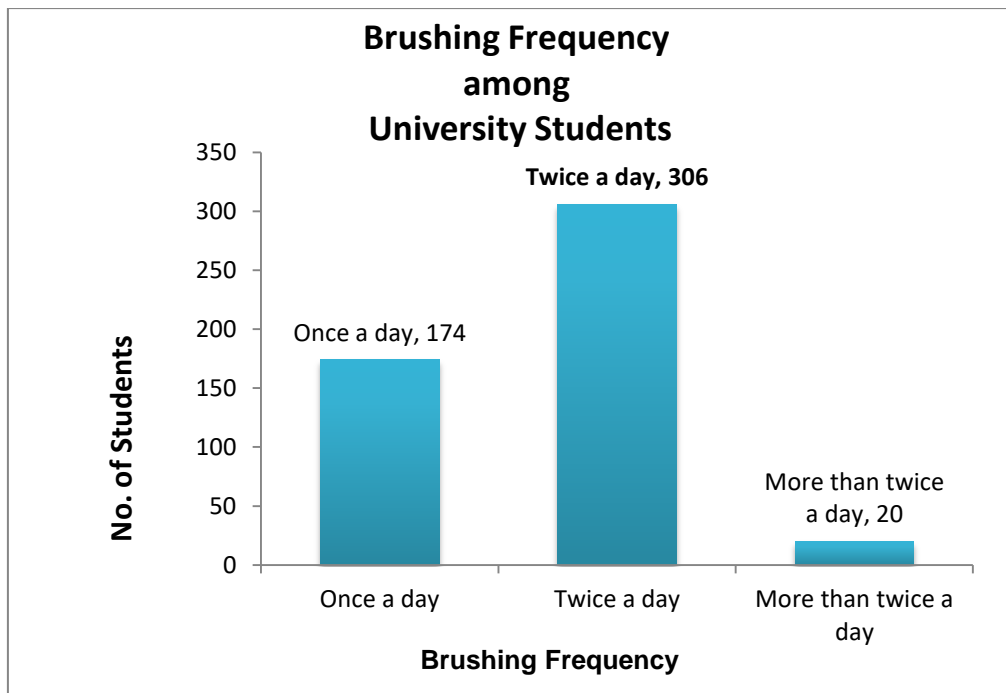


Figure: Brushing frequency among university students

According to the figure, among 500 students:

- ✓ 306 students brush their teeth twice a day
- ✓ 174 students follow once a day brushing and
- ✓ only 20 students brush their teeth more than twice a day.

4.5 Brushing frequency among the students of pharmacy department

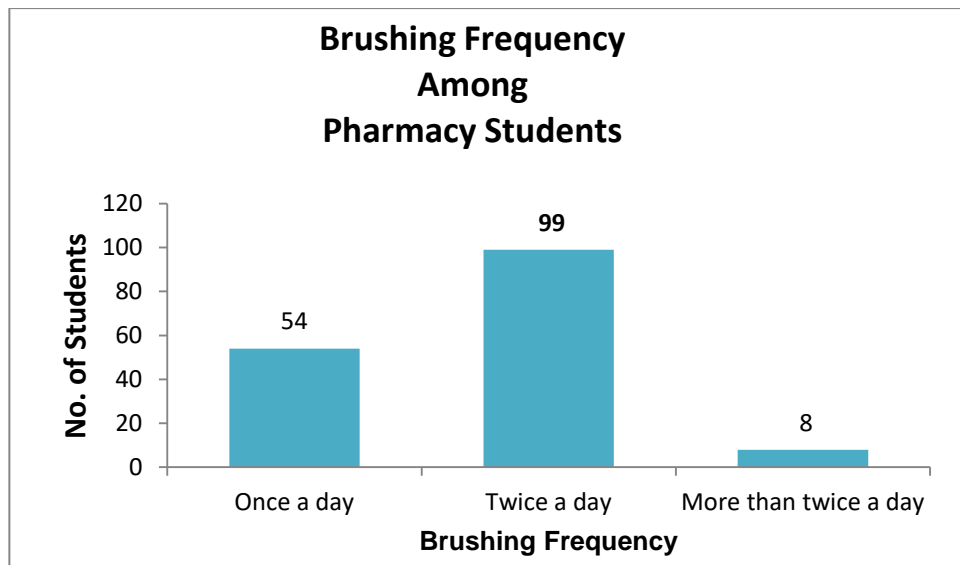


Figure: Brushing frequency among the students of pharmacy department

Among the 500 university students, the number of pharmacy students are about 161. According to this figure, among 161 students

- ✓ 99 students brush their teeth twice a day
- ✓ 54 students follow teeth brushing in once a day
- ✓ and 8 students brush their teeth more than twice a day.

4.6 Brushing frequency between Pharmacy department and others departments

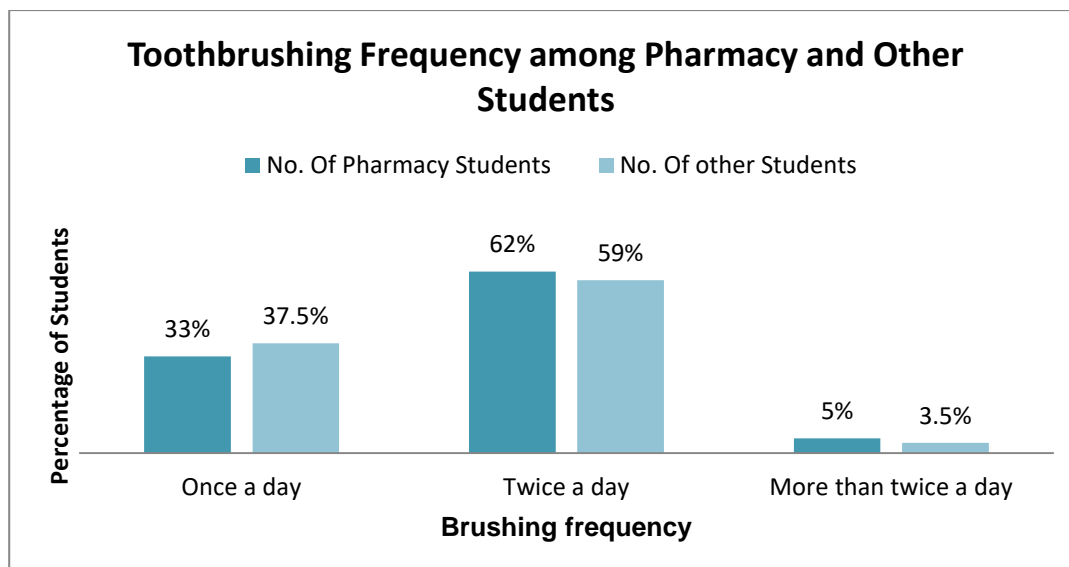


Figure: Brushing frequency between Pharmacy department and others departments

According to this figure,

- Pharmacy students brush twice a day more (62%) than other students (59%).
- Other students brush once a day more (37.5%) than pharmacy students (33%).
- Brushing more than twice a day is also done more by pharmacy students (5%) than other students (3.5%)

4.7 Comparing the frequency of teeth brushing among male and female students

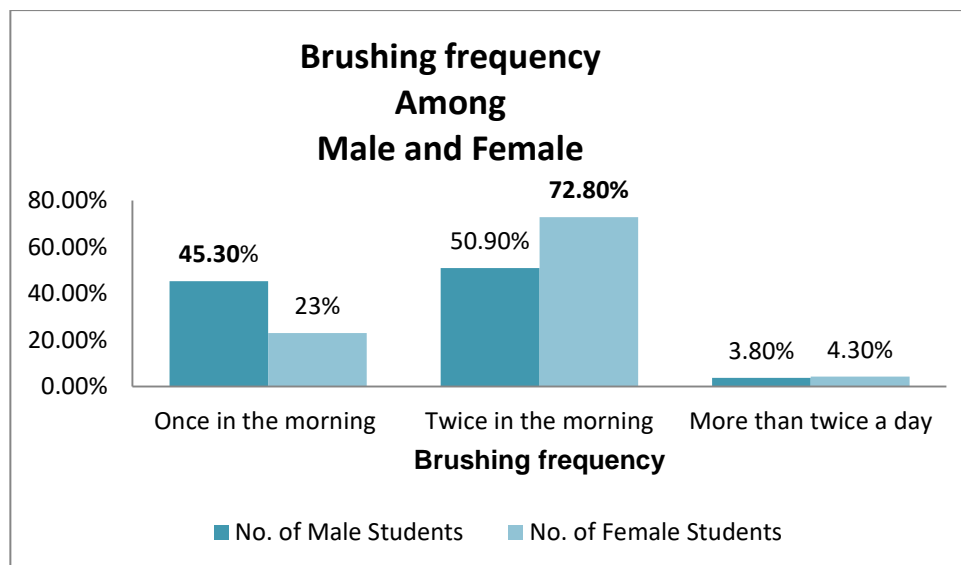


Figure: Brushing frequency among male and female

According to the figure,

- ✓ Teeth brushing twice a day is followed by female students more (72.80%) than male Students (50.90%).
- ✓ Where 45.30% of male students brush their teeth once a day, only 23% of female students do so.
- ✓ Almost equal percentage of male and female students, 3.80% and 4.30% respectively, brush their teeth more than twice a day.

4.8 Brushing time (Once a day) among university students

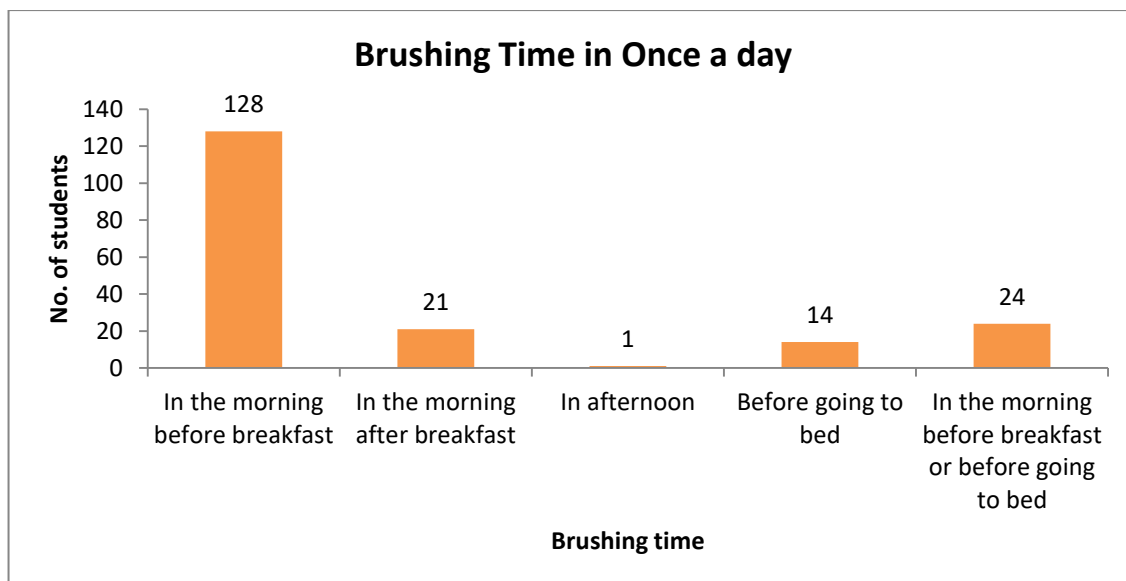


Figure: Brushing time (once a day) among university students

According to this figure,

- Most of the students (128) brush their teeth “In the morning before breakfast” in once a day.
- About 21 of 500 students, “In the morning after breakfast”
- 14 students in “before going to bed”
- About 24 students, “ In the morning before breakfast or before going to bed
- And only 1 “Inafternoon”

4.9 Comparing brushing time (once a day) between the students of pharmacy and others departments

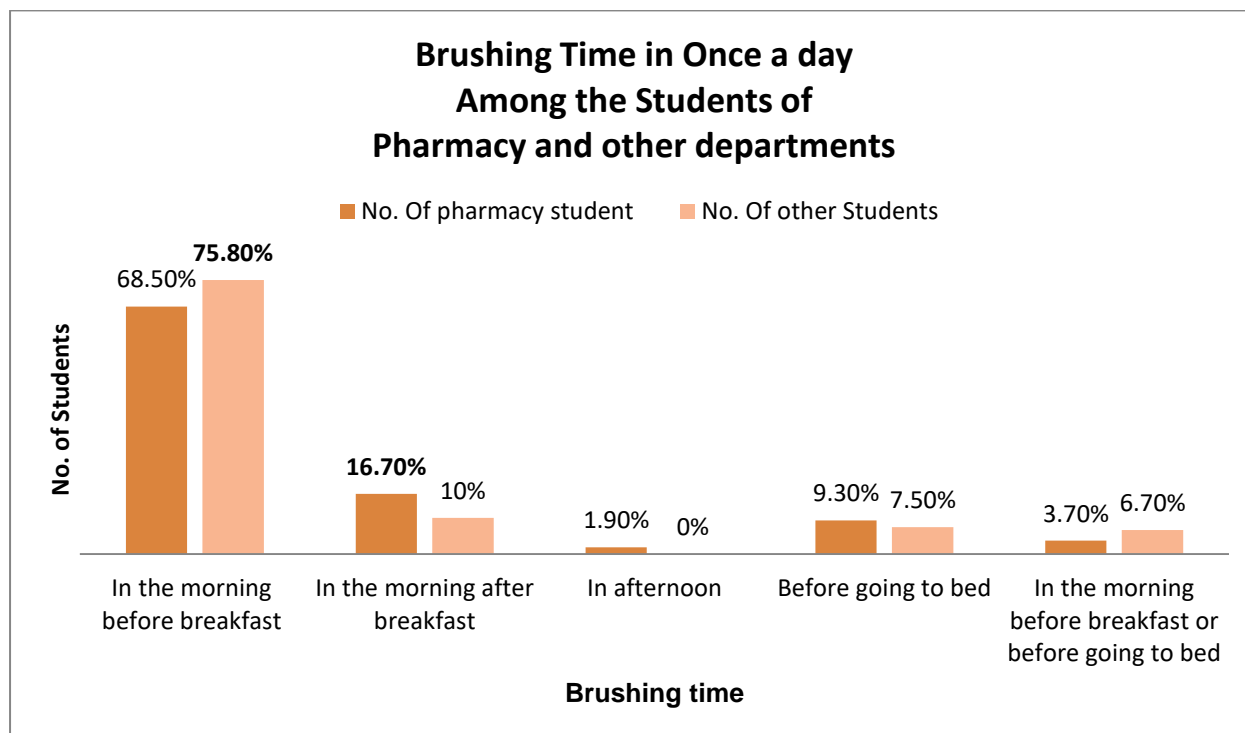


Figure: Brushing time (once a day) among the students of pharmacy and other departments

According to this figure,

- Other students brush their teeth “In the morning before breakfast” more (75.80%) than pharmacy students (68.50%).
- About 16.70% of pharmacy students brush their teeth “In the morning after breakfast” where only 10% of other students do so.
- Brushing “Before going to bed” is done more by pharmacy students (9.30%) than other students (7.50%).
- Other students brush “In the morning before breakfast or before going to bed” more (6.70%) than pharmacy students (3.70%)

4.10 Brushing habit "In the morning before breakfast" between male and female students

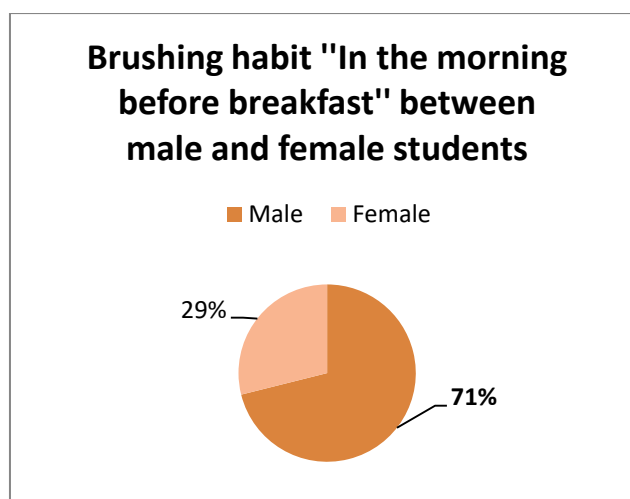


Figure: Brushing habit "In the morning before breakfast" between male and female students

According to this figure, Brushing habit of "In the morning before breakfast is followed mainly by male (71%) than female (29%) students

4.11 Brushing time (twice a day) among university students

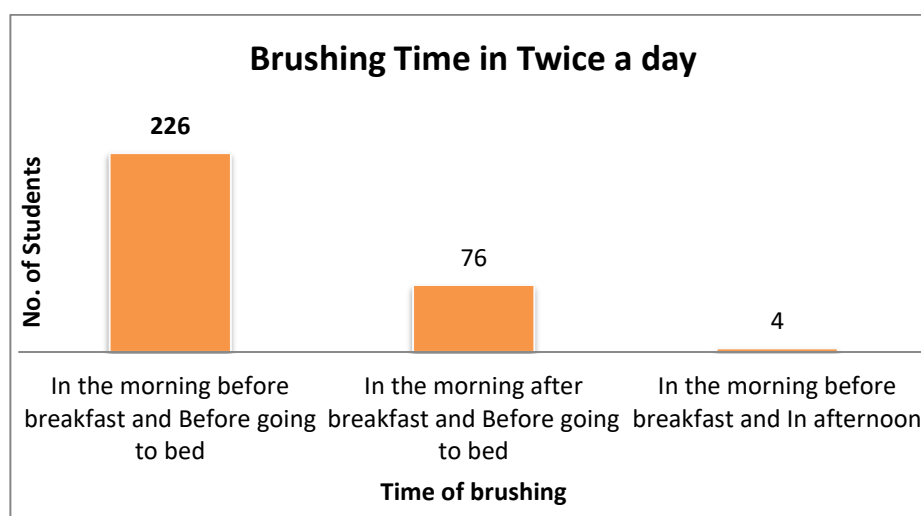


Figure: Brushing time (twice a day) among university students

According to this figure, About 226 out of 500 students brush "In the morning before breakfast and before going to bed. 76 of them brush "In the morning after breakfast and before going to bed" and 4 students follow "In the morning before breakfast and in the afternoon,

4.12 Brushing time (twice a day) between the students of pharmacy and other departments

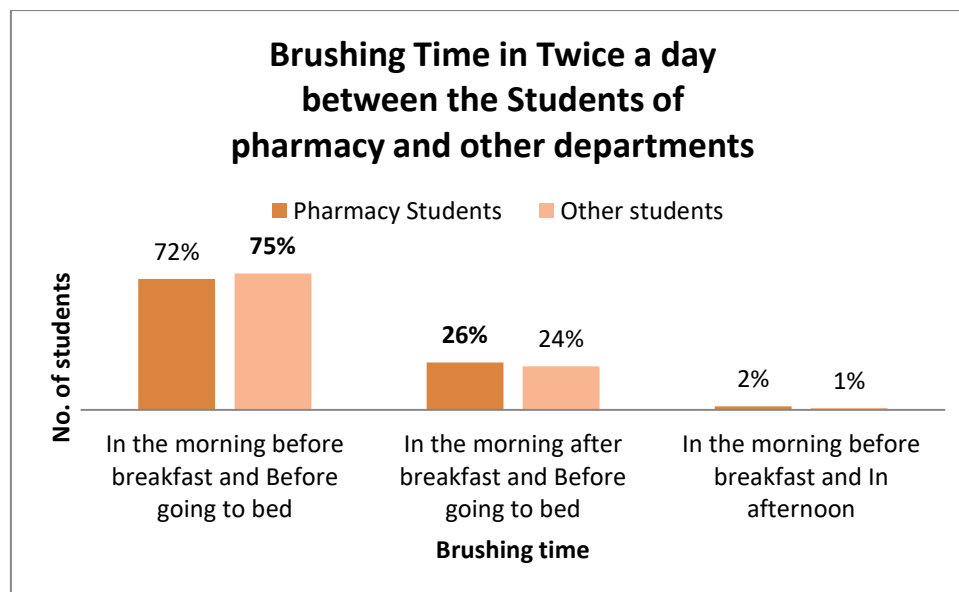


Figure: Brushing time (twice a day) between the students of pharmacy and other departments

According to this figure,

- The best brushing time is “In the morning after breakfast and before going to bed”, followed more by pharmacy students (26%) than other students (24%).
- For other students brushing time “In the morning before breakfast and before going to bed” is more (75%) than pharmacy students (72%).
- Only 2% of pharmacy students brush their teeth in “In the morning before breakfast and in afternoon” and 1% of other students done so.

4.13 Duration of teethbrushing among university students

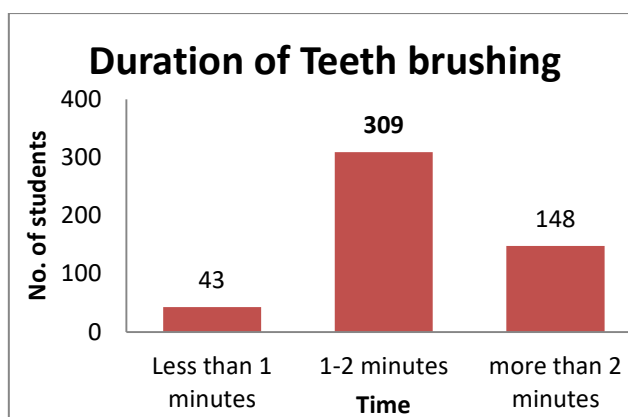


Figure: Duration of toothbrush among university students

According to this study, about 309 of 500 students brush for 1-2 minutes, 148 for more than 2 minutes and 43 for less than 1 minutes.

4.14 Duration of teeth brushing between the students of pharmacy and other departments

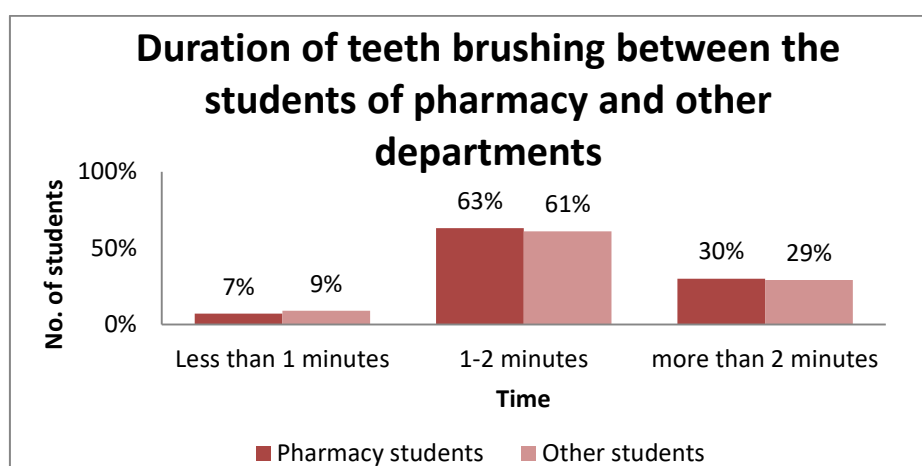


Figure: Duration of teeth brushing between the students of pharmacy and other departments

According to this study, about 63% pharmacy students brush for 1-2 minutes and 61% of other students do so. Brushing for more than 2 minutes, is followed by 30% of pharmacy students and 29% of other students. 9% of other students brush for less than 1 minute where only 7% of other students do so.

4.15 Duration of teeth brushing between male and female students

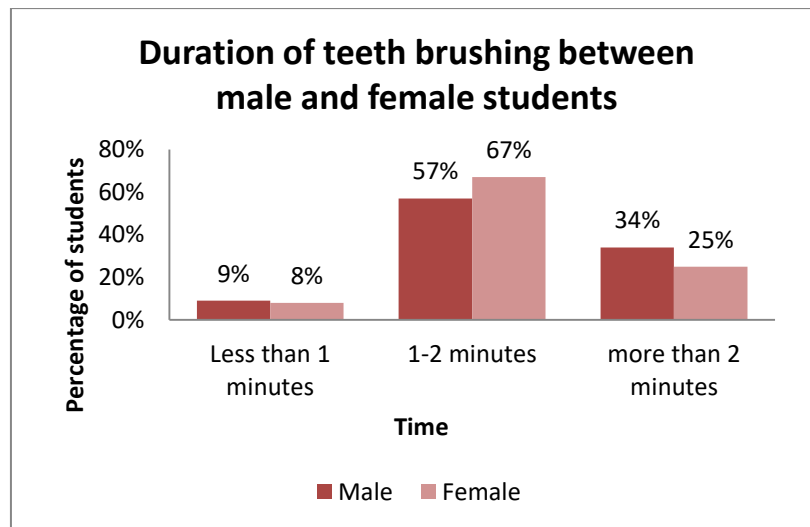


Figure: Duration of teeth brushing between male and female students

According to this study,

- 67% of female students have brushing time 1-2 minutes and 57% of male students have so.
- Brushing for more than 2 minutes is followed more by male students (34%) than female students (25%) and
- 9% of male and 8% of female students brush less than 1 minutes

4.16 Brushing frequency with duration of teeth brushing among university students

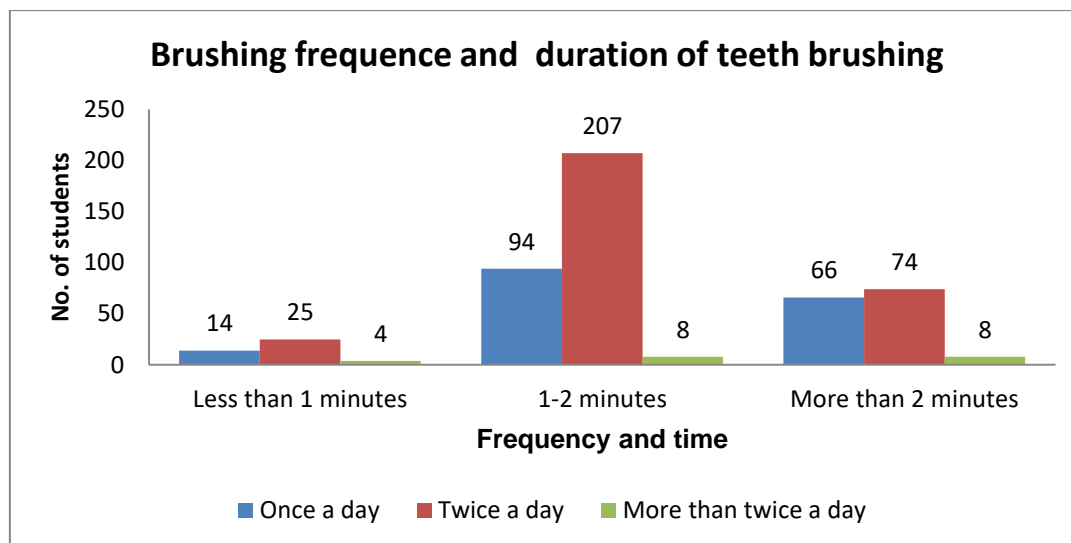


Figure: Brushing frequency with duration of teeth brushing among university students

According to this study,

- Among 500 students, 207 students brush their teeth twice a day for 1-2 minutes, 74 students for more than 2 minutes and 25 students for less than 1 minute.
- 94 students brush their teeth once a day for 1-2 minutes, 66 students for more than 2 minutes and 14 for less than 1 minute.
- 8 students brush more than twice a day for 1-2 minutes, 8 students for more than 2 minutes and 4 for less than 1 minutes.

4.17 Usage of different types of cleaning agent

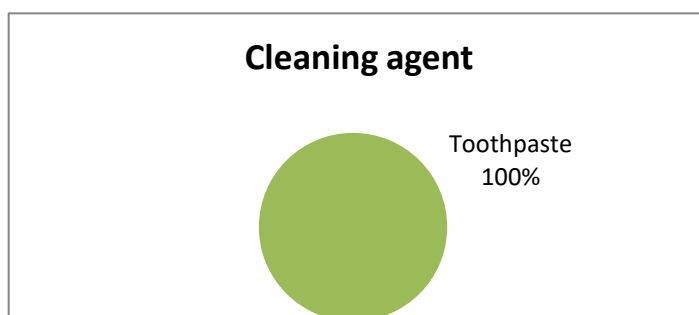


Figure: Types of cleaning agent used by university students

According to this study, 100% of students use toothpaste as a cleaning agent

4.18 Usage of different type of toothpaste

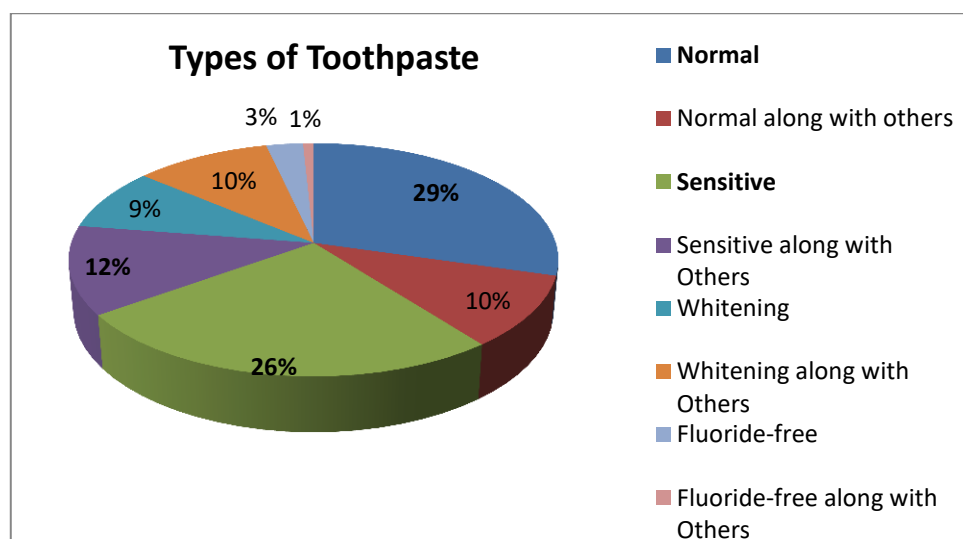


Figure: Variety of toothpaste used by university students

According to this study, 26% and 12% of students use sensitive type and sensitive along with other types of toothpaste respectively. 29% of students use normal and 10% of them use normal with other types of toothpaste, 9% use whitening and 10% use whitening along with other types, only 3% use fluoride-free and 1% use fluoride-free along with other types of toothpaste.

4.19 comparison of the variety of toothpaste used by male and female students

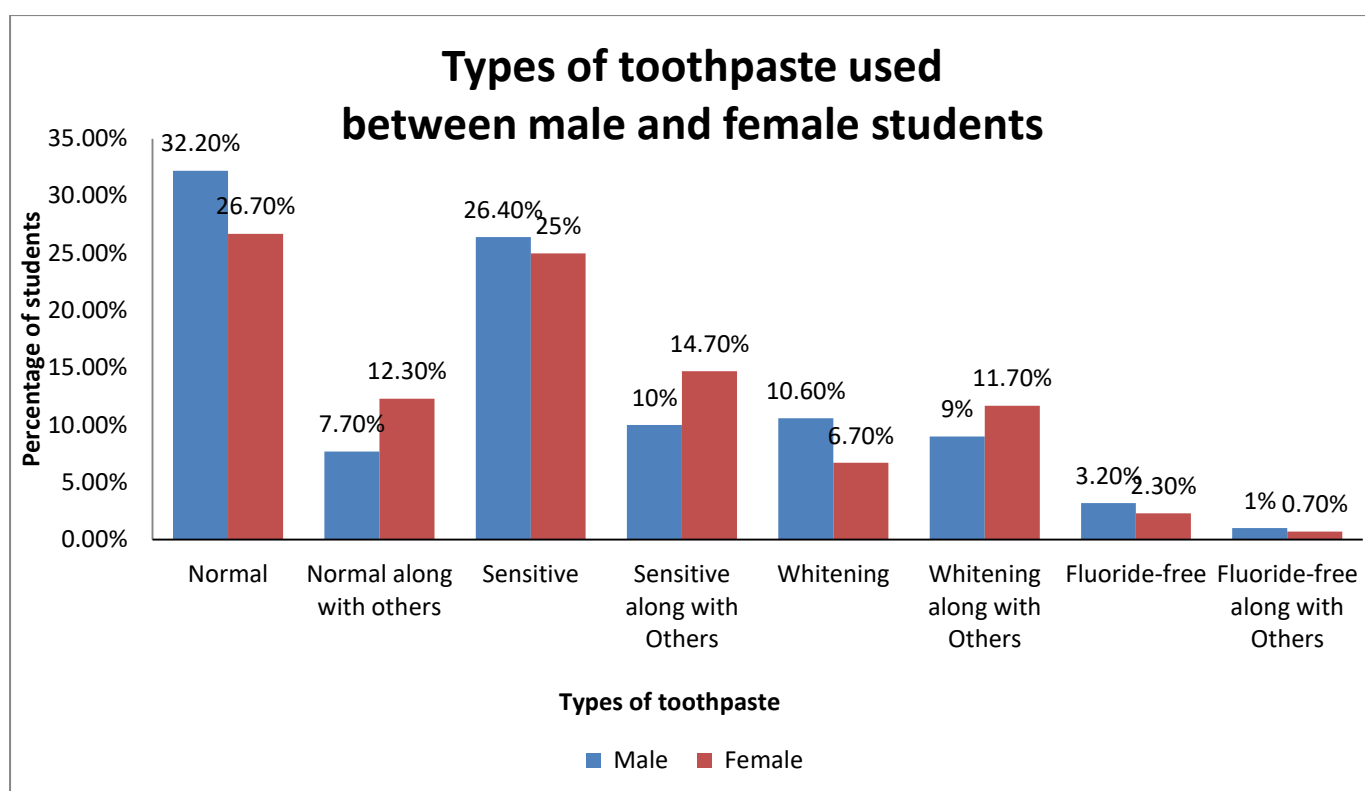


Figure: comparison of the variety of toothpaste used by male and female students

According to this study,

- 32.2% of male students use normal type of toothpaste while only 26.70% of female students do so.
- 12.3% of female and only 7.70% of male students use normal along with other types of toothpaste.
- Sensitive type of toothpaste used more by male (26.4%) than female (25%)
- Sensitive along with other types of toothpaste used mainly by female (14.7%) than male (10%) students
- 10.6% of male students use whitening while 6.7% of female do so
- 11.7% of female students use whitening along with other types of toothpaste while 9% of male students do so.
- 3.2% of male and 2.3% of female students use fluoride-free toothpaste
- 1% of male and 0.7% of female students use fluoride-free along with other types of toothpaste.

4.20 Habit of “brushing teeth before going to bed regularly” among university students

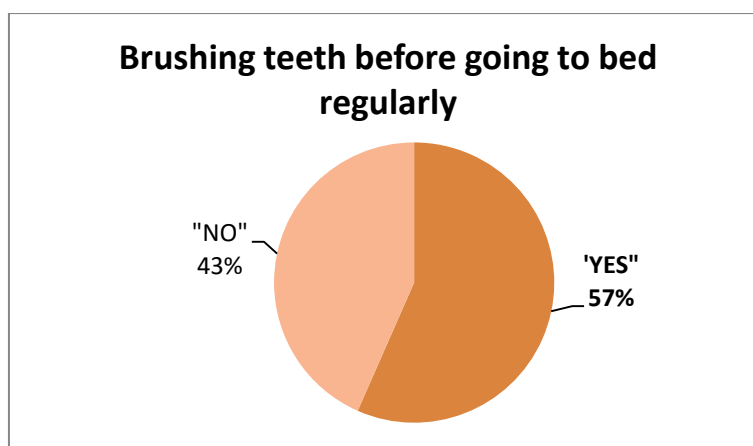


Figure: Habit of “brushing teeth before going to bed regularly” among university students

According to this study, About 57% of students brush before going to bed regularly and 43% of students don't do so.

4.21 Habit of “Teeth brushing before going to bed between male and female students

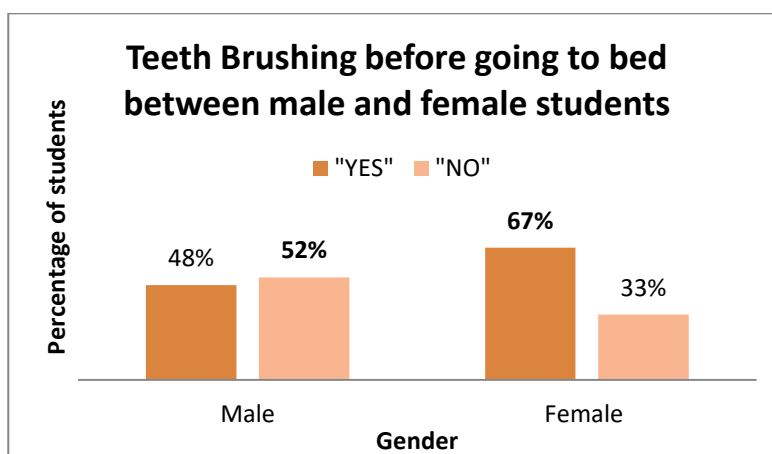


Figure: Habit of “Teeth brushing before going to bed between male and female students

According to this study, 67% of female and only 48% of male students brush before going to bed regularly.

And only 33% of female and 52% of male students don't do so.

4.22 Percentage of students having bad breath or not

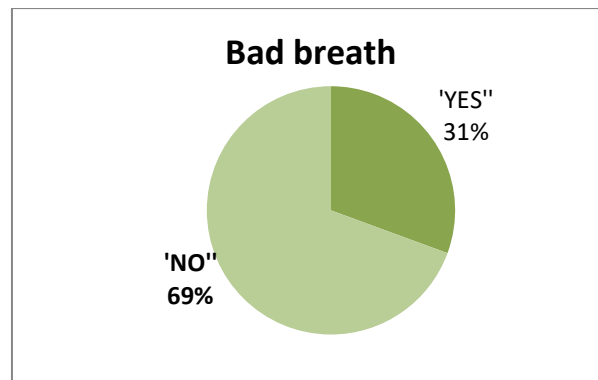


Figure: Percentage of students having bad breath or not

According to this study, about 69% of students don't suffer from bad breath and only about 31% of students have bad breath.

4.23 Comparison between the male and female students about their bad breath

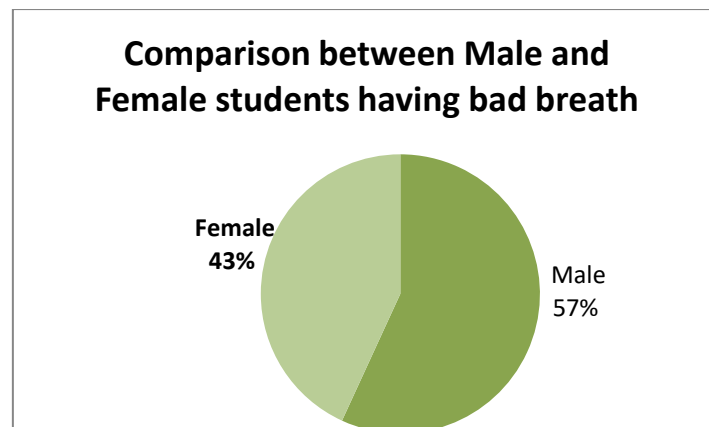


Figure: Comparison between the male and female students having bad breath

According to this study, more male students (57%) suffer from bad breath than female students (43%)

4.24 Percentage of students having bad breath and using mouthwash as a solution

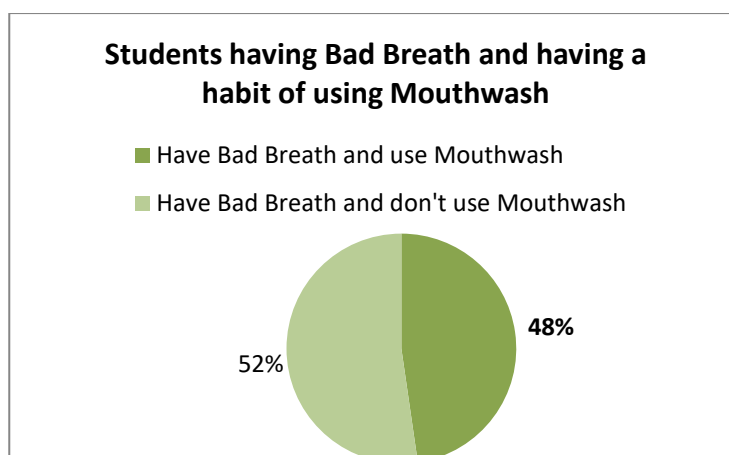


Figure: Percentage of students having bad breath and using mouthwash

According to this figure, only 48% of students use mouthwash because of having bad breath and 52% of students don't use mouthwash although they have bad breath.

4.25 Percentage of male and female students about their concern for their bad breath

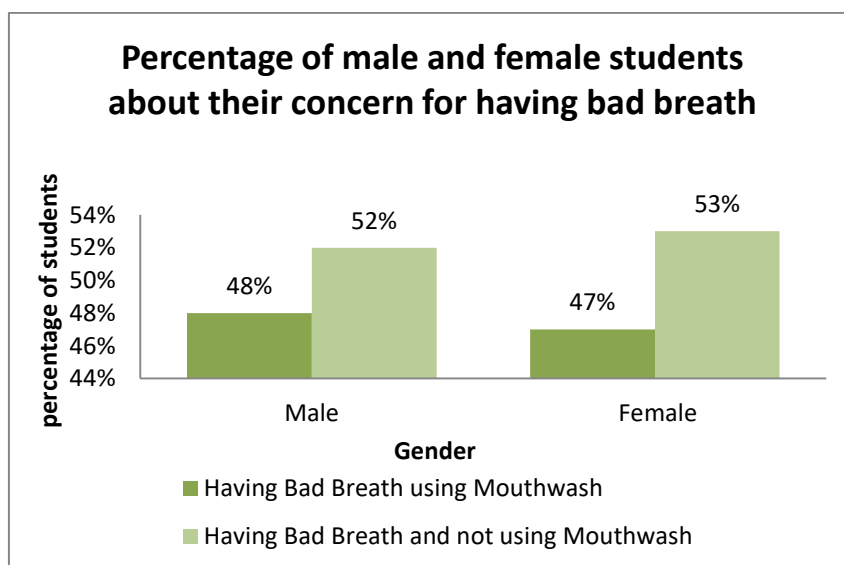


Figure: Percentage of male and female students about their concern for their bad breath

According to this figure, 53% of female and 52% of students use mouthwash for bad breath.

And 47% of female and 48% of male students don't use mouthwash although they suffer from bad breath.

4.26 Frequency of using mouthwash among university students

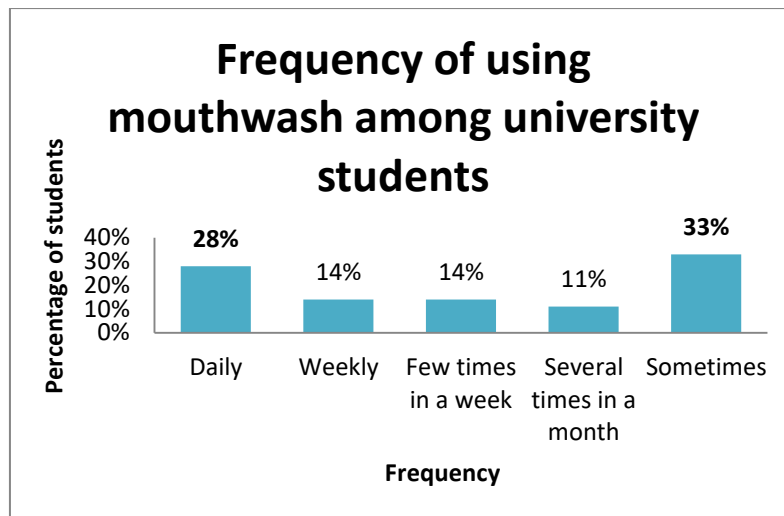


Figure: Frequency of using mouthwash among university students

According to this figure, 33% of students use mouthwash sometimes, 28% daily, 14% weekly, 14% few times in a week and 11% several times in a month.

4.27 Habit of gargle among the university students

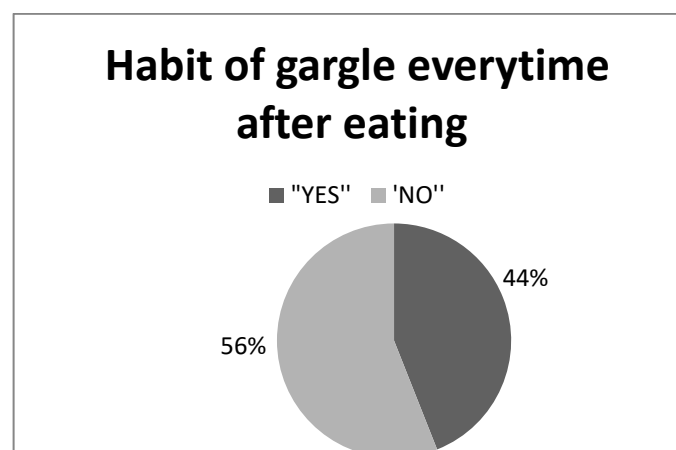


Figure: Habit of gargle among the university students

According to this figure, only 44% of students do gargle after eating everytime and 56% of students don't do so.

4.28 Comparison of the habit of gargle everytime after eating between the pharmacy and other departments students

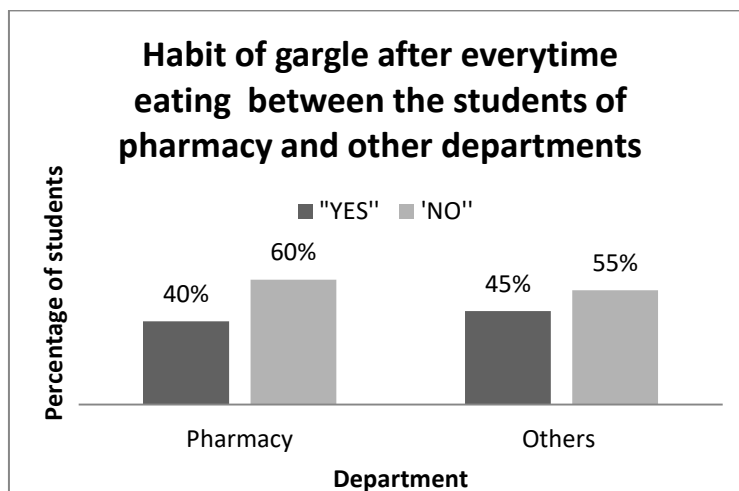


Figure: Comparison of the habit of gargle everytime after eating between the pharmacy and other departments students

According to this figure, 40% of pharmacy and 45% of other students do gargle after eating everytime. And 60% of pharmacy and 55% other students don't do so.

4.29 Comparison of the habit of gargle everytime after eating between the male and female students

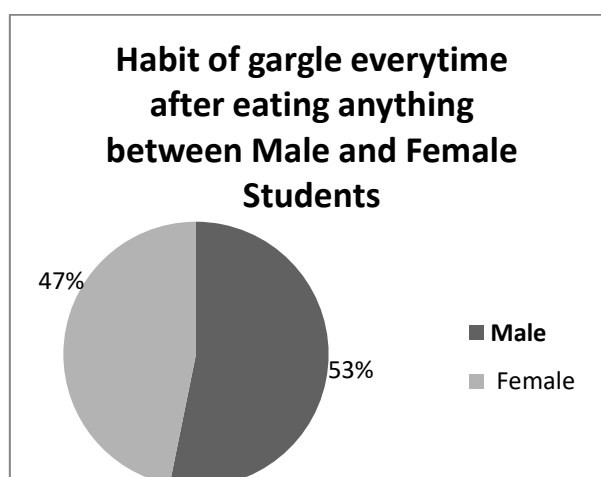


Figure: Comparison of the habit of gargle everytime after eating between the male and female students

According to this figure, male students (53%) do gargle after eating everytime than female students (47%)

4.30 Frequency of tongue cleaning among university students

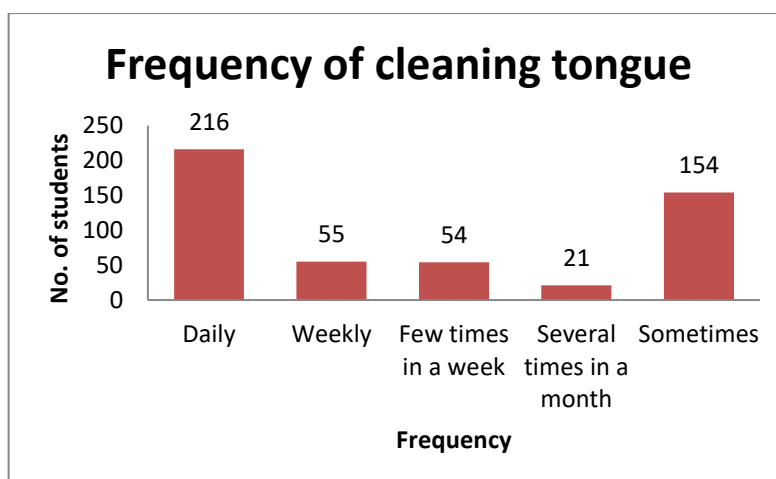


Figure: Frequency of tongue cleaning among university students

According to this figure, among 500 students. 216 of them clean tongue daily, 154 of them clean sometimes, 55 of them weekly, 54 for few times in a week and 21 for several times in a month.

4.31 Habit of cleaning tongue daily and sometimes between the students of pharmacy and other departments

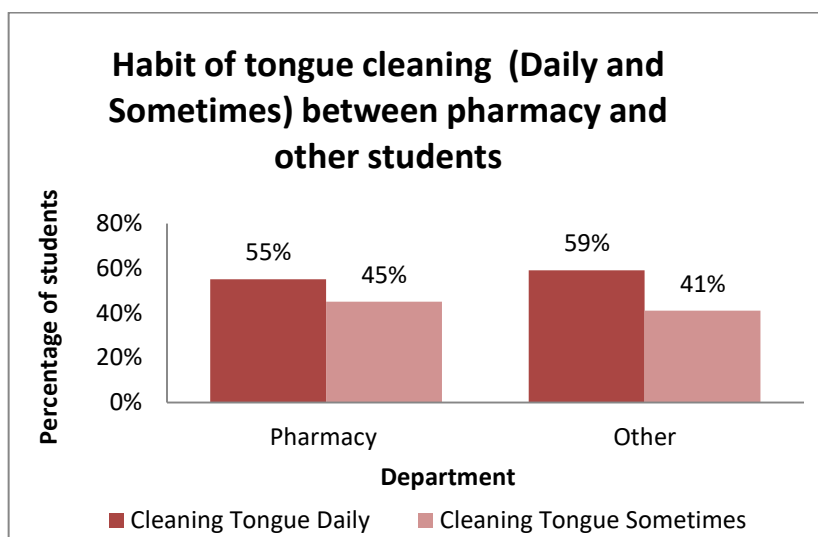


Figure: Habit of cleaning tongue daily and sometimes between the students of pharmacy and other departments

According to this figure, 55% of pharmacy and 59% of other students clean tongue daily and 45% of pharmacy and 41% of other students clean tongue sometimes.

4.32 Habit of cleaning tongue daily and sometimes between the male and female students

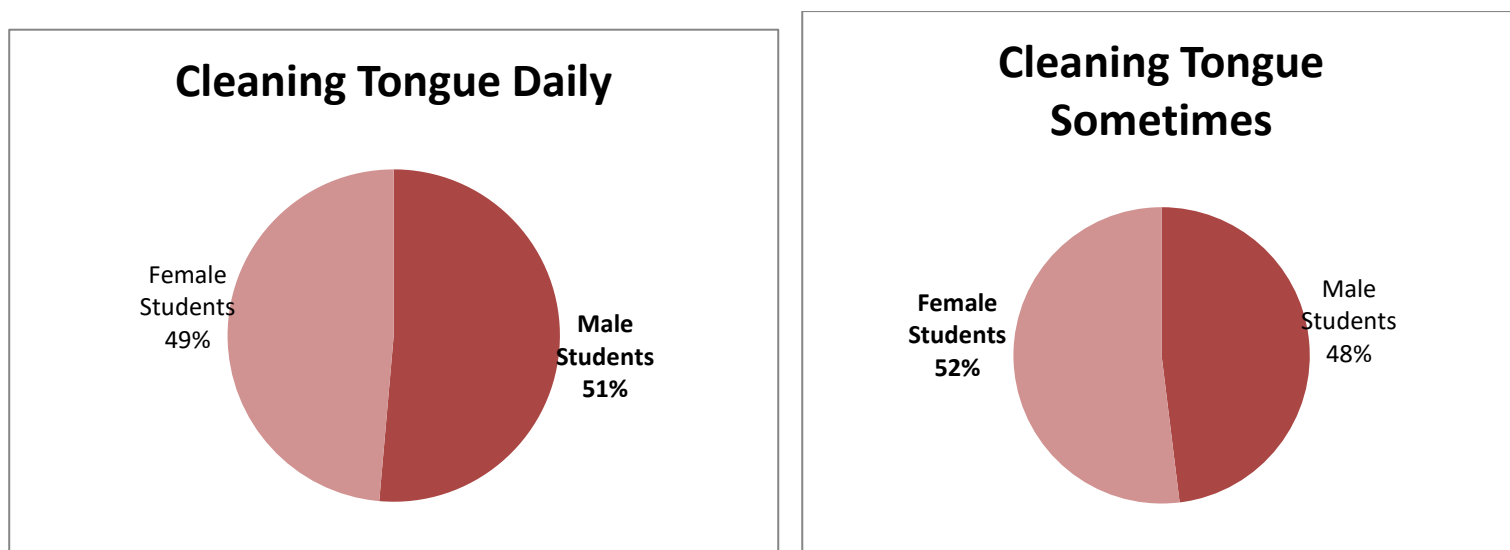


Figure: Habit of cleaning tongue daily and sometimes between the male and female students

According to this figure, 51% of male and 49% of female students clean tongue daily. Only 48% of male and 52% of female students clean tongue sometimes.

4.33 Types of tongue cleaning agent used among the university students

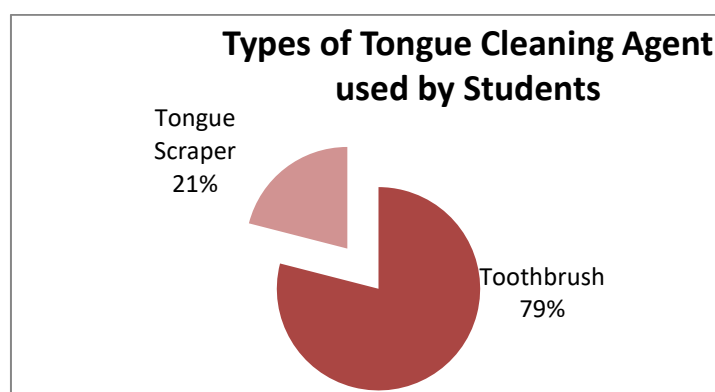


Figure: Types of tongue cleaning agent used among the university students

According to this figure, 79% of students use toothbrush and 21% of students use tongue scraper for cleaning tongue.

4.34 Percentage of students having complete set of teeth

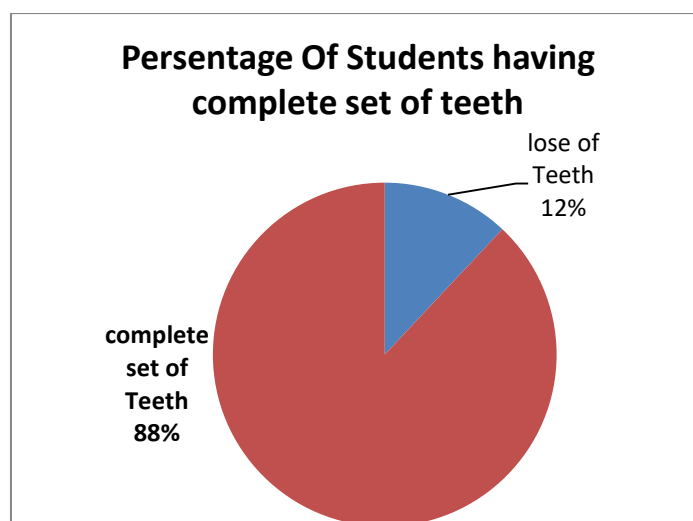


Figure: Percentage of students having complete set of teeth

According to this figure, 88% of students have complete set of teeth while 12% have some loss of teeth

4.35 The amount of teeth lost among university students

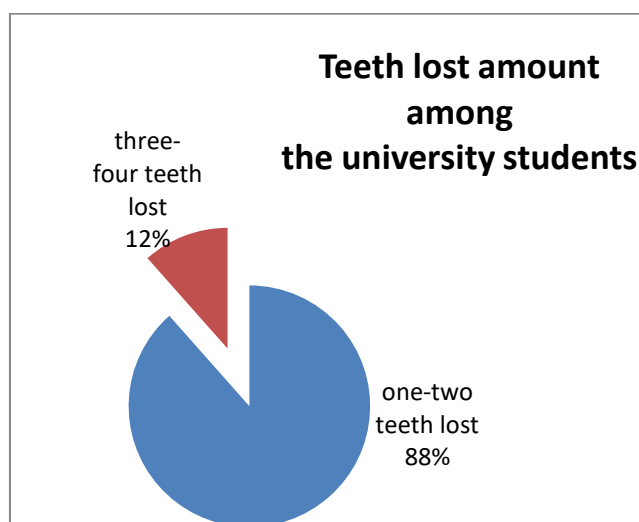


Figure: The amount of teeth lost among university students

According to this figure, 88% of students lose 1-2 teeth and 12% of students lose 3-4 teeth

4.36 Gum bleeding during teeth brushing among the university students

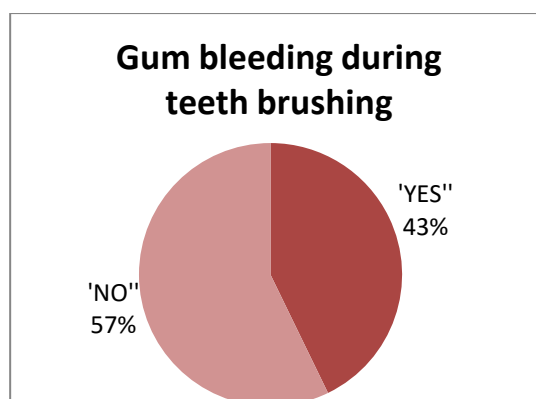


Figure: Gum bleeding during teeth brushing among the university students

According to this figure, 57% of students don't have gum bleeding and 43% of students have gum bleeding during teeth brushing

4.37 Comparison of gum bleeding during teeth brushing between the students of pharmacy and other departments

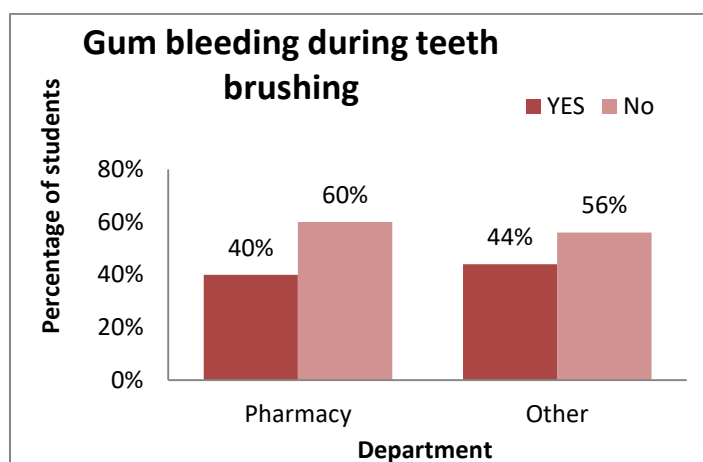


Figure: Comparison of gum bleeding during teeth brushing between the students of pharmacy and other departments

According to this figure, 60% of pharmacy and 56% of other students don't have gum bleeding during teeth brushing while 40% of pharmacy and 44% of other students have gum bleeding during teeth brushing.

4.38 Habit of using dental floss among the university students

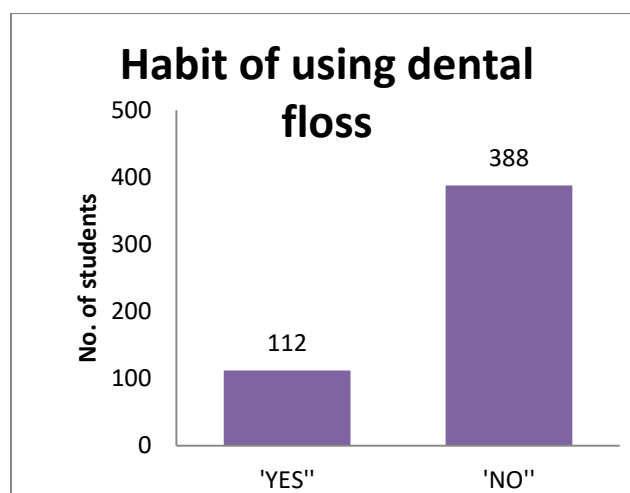


Figure: Habit of using dental floss among the university students

According to this figure, Among 500 students, 388 students don't use dental floss and only 112 students use dental floss.

4.39 Habit of using dental floss between the students of pharmacy and other departments

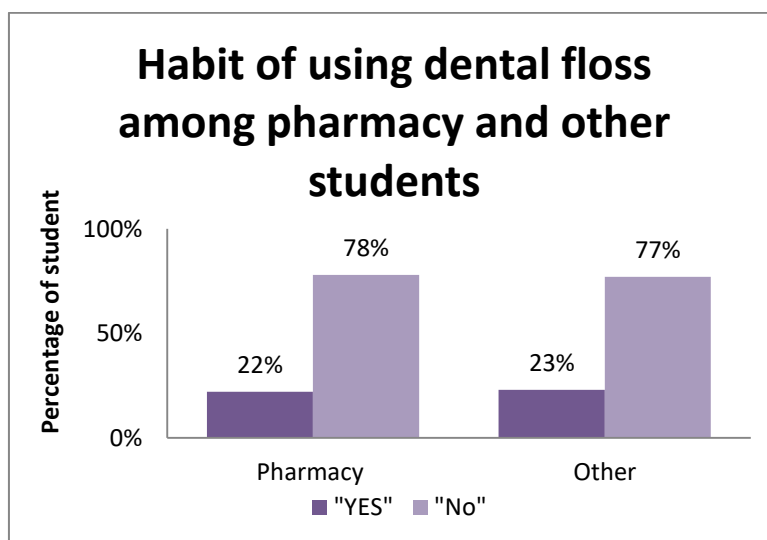


Figure: Habit of using dental floss between the students of pharmacy and other departments

According to this figure, about 78% of pharmacy and 77% of other students don't use floss. About 22% of pharmacy and 23% of other students use dental floss.

4.40 Habit of using dental floss among male and female students

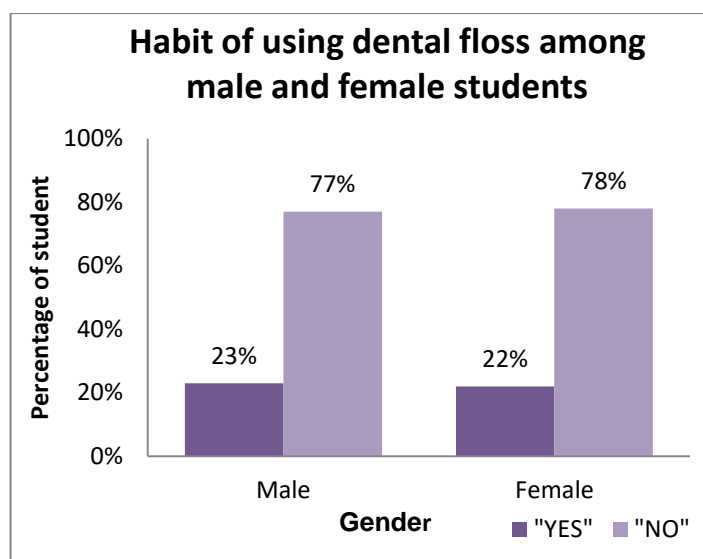


Figure: Habit of using dental floss among male and female students

According to this figure, 77% of male and 78% of female students don't use dental floss and 23% of male and 22% of female students use dental floss.

4.41 Frequency of using dental floss among university students

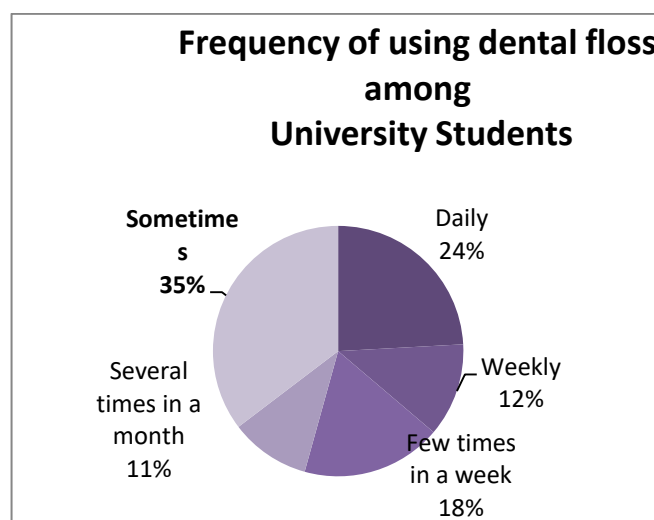


Figure: Frequency of using dental floss among university students

According to this figure, 24% of students use dental floss daily, 12% weekly, 18% few times in a week, 11% several times in a month and 35% of students use it sometimes.

4.42 Percentage of student using toothpicks

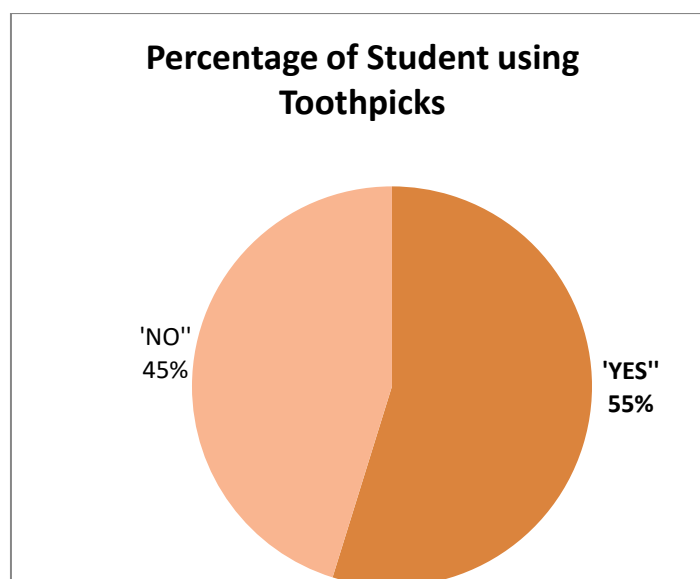


Figure: Percentage of student using toothpicks

According to this figure, 55% of students use toothpicks after eating meal and 45% of them don't do so.

4.43 Frequency of using toothpicks after eating meal

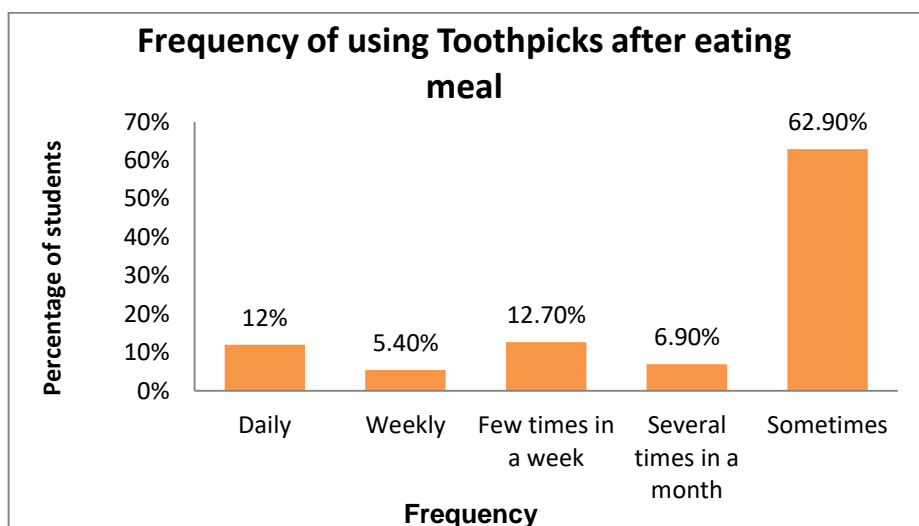


Figure: Frequency of using toothpicks after eating meal

According to this figure, 12% of students use toothpicks daily after eating meal, 5.4% weekly, 12.7% few times in a week, 6.9% several times in a month and 62.9% of students use toothpicks sometimes after eating meal.

4.44 Smoking habit among male students

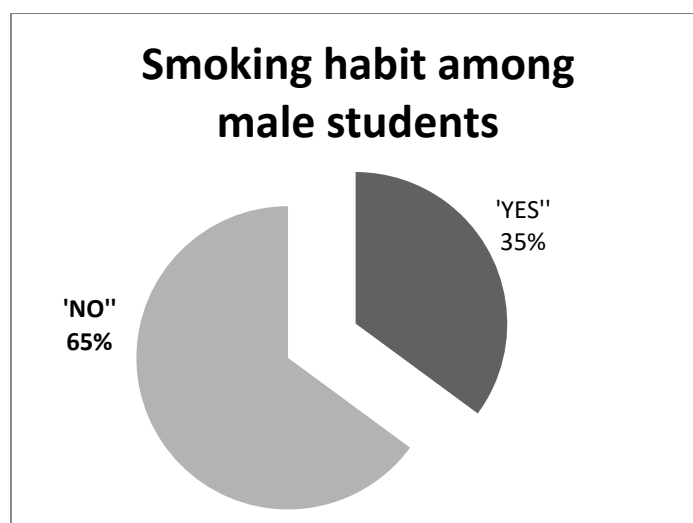


Figure: Smoking habit among male students

According to this figure, 65% of male students don't smoke and only 35% of them do so.

4.45 Percentage of doing smoke between the student of pharmacy and other department

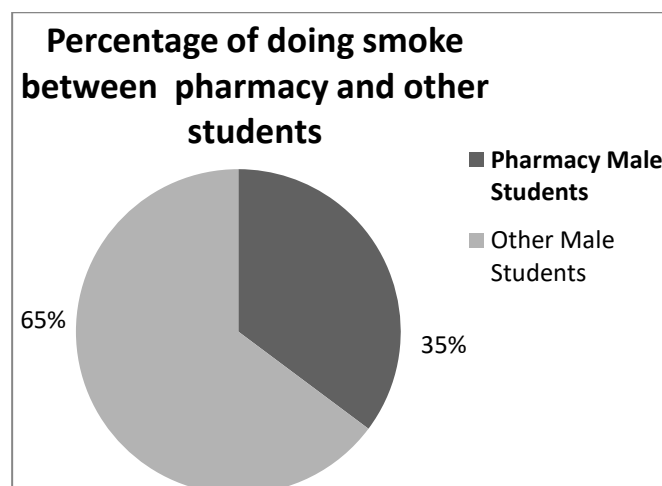


Figure: Percentage of doing smoke between the student of pharmacy and other department

According to this figure, only 35% of male students from pharmacy department do smoke and 65% of male students from other departments do so.

4.46 Frequency of doing smoke among male students

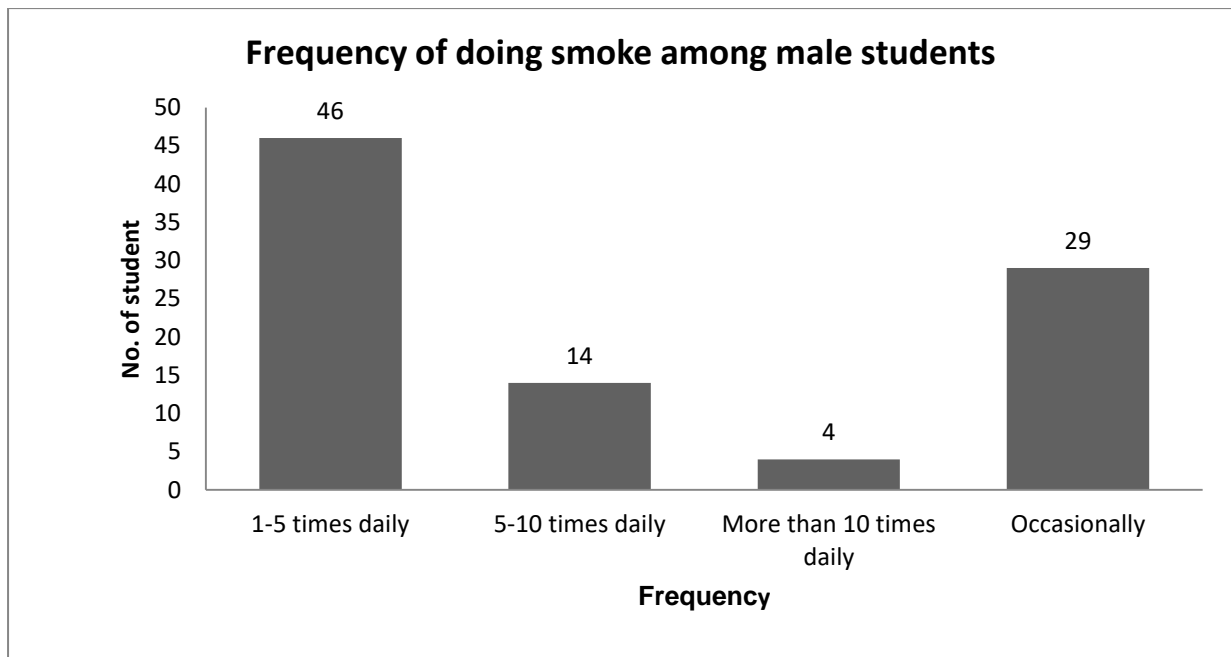


Figure: Frequency of doing smoke among male students

According to this figure,

Among the male students who smoke,

- 46 male students smoke 1-5 times daily.
- 14 students 5-10 times daily
- 4 of them more than 10 times daily
- and 29 of them smoke occasionally

4.47 Sweet food liking among university students

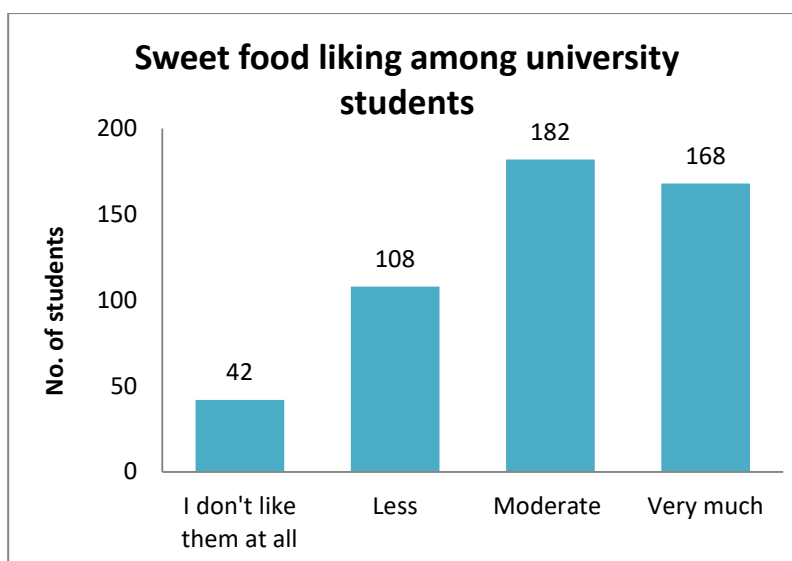


Figure: Sweet food liking among university students

According to this figure, among 500 university students, 168 of them like sweet foods very much, 182 of them moderate, 108 of them less and 42 of students don't like sweet foods at all.

4.48 Frequency of taking sweet foods

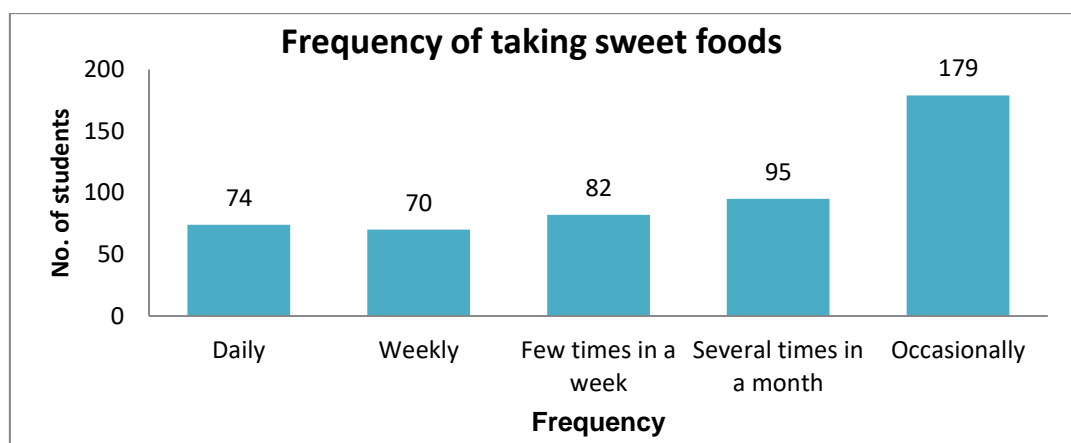


Figure: Frequency of taking sweet foods

According to this figure, 179 of 500 take sweet foods occasionally, 95 of them several times in a month, 82 of them few times in a week and 74 students take those foods daily.

4.49 Frequency of taking sweet foods who like it "Very Much"

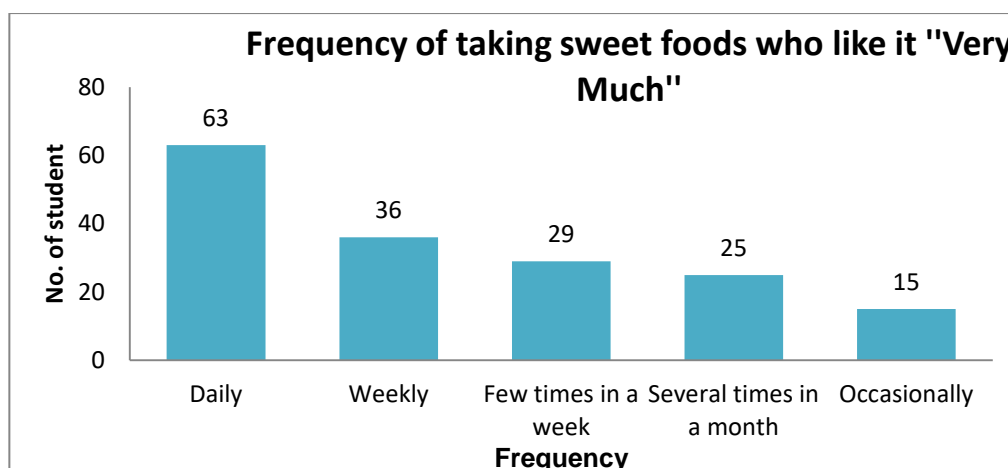


Figure: Frequency of taking sweet foods who like it "Very Much"

According to this figure, among the students who like sweet foods very much, 63 students take those daily, 36 students weekly, 29 few times in a week, 25 several times in a week and 15 students take occasionally.

4.50 Brushing frequency among the university students who like sweet foods "Very Much" and take those "Daily"

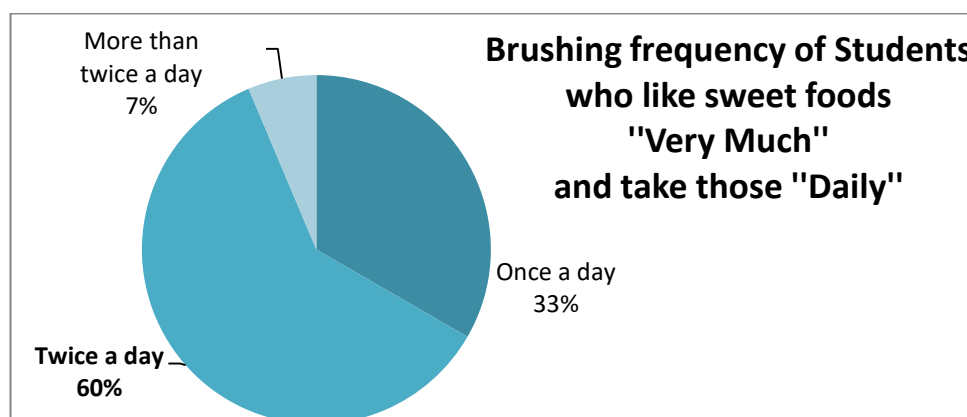


Figure: Brushing frequency among the university students who like sweet foods "Very Much" and take those "Daily"

According to this figure, among the students who like sweet foods very much and take those daily, 60% of them brush their teeth twice a day, 33% of students once a day and 7% of them brush more than twice a day.

4.51 Percentage of Students having gum bleeding who like sweet foods “Very Much” and take those “Daily”

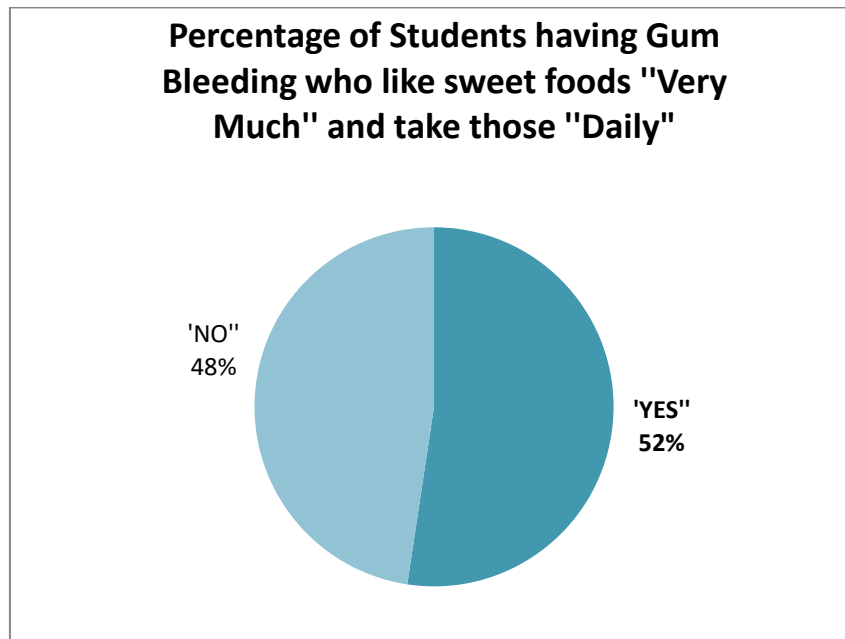


Figure: Figure: Percentage of Students having gum bleeding who like sweet foods “Very Much” and take those “Daily

According to this figure,

- 52% of students who like sweet foods very much and take those daily, have gum bleeding .
- 48% of them don't have gum bleeding although they like sweet foods very much and take those daily.

4.52 No. of students liking fast food items

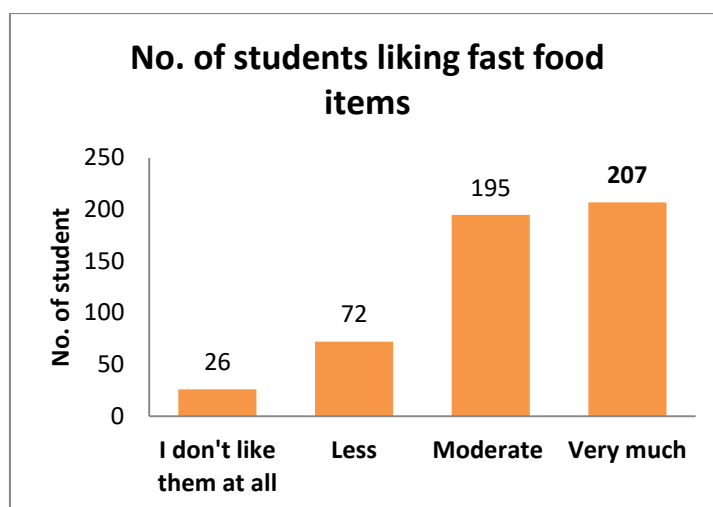


Figure: No. of students liking fast food items

According to this figure, 207 of 500 students like fast food items very much, 195 of them like those moderate, 72 like less and 26 of them don't like fast food items at all.

4.53 Brushing frequency of those students who like fast food "Very Much"

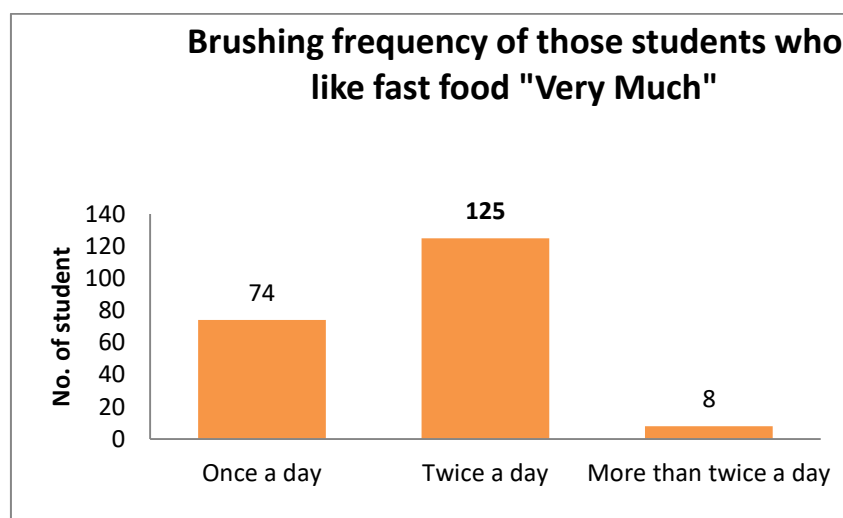


Figure: Brushing frequency of those students who like fast food "Very Much"

According to this figure, among the students who like fast food items very much, 125 students brush their teeth twice a day, 74 students once a day and 8 of them brush more than twice a day.

4.54 Comparison between male and female students about liking both sweet foods and fast food items “Very Much”

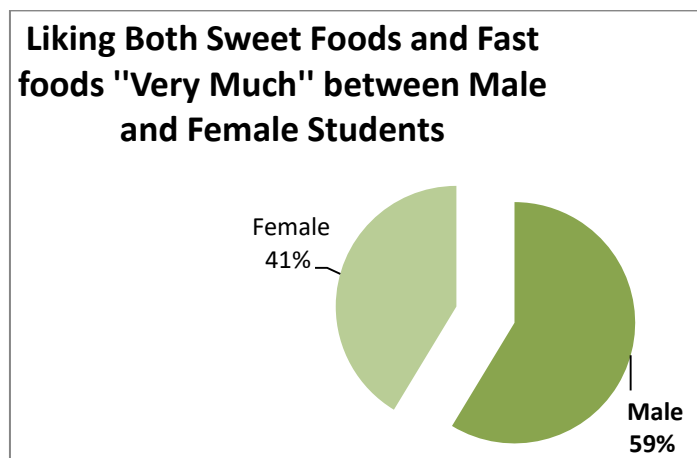


Figure: Comparison between male and female students about liking both sweet foods and fast food items “Very Much”

According to this figure, 59% of male students like the sweet foods and fast foods very much and 41% of female students like those very much.

4.55 Comparison between pharmacy and other departments’ students about liking both sweet foods and fast food items “Very Much”

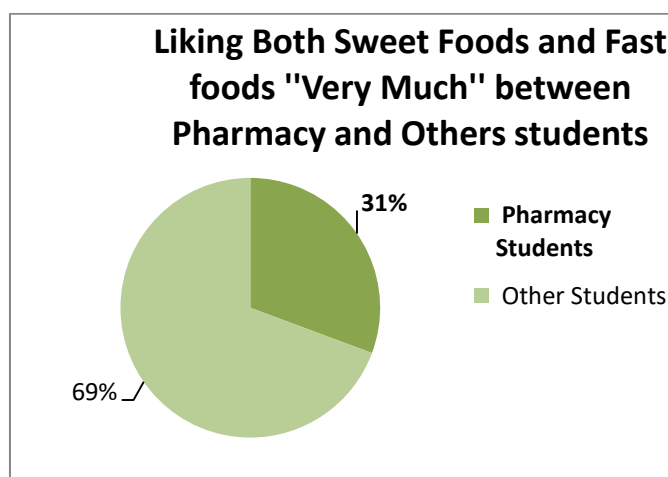


Figure: Comparison between pharmacy and other departments’ students about liking both sweet foods and fast food items “Very Much”

According to this figure, only 31% of pharmacy students like both sweet foods and fast foods very much and 69% of other students of different departments like those very much.

4.56 Percentage of students about knowing or not knowing the theory of “Brushing should be done after breakfast”

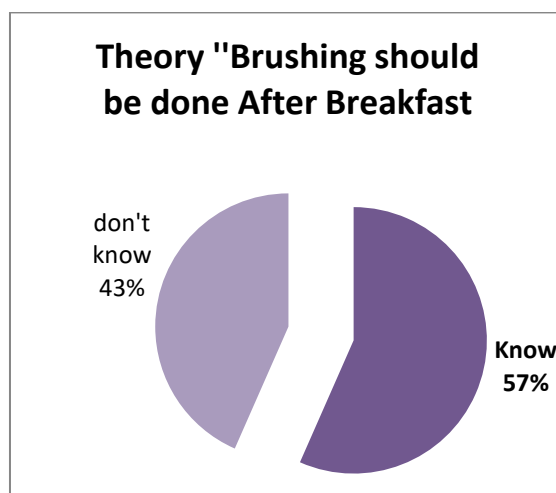


Figure: Percentage of students about knowing or not knowing the theory of “Brushing should be done after breakfast”

According to this figure, 57% of students know the theory of “Brushing should be done after breakfast” and 43% of students don’t know this.

4.57 No. of student about following the theory

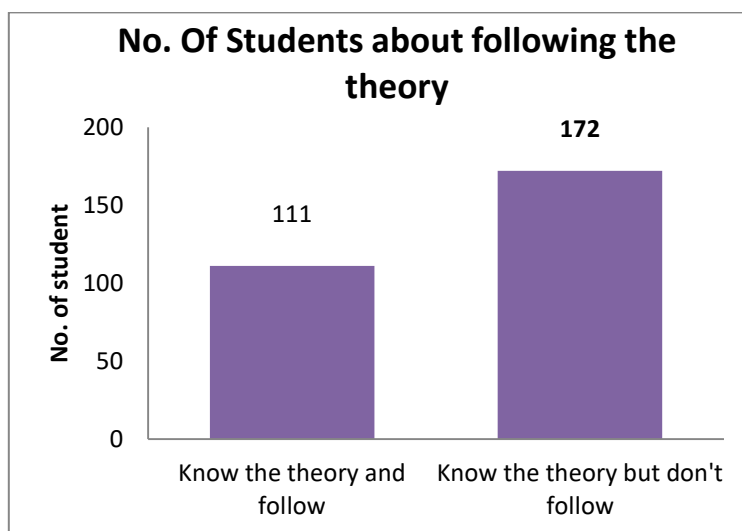


Figure: No. of student about following the theory

According to this figure, among the students who know this theory, 111 students follow this while 172 students don’t follow this.

4.58 Comparison between male and female students about following the theory

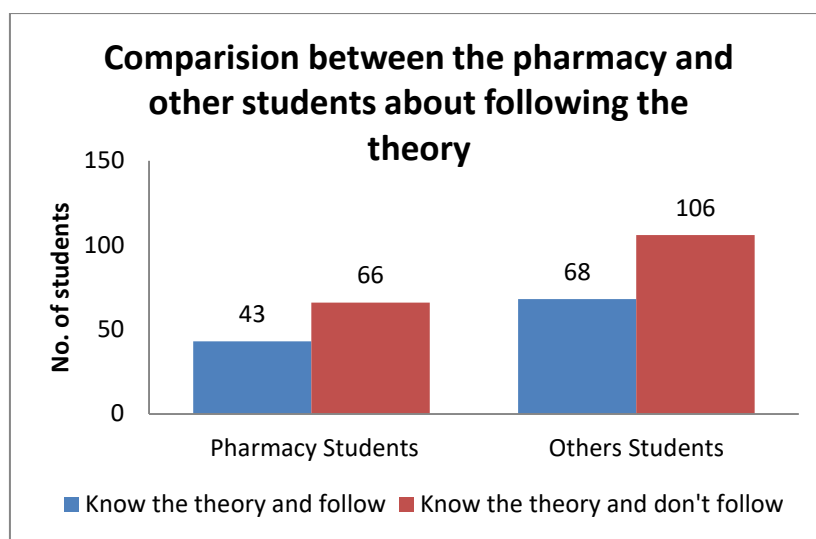


Figure: Comparison between male and female students about following the theory

According to this figure, among the students who know this theory, 106 other students and 66 pharmacy students don't follow this. Only 68 other students and 43 pharmacy students follow the theory.

4.59 Reasons of not following the theory among students

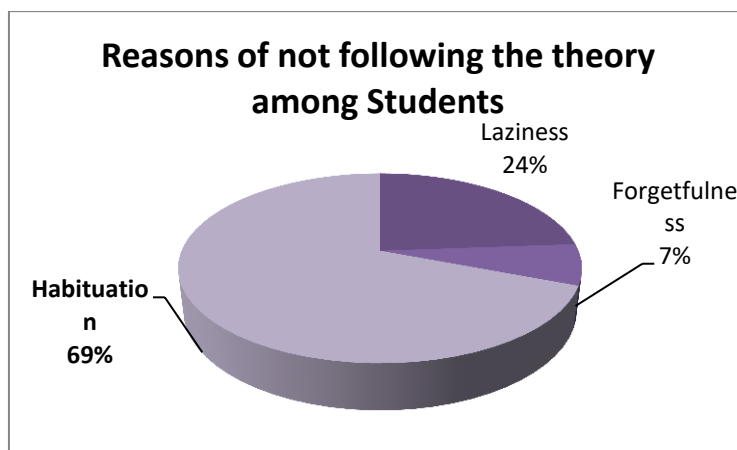


Figure: Reasons of not following the theory among students

According to this figure, about 69% of students don't follow this because of habituation, 24% for laziness and 7% for forgetfulness.

4.60 Visiting to doctor among university students

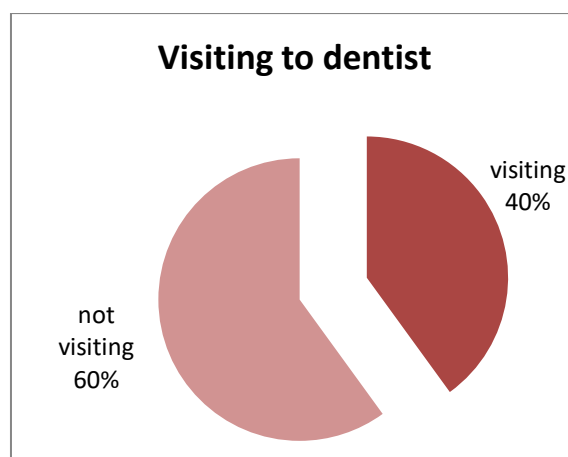


Figure: Visiting to doctor among university students

According to this figure, about 60% of students don't visit dentist and 40% of students visit dentist.

4.61 Reason of visiting to dentist among university students

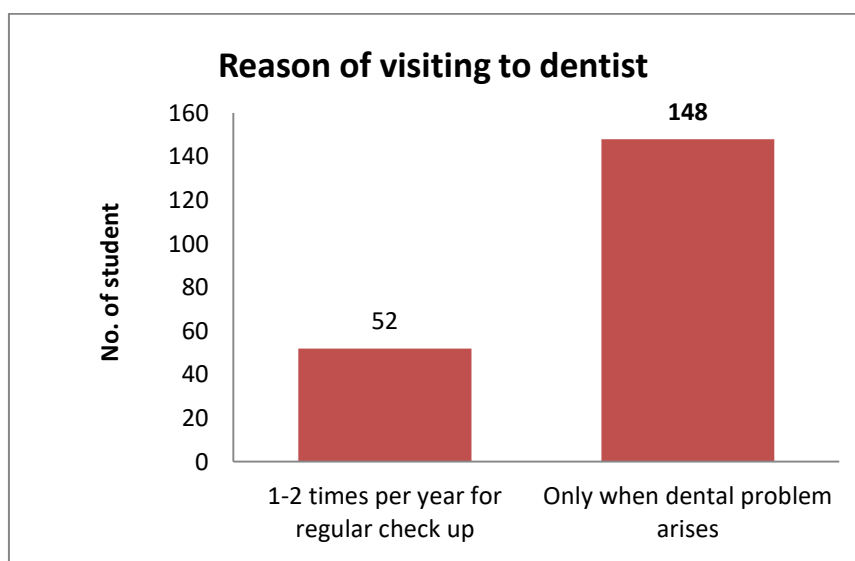


Figure: Reason of visiting to dentist among university students

According to this figure, among the students who visit dentist, 52 students visit for regular check up and 148 visit only when dental problem arises.

Chapter Five:

**DISCUSSION &
CONCLUSION**

DISCUSSION:

From the total data collection, it is estimated that most of the students' brushing frequency as bellow:

Twice a day > Once a day > More than twice a day.

All the students of pharmacy department also follow this. But between the pharmacy and others students, pharmacy students brush twice a day more than others students. Female students also brush twice a day more than male students as like the previous study.

The students who brush once a day, most of them brush in the morning before breakfast. Percentage of "brushing in morning before breakfast" is quite high for other students rather than pharmacy students and male students also follow this more than female students.

Among all the students who brush twice a day, follow the brushing time as bellow:

In the morning before breakfast and before going to bed > In the morning after breakfast and before going to bed > In the morning before breakfast and in the afternoon.

When brushing time is compared between pharmacy and other students, other students follow "In the morning before breakfast and before going to bed" and pharmacy students follow "In the morning after breakfast and before going to bed".

Duration of brushing among the university students as bellow:

1-2 minutes > more than 2 minutes > less than 1 minute

Femal students follow this more than the male students. Other students follow this more than the pharmacy students and pharmacy students brush more than 2 minutes more than the pharmacy students. All the students who brush for 1-2 minutes most of them brush twice a day.

All the university students use toothpaste as cleaning agent. Among the different type of toothpaste they use sensitive and normal type of toothpaste. Among the normal, sensitive, whitening and fluoride free toothpaste female students use varity than male students.

More than half of the university students brush before going to bed regularly and female students follow this more than the male students.

Most of the students don't suffer from bad breath. Those who suffer from bad breath male students is more than the female. Those who suffer from bad breath very less amount of students use mouthwash as a solution. The frequency of using mouthwash among the students is given below:

Sometimes > Daily > weekly, few times in a week > several times in a month.

More than half of the students don't have the habit of doing gargle everytime after eating. Male students have the habit of doing gargle more than the female.

The frequency of cleaning tongue among the university students is given below:

Daily > Sometimes > Weekly > Few times in a week > Several times in a month

More than half of the students clean their tongue daily and sometimes and pharmacy students have this habit more than the other students. Most of the male students clean their tongue "daily" than the female and most of the female students clean their tongue "sometimes" than male students. Most of the university students use toothbrush as a cleaning agent more than tongue scraper.

Some of the university students don't have the complete set of teeth. They have the loss of 1 to 2 teeth more.

More than half of the students don't have gum bleeding during tooth brushing.

Most of the students don't have the habit of using dental floss. Among the students who have the habit of using dental floss, the frequency of using this is given below:

Sometimes > Daily > Few times in a week > Weekly > Several times in a month

More than half of the students use toothpicks after eating meal and the frequency of using this is given below:

Sometimes > Few times in a week > Daily > Several times in a month > Weekly

The habit of smoking is quite less in male students and it is much low among the pharmacy students than other students. Frequency of smoking among the male students is given below:

1-5 times daily > Occasionally > 5-10 times daily > More than 10 times daily

The choice of sweet foods among the university students is given bellow:

Moderate > Very much > Less > I don't like them at all

The frequency of taking sweet food among the students is given bellow:

Occasionally > Several times in a month > Few times in a week > weekly > Daily

Among the students who like the sweet foods "very much", most of them take it daily. The students who take it daily have gum bleeding and also have the habit of brushing twice a day.

The choice of fast foods among the students is given below:

Very much > Moderate > Less > I don't like them at all

Those who like the fast foods "Very much" have the habit of brushing twice a day.

Male students like both sweet foods and fast foods "Very much" than female students. Other students like those foods "Very much" than pharmacy students.

More than half of the students know the theory of "Brushing should be done after breakfast" and very little amount of them follow this. The reason of not following the theory is given bellow:

Habituation > Laziness > Forgetfulness

More than half of the students don't visit doctor regularly. Those who visit doctor the reason is dental problem mainly.

CONCLUSION:

Finally it is understand that, All the good oral hygiene procedures like twice a day brushing, brushing before going to bed regularly, duration of brushing 1-2 minutes, using mouthwash, dental floss, brushing in after breakfast, avoid of smoking have been followed by most of the students. All the procedures have been followed by the pharmacy students more rather than other students and by female students more rather than male students. Male students also show some consciousness by avoiding smoking. Other students know all the procedure to make ones oral hygiene but they don't follow this because of habituation and laziness.

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