

Survey on dental caries among Bangladeshi people: A perspective of public concern scenario in government hospital



Daffodil
International
University

Project on

Survey on dental caries among Bangladeshi people: A perspective of public concern scenario in government hospital

A dissertation submitted to the Department of Pharmacy, Daffodil International University, slightly fulfils the needs for the Bachelor of Pharmacy degree (B. Pharm).

Submitted To

The Department of Pharmacy
Faculty of Allied Health Sciences
Daffodil International University

In the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy

Submitted By

Student ID: 191-29-1533
Batch: 21
Department of Pharmacy
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Daffodil International University

April, 2023

Survey on dental caries among Bangladeshi people: A perspective of public concern scenario in government hospital

APPROVAL

This project **Survey on dental caries among Bangladeshi people: A perspective of public concern scenario in government hospital**; submitted to the Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy and approved as to its style and contents.

Board of Examiners

Professor Dr. Muniruddin Ahmed

Head of the Department

Department of Pharmacy

Faculty of Allied Health Science

Daffodil International University



Internal Examiner 1

Internal Examiner 2

External Examine

CERTIFICATION

DISSERTATION ACCEPTANCE FORM DAFFODIL INTERNATIONAL UNIVERSITY, DEPARTMENT OF PHARMACY.

This is to certify that the results of investigation of this project works are original & have not been submitted before in this University. This entire project work has been accepted satisfactory requirements for Bachelor of Pharmacy.

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.....

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DECLARATION

I, with this, declare that I do this project under the supervision of Ms. Aklima Akter, Assistant Professor, Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, and reasonably meet the requirements of a Bachelor of Pharmacy (B. Pharm) degree. I declare that this project is entirely my creation. I further certify that the implementations in this project are unique and have never been submitted to any ~~any~~ program at this university.

Submitted By

Snigdha

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Acknowledgement

First and foremost, I would like to convey my heartfelt gratitude to the Almighty God for giving me the chance to study this subject, the capability to complete my project work, and finally the ability to write up the project work & results in order to fulfill the requirements for the Bachelor of Pharmacy degree. I would like to express my deepest appreciation and respect to my honorable supervisor, Aklima Akter , Assistant professor, Department of pharmacy, Daffodil International University.

I would also like to express my heartiest love to my friends who have supported me in my project work in the Laboratory and help to completing the project. I'd like to express my deepest greetings to Professor Dr. Muniruddin Ahamed, Professor and Head of the Pharmacy Department at Daffodil International University. I want to express my gratitude to everyone who has assisted me, directly or indirectly, in finishing my research, writing my dissertation, and bringing this project together.

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DEDICATION

DEDICATED TO

**ALL OF MY RESPECTED TEACHERS AND MY FAMILY MEMBERS
WHO HAVE ALWAYS SUPPORTED AND ENCOURGED ME**

Abstract

One's dental health should be one's first priority, therefore it's important to be aware of common problems, get the care one needs, and understand all of one's available options. The study's major objective was to increase people's knowledge of dental caries prevention by illuminating the commonalities among the most common dental problems. Patients with dental caries who visited the busiest public dental facility in Bangladesh were surveyed. The study uncovered the causes of dental caries in addition to the daily habits of patients. The participants in this cross-sectional study were all adults (56.6% male and 43.1% female) between the ages of 18 and 40. Most incidences of dental caries can be traced back to improper brushing techniques (21.3%) and improper brushing frequency (46.8%). The study discovered that patients had many things in common, including a similar awareness of the need to switch toothpaste brands, a similar frequency of doctor visits, a similar smoking status, a similar diet, a similar income, a similar genetic identification, and similar medication use. Taking care of one's teeth and gums is beneficial to a person's overall health and well-being. Despite the seriousness, dental health issues are often disregarded in Bangladesh. We recommend that these records be used for patient health advocacy and programme creation.

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CHAPTER -01

INTRODUCTION

1. Introduction

Dental caries is a huge dental public health problem all around the world, despite the fact that it is easily avoidable and cured. However, due to a lack of understanding and neglect in basic oral health care among the general public, the situation is deteriorating day by day all over the world, eventually affecting people's overall general and oral health. According to a WHO report dated March 15, 2022, "it is estimated that oral diseases affect nearly 3.5 billion people." According to the Global Burden of Disease 2019, the most frequent health condition is untreated dental caries (tooth decay) in permanent teeth." Furthermore, nearly 530 million children have first tooth caries (milk teeth)." Severe periodontal (gum) disease, which can lead to tooth loss, is extremely common, affecting over 10% of the world's population. Oral cancer (carcinoma of the lip or mouth) is one of the three most common malignancies in Asian and Pacific countries. Treatment for oral health problems is expensive and not always covered by national health insurance. In most high-income countries, dental treatment accounts for 5% of total health spending and 20% of out-of-pocket health expenditure. Most low- and middle-income countries lack the resources to prevent and treat oral health concerns. A bad diet heavy in sugar, cigarette use, and risky alcohol intake are all factors that contribute to oral disorders. Most oral health disorders are largely avoidable and treated in their early stages [1]. In Bangladesh, more than 20 million people lived close together in a crowded location, and more than 80% of them had at least one or more oral and dental problems. Many people have periodontitis, gingivitis, dental cavities, pulpitis, alveolar abscess, etc. [2]. Additionally, dental caries has been described as a dietary "carbohydrate-modified bacterial infectious disease" [3]. Furthermore, socioeconomic status and oral health have been identified as the primary causes of inequity [4]. Low socioeconomic position and immigrant background are significant social risk indicators for children because they have an indirect impact on oral hygiene practises and attitudes towards dental treatment (Wendt et al., 1994; Hjern et al., 2001; Källestal and Wall, 2002) [5]. Researchers Astrm & Jakobsen (1996) and Astrm (1998) have examined how parents serve as role models for their children as they enter adolescence. These research shown that even during adolescence, the family serves as an important mediator of socialisation and the development of health-related behaviours. According to Nicolau et al. (2007), who addressed a life-course approach, "the development of oral hygiene

habits may be sensitive to the socio-economic environment in which the people live during their childhood" [6]. Several studies have found a link between sugary beverages and childhood obesity [7]. Despite the fact that the etiological mechanisms, risk inhibitors, and risk indicators for dental caries are extensively described, the early life experiences that may cause caries are little understood. It indicates that acquiring good oral hygiene habits at an early age and maintaining them throughout pre-school appears to be critical for newborns and young children to achieve good dental health. However, little is known about how to maintain good dental health parameters over time, from childhood to adolescence, and how this affects the development of caries later in life [2]. The study's purpose was to determine how frequently patients at the selected dentistry college and hospital in Bangladesh had common mouth disorders.

1.1 Epidemiology

It is challenging to evaluate the frequency and distribution of dental caries globally because of the diverse diagnostic criteria employed in research [8–11], although over the past several decades, many wealthy countries have seen a drop in the incidence and severity of caries in permanent teeth. Furthermore, the condition advances more gradually as people age. The disorder most frequently affects both primary teeth and permanent teeth. The reduction in caries in permanent teeth has been greater on smooth and interproximal surfaces than on fissured or occlusal surfaces. The pits and fissures are predominantly impacted by coronal caries in children's permanent teeth [12,13]. Caries lesions first form on smooth surfaces in early infancy, even though they are normally less likely to develop caries. Primary tooth caries prevalence and severity may have stabilised or even slightly increased in some population groups. Even while the prevalence and severity of caries in permanent teeth have decreased over time in high-income countries, disparities still exist and many children and adults continue to have tooth decay. In the USA, childhood cavities are five times more common than asthma [12] in children. In the United States and other countries, dental caries is growing more common among elderly people as more people preserve more teeth throughout their lifespan [13]. Comparatively speaking, elderly persons may experience comparable or even higher rates of novo caries formation. Studies show that elderly persons who live in nursing homes are more likely than non-residents to suffer root caries. Other population groups at increased risk for dental caries include the underprivileged, those with low socioeconomic position or education

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levels, those who are members of racial or ethnic minorities, those who have developmental disabilities, those who have recently immigrated, those who have HIV/AIDS, and the old and frail. and those who demonstrate several risky lifestyle features [12, 14]. Dental caries' impact on people's overall health and happiness has not been sufficiently studied. The treatment for both the disease and its symptoms can be very painful and expensive. Dental cavities are a lifetime burden because once the tooth structure has been lost, they typically necessitate treatment and continuing maintenance. In developing nations, where dental caries is uncommon and tends to cluster on the occlusal surfaces of a few teeth, the costs of treatment are greater than what is available for essential public health services [15]. Because of this, 90% of these lesions go untreated [15]. There is evidence that, in countries like the US, Canada, and the UK, early childhood caries significantly affects children's quality of life. According to hospitalisation rates for preschoolers (aged 1-4 years) and primary schools (aged 5–12 years), dental caries is the fifth and sixth most common condition in Aboriginal children in Western Australia [16]. Due to the increase in tooth retention in populations in the USA and Europe, dental caries has become a problem for senior people. In a study conducted by Locker⁵⁴, 33% of Canadians over the age of 50 stated they had trouble speaking, eating, and socialising with others, and 17% indicated their tooth health was a serious source of worry. A third or so of the participants said they were dissatisfied with one or more elements of their dental health. Adult patients in France had a considerable dental care requirement. In a cohort study of New Zealanders, it was shown that adults who had grown up in lower socioeconomic homes had worse cardiovascular health as well as greater rates of periodontal disease and dental caries than adults who had grown up in middle- or higher-class families [17].

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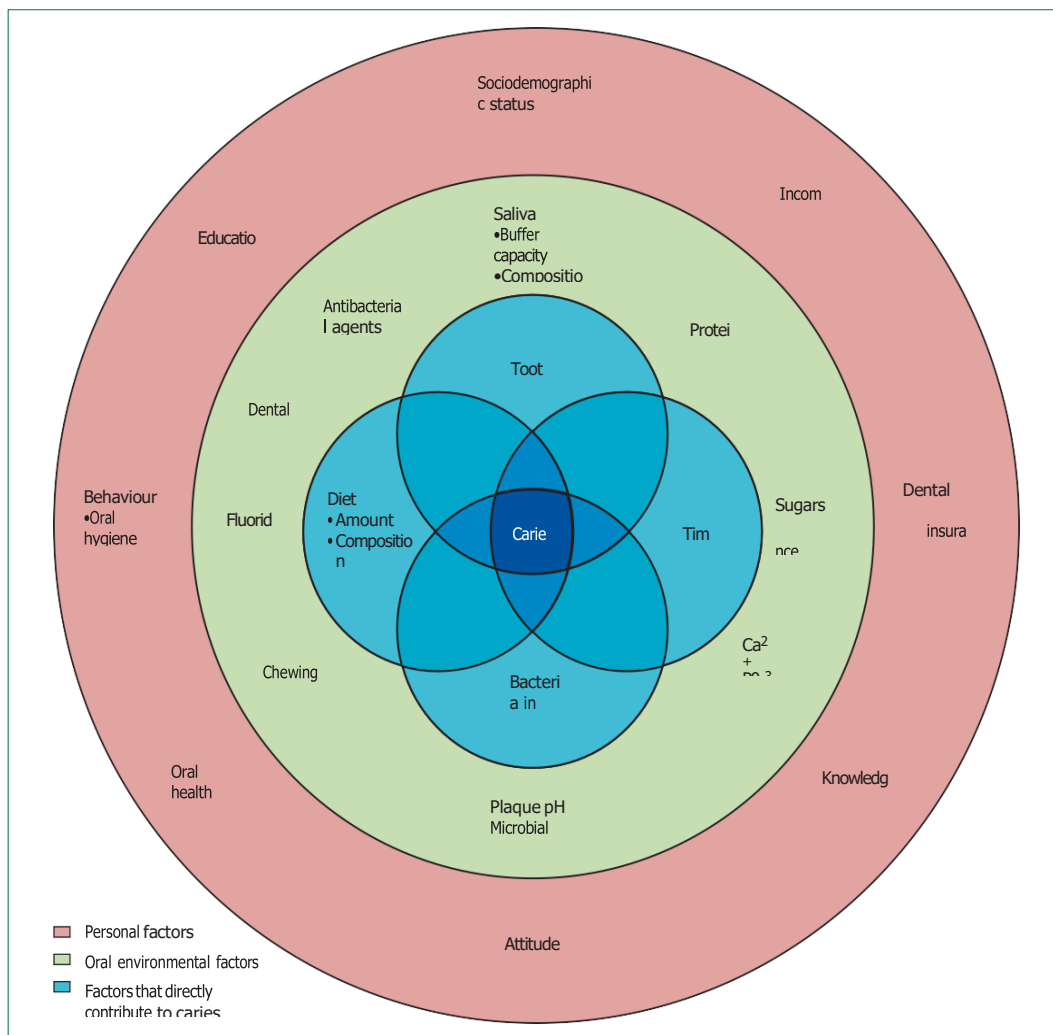


Figure 3: Illustration of the factors involved in caries development

Adapted from Fejerskov and Manji, 1990³¹ with permission of the authors and the publisher.

CHAPTER- 02

GOAL OF MY STUDY



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The goal of the study is:

- How many people are affected by dental caries.
- To find out why do people get dental caries.
- To find out what causes of dental caries.
- To find out the food habit of dental caries patients.
- To identify the mostly used medicine for dental caries.
- To differentiate between the affected dental caries and non-affected dental caries patient.



CHAPTER- 03

METHODOLOGY

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3.1. Data collection procedure

- I have started work for this survey in January 2023
- A survey created using a questionnaires' was being circulated on face to face individually.
- Some important data has been collected by reviewed number of related article paper from different website like google scholar, research gate and PubMed.

3.2. Sample size

- The test had 25 short-answer questions and took roughly four to five minutes to finish. The survey includes the following information: (1) residence (2) sociosegment statistics (age, gender, instructional level, occupation status and income); and (3) dental caries causes and impact, mostly used medicine and genetic history also.
- I have tried my best to collect all data from different profession people for gathering different types of information.
- The examination is led by a questionnaires oriented survey, around 100 populations was being responded for this assessments.

3.3. Data analysis strategy

Data analysis is the deliberate use of statistical and/or logical techniques for describing and displaying, condensing and summarizing, and assessing data. Microsoft Excel was used to analyses the data.

CHAPTER- 04

Literature Review

4.1 Literature Review

4.2 Chauncey HH, Glass RL, Alman JE. Dental caries. Caries research. 1989;23(3):200-5.

The study discussed in this paper is centred on dental epidemiology, tooth extraction, and tooth loss in dental caries. This paper's methodology consists of Thorough oral exams performed over a period of roughly 10 years on participants in the Veterans Administration Dental Longitudinal Study were evaluated to identify teeth extracted over this time and to ascertain the apparent reason for these extractions. The study sample consisted of 736 adult males lacking teeth, of whom 49% underwent 1,142 extractions. Caries was found to be the leading cause of tooth loss, with 33.3% of the extracted teeth being extracted due to caries. The other two primary causes of tooth loss were extractions performed in advance of a prosthesis (31.3%) and periodontal disease (18.7%). The most common reason for tooth extraction in this group of US-born male adults was dental caries. The second-most common reason entailed the removal of both good teeth and teeth with carious diseases that could have been treated in order to prepare teeth for a prosthesis. The fact that periodontal disease accounted for just 18.7% of the extractions in this cohort shows that it was not the primary cause of tooth loss. The results of this study demonstrate that dental caries, which is more common in adults than periodontal disease, is a substantial problem and leads to increased tooth loss. It's evident that these people's tooth loss could have been prevented to a large extent. The same emphasis on caries prevention for the adult population as it is for the young should be made [18].

4.3 van Palenstein Helderma WH, Joarder K, Begum A. Prevalence and severity of periodontal diseases and dental caries in Bangladesh.

The research results on dental caries and periodontal disease from Bangladesh are reviewed in this essay. Between the ages of 12 and 19 (82–95%) and 35–44 (98–100%), practically everyone acquired calculus skills. The various studies found that between the ages of 35 and 44, a wide range of prevalences (14-65%) of patients had extensive periodontal pockets. A median estimate of the proportion of patients with deep periodontal pockets (26%), which is one of the 20% of countries worldwide, indicates that the population's periodontal health is among the poorest. To assess the caries experience, the age cohort median DMFT values from numerous studies were computed. DMFTs ranged from 1.7 for 12-year-olds to 1.6 for 15–19-year-olds, 1.0 for 20–34-year-olds, and 1.4 for 35–44-year-olds. These DMFT-values are regarded as upper limit values

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because they were primarily acquired from urban and peri-urban populations. According to the age effects discovered, caries activity in young (urban) people may have increased prior to 1980. Over the past 15 years, there have not been any cohort effects that would indicate secular changes in the experience of caries. Therefore, it can be concluded that caries activity in Bangladesh over the past 15 years has been consistent [19].

4.4 Pasha K, Karim M, Rahman M. Exploring the practice of common oral diseases among the patients visiting in the selected dental college and hospital in Bangladesh. Life Res. 2022;5(4):25.

The work in this paper focuses on dental caries, intraoral periapical cone beam computed tomography, damaged crowns, broken roots, and decayed missingfilled teeth. An descriptive type cross-sectional study was conducted among the patients who visited the selected dental college and hospital in Bangladesh between October and December 2019 to look at the prevalence of common oral illnesses. About 100 patients were interviewed using a semi-structured questionnaire, and they underwent written and oral exams as well as face-to-face interviews. A careful random-sampling process was used to choose the study's population. Only 2% of them are between the ages of 71 and 80, while up to 20% of them are in the 21 to 30 age bracket. 44% of them were women and 56% were men. Students make up 26% of the population, while other individuals, mostly day labourers, make up the remaining 4%. In 72% of cases, decaying teeth were still present; in 31% of cases, teeth were absent; and in 24% of cases, filled teeth were involved. Compared to the majority of 71% who only do so, only 29% clean their teeth twice daily. Maximum 95% of individuals should brush their teeth in the morning, compared to 30% who should do so at night. Additionally, just 4% of people use meswak to clean their teeth, whereas at most 68% do it with toothpaste and brushes. A total of 4% of instances had no debris, 51% had less than 1/3 of a tooth covered in debris, 32% had between 1/3 and 2/3 of a tooth covered in debris, and 13% had more than 2/3 of a tooth covered in debris. Once more, calculus was present on 30% of the teeth, with 52% of those having less than 1/3 of a tooth's calculus, 16% having between 1/3 and 2/3 of a tooth's calculus, and 2% having more than 2/3 of a tooth's calculus. Only 25% of the mild, 22% of the moderate, 6% of the severe, and 47% of the mild cases exhibited inflammation. In addition, for treatment-related reasons, 20.69% was advised for scaling, 19.66% for filling, 16.90% for root canal therapy, 17.59% for extraction, 17.24% for prosthodontic

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treatment, 1.03% for orthodontic treatment, 2.07% for pulpotomy, 2.41% for pulpectomy, and 2.41% for minor surgery. Ninety-five percent of respondents indicated they brush their teeth once a day, however 72% of respondents, mostly students, reported having rotten teeth. This could be a result of irregular brushing. In addition, 20.69% of them require scaling, which is a very worrying situation and can be the result of inadequate or subpar brushing maintenance. In terms of oral health behaviours, the aforementioned situation might, in some ways, be representative of the younger population in our country. Our lawmakers created a preventative oral health strategy for the whole population, particularly school-age teenagers, in order to respond to this pressing need [20].

CHAPTER- 05

RESULT & DISSCUSSION

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5.1 Results and discussion

5.2 Area of residence of patients

Area	No. of patients(%)
Rural	16.7 %
Urban	53.9%
Small city	29.4%
Total	100%

Table-1: Area of residence of patients

From the study, it was seen that among 100 patients, 16%% patients are living in rural area,53.9% patients living in urban area and 29.4% patients living in small city as presented at table 1.

5.3 Age distribution

Age	No. of patients(%)
18-22	3.6%
22-26	5.8%
27-32	6.03%
33-40	39.6%
40+	44.97%

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Total	100%
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Table-2: Age distribution

From the study, it was seen that among 100 patients, 3.6% in the age range 18-22, 50.8% in the age range 22-26, 6.03% in the age range 27-32, 39.6% in the age range 33-40 and 44.97% in the age range 40+ as presented at table 2.

5.4 Gender Distribution

Gender	No. of patients(%)
Male	56.9%
Female	43.1%
Total	100%

Table-3: Gender Distribution

5.5 Monthly Family Income

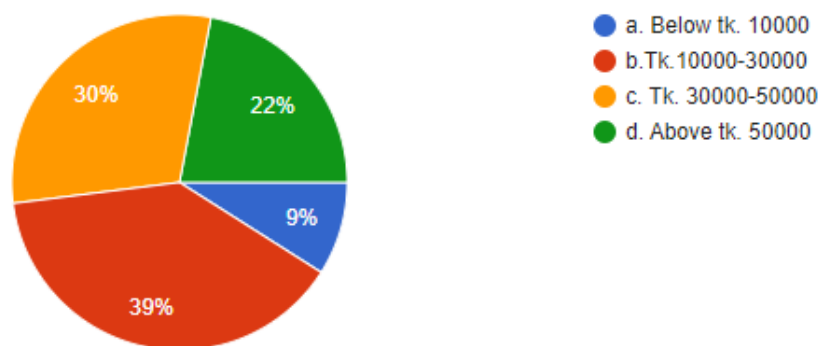


Figure 2: Graphical representation of patients' monthly family income.

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From the study, it was seen that among 100 patients, their family incomes were 9% below tk. 10000, 39% within the range tk. 10000-30000, 30% within the range tk. 30000-50000 and 22% within the range above tk. 50000 as presented at Figure 2.

5.6 Responsible for the disease

Causes	No. of patients(%)
Improper brushing	21.3%
Food habit	25.5%
Brushing once a day	46.8%
Others	6.4%
Total	100%

Table-4: Responsible for the diseases

From the study, it was seen that 21.3% of diseases caused due to improper brushing, 25.5% for food habit, 46.8% for brushing once a day and others 6.4% as presented at Table 4.

5.7 Toothpastes used

From the study, it was seen that among 100 patients, 50% of patients used Pepsodent, 30% Colgate, 15% Closeup, 4% Sensodyne, 1% herbal as presented at Figure 3.

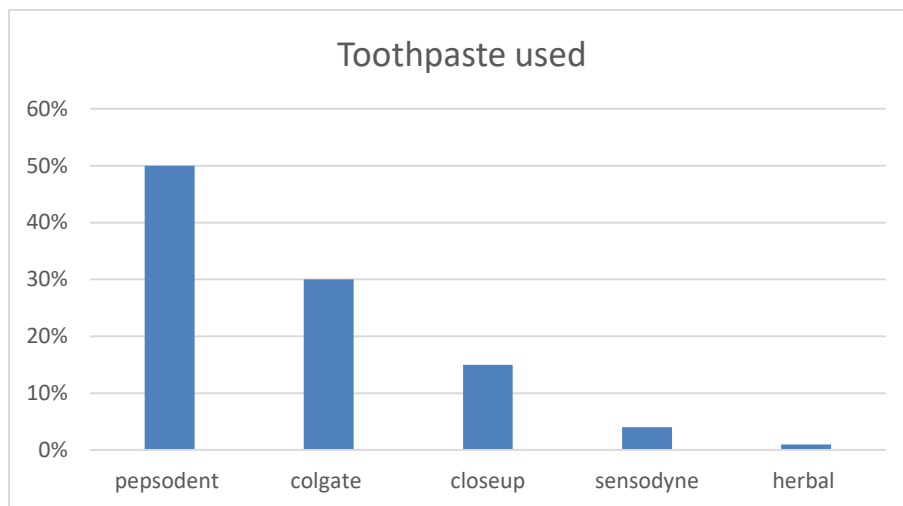


Figure 3: Toothpaste brand used

5.8 Toothpaste brand changed by the patients

From the study, it was seen that among 100 patients, 17.8% of patients changed their toothpaste brand after every month, 17.8% after every two months, 18.8% after every three months, 25.7% used same brand all the time and 19.8% didn't remember when they changed their toothpaste brand as presented at Figure 4.

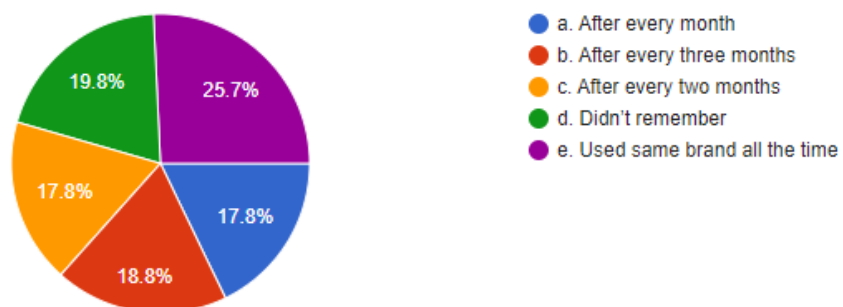


Figure 4: Toothpaste brand changed by the patients

5.9 Brushing habit

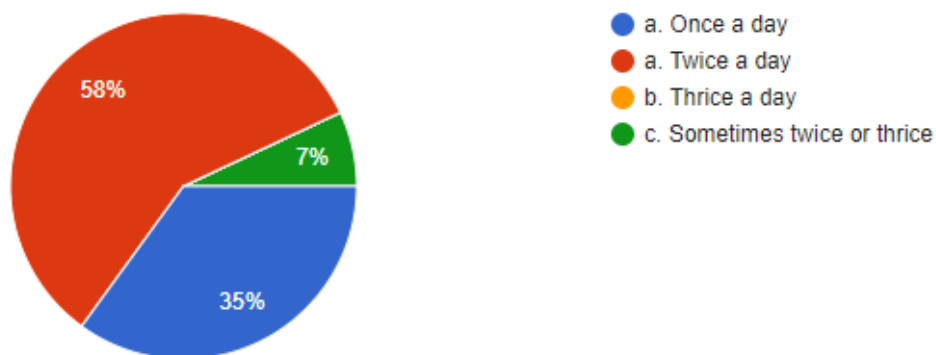


Figure 5: Brushing habit

From the study, it was seen that among 100 patients, 35% brushed once a day and 58% brushed twice a day and 7% brushed sometimes twice or thrice a day as presented at Figure 5.

5.10 Last visit to a dentist

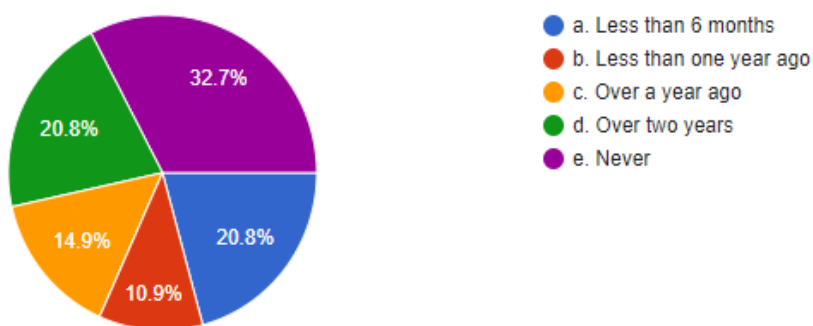


Figure 6: Last visit to a dentist

From the study, it was seen that among 100 patients, 20.8% of them visited dentist less than 6 months ago, 10.9% less than one year ago, 14.9% over a year ago, 20.8 over two years ago and 32.7% never visited a dentist as presented at Figure 6.

5.11 Reasons for visiting doctor

From the study, it was seen that among 100 patients, 14.9% of them visited for regular checkup, 13.9% for cleaning, 15.8% for dentures, 28.7% for other problems and 26.7% for never visit as presented at Figure 7.

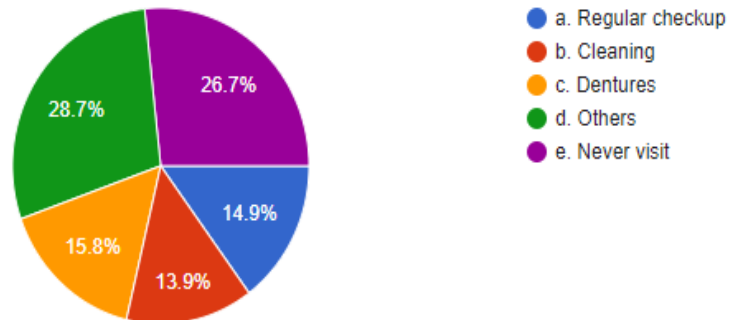


Figure 7: Reasons for visiting doctor

5.12 Smoking parameters

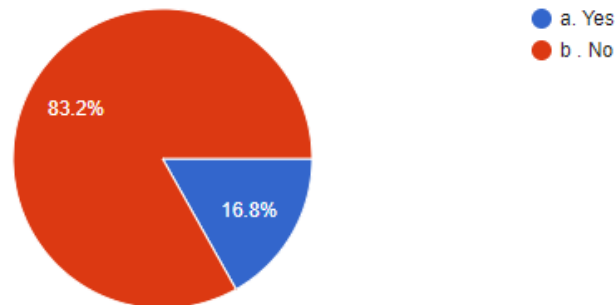


Figure 8: smoking diagram

From the study, it was seen that among 100 patients, 16.8% of them are smoking patients, and 83.2% for never smoked as presented at Figure 8.

5.13 Bad smell from mouth

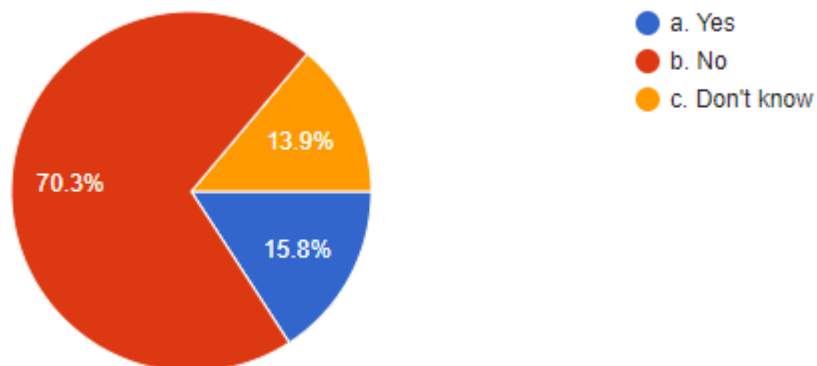


Figure 9: Bad smell from mouth by the patients

From the study, it was seen that among 100 patients, 15.8% of them have bad smell from mouth produced, 70.3% for no smell and 13.9% don't know as presented at Figure 9.

5.14 Most eaten food

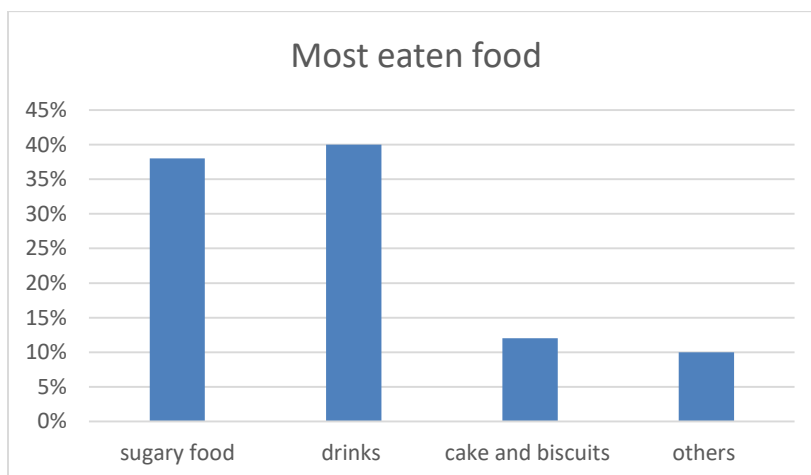


Figure 10: food

From the study, it was seen that among 100 patients, 38% of them are eaten sugary food, 40% of them are eaten drinks, 12% are cake and biscuits and 10% are others as presented at Figure 10.

5.15 The types of medicine they have took

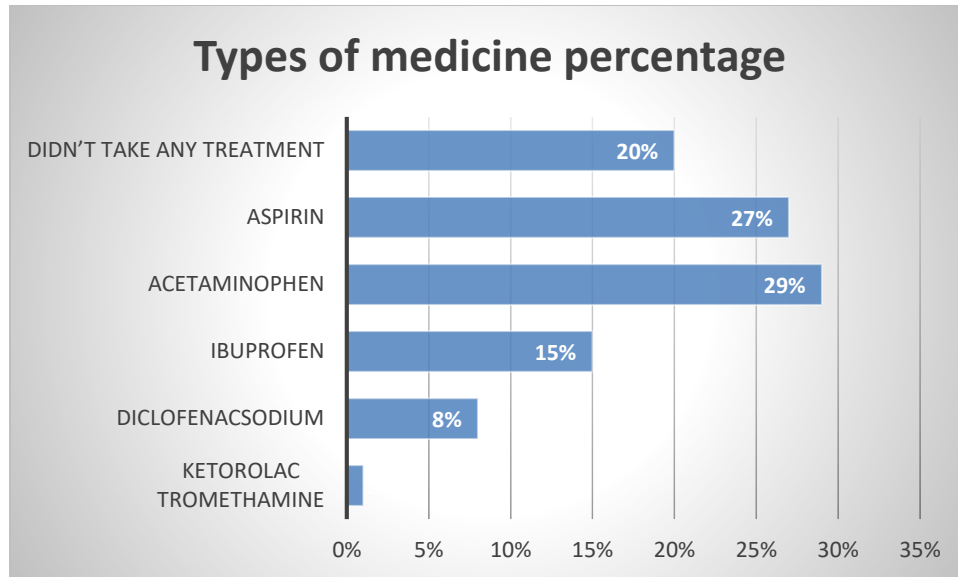


Figure 11: medicine percentage

From the study, it was seen that among 100 patients, 27% of them are take aspirin, 29% of them are take acetaminophen, 15% are ibuprofen, 8% are diclofenac sodium, 1% ketorolac tromethamine and 20% are didn't take any treatment or medicine as presented at Figure 11.

5.16 Genetic in nature

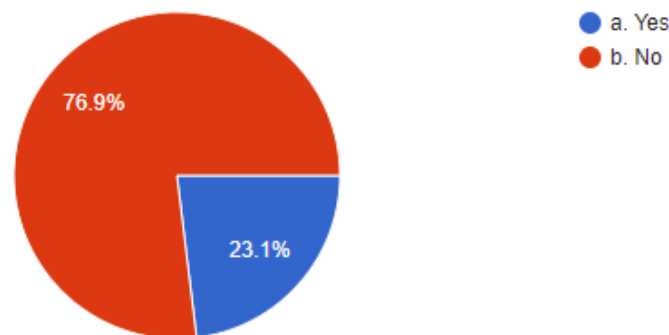


Figure 12: genetic in nature

From the study, it was seen that among 100 patients, 76.9% of them are yes and 23.1% of them are no as presented at Figure 12.

5.17 Discussion

This study aimed to assess the patients' dental knowledge and dental hygiene practises. When planning the cross-sectional study, accessibility of the target group was taken into consideration. The study's findings show that, of the 100 patients, 16.7% live in rural areas, 53.9% live in urban areas, and 29.4% live in small cities (Table 1). 3.0% of patients were between the ages of 18 and 22; 5.8% were between the ages of 22 and 26; 6.03% were between the ages of 27 and 32; 39.6% were between the ages of 33 and 40; and 44.9% were above the age of 40 (Table 2). In our observation of 100 patients, 56.9% of the people we saw were men and 43.1% were women (Table 3). Several inquiries regarding the participants' knowledge of oral health were made, including inquiries about dietary practises, dental cleanliness, and how frequently people went to the dentist. The majority of patients (46.8%) believed that cleaning their teeth once a day had led to the manifestation, whereas 21.3% said that ineffective brushing and ignorance of the need of maintaining healthy teeth were to blame (Table 4). The results showed that 32.7% of the patients had never visited a dentist before, 20.8% had done so within the previous six months, 10.9% had done so within the previous year, 14.9% had done so more than a year ago, and 20.8% had done so more than two years ago (Figure 6). When asked about their oral hygiene regimen, 35% of participants said they brushed their teeth once per day, while 58% said they did it twice (Figure 5). The results of the study showed that 15.8% of the participants claimed they would only visit a dentist if they wore dentures. 14.9% of the patients went for routine examinations, 13.9% for cleaning, and 28.7% had other reasons (Figure 7). The majority of patients (9%), those with monthly family incomes below 10,000, 10000-30,000 those with monthly income (39%), those between 30,000 and 50,000 (30%), and those with monthly family incomes beyond 50,000 (22%) were present (Figure 2). Figure 3 shows that individuals used Pepsodent, Colgate, Closeup, Sensodyne, and herbal products to clean their teeth to various degrees. Their propensity to changing toothpaste brands may have had an effect on their dental health as well. The study found that 17.8% of patients switched toothpaste brands every month, 17.8% every two months, 18.8% every three months, 25.7% of them always used the same brand, and 19.8% couldn't remember switching brands (Figure 4). Figure 8 from the data reveals that 16.8% of smokers say they love their cigarettes. Figure 11 reveals that 27% of respondents take aspirin, 29% take acetaminophen, 15% take ibuprofen, 8% take diclofenac sodium, and 20% don't take any drugs at all. The results of the study showed that 23.1% of participants believed their ailment was genetic in origin,

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whereas 76.9% believed it was not genetic (figure 12). The results showed that male and female behaviours in all examined factors had small differences. This study looked closely at the dental caries practises, knowledge, and attitudes of the population in Bangladesh. The general public lacks true awareness about dental health. The study's findings suggested that Bangladeshis need to improve their oral hygiene routines and level of knowledge.

CHAPTER- 06

CONCLUSION

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6. Conclusion

Overall, adults over the age of 30 experience tooth decay more frequently than other age groups, which may be a result of insufficient brushing (only 35% of respondents claim to brush once each day). The aforementioned problem might therefore be a sign of our country's younger population's bad oral health habits in various aspects. It is now essential to give maintaining good dental health a high priority in order to further enhance the population's overall health and wellbeing. Therefore, caries prevention is vital for promoting public health. Good oral hygiene practises, the use of fluoride toothpaste, and daily flossing are encouraged. Snacking is also discouraged, and milk, green vegetables, and reducing chewing gum use are all advised. Increasing public awareness of the significance of dental checkups may aid in early detection. Therefore, our politicians must quickly establish a preventative oral health approach for the general population, which is mostly made up of students who are enrolled in school.

CHAPTER-7

REFERENCE

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CHAPTER-8

Annexure

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8. Annexure

1. What area of residence do you live in?

- a. Rural
- b. Urban
- c. Small city.

2. Age ?

- a. 18-22
- b. 22-26
- c. 27-32
- d. 33-40
- e. 40+

3. Which gender are you?

- a. Male
 - b. Female
 - c. Intersex
-

4. How much money does your family make each month?

- a. Below tk. 10000
- b. Tk. 10000-30000
- c. Tk. 30000-50000
- d. Above tk. 50000

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5. Do you use a certain brand of toothpaste?
which one-

	Column 1
a. Pepsodent	<input type="checkbox"/>
b. Colgate	<input type="checkbox"/>
d. Sensodyne	<input type="checkbox"/>
e. Herbal	<input type="checkbox"/>
f. Closeup	<input type="checkbox"/>
g. Others	<input type="checkbox"/>

6. Do you switch brands of toothpaste frequently?

a. Yes

b. No

7. How often do you change toothpaste?

a. After every month

b. After every three months

c. After every two months

d. Didn't remember

e. Used same brand all the time

8. Do you clean your teeth everyday ?

a. Yes

b. No

9. If yes, How many times do you clean your teeth per day?

a. Once a day

a. Twice a day

b. Thrice a day

c. Sometimes twice or thrice

10. Has dental caries ever affected you?

a. Yes

b. No

11. If yes, What do you think which is responsible for your disease?

a. Improper brushing

b. Food habit

c. Brushing once a day

d. Never affected

e. Others

12. Do you use dental floss?

a. Yes

b. No

13. If yes, How often do you flossing?

a. Once a day

b. 2-3 times in a week

c. Once in a month

d. Never did flossing

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14. When was the last time you visited the dentist?

- a. Less than 6 months
- b. Less than one year ago
- c. Over a year ago
- d. Over two years
- e. Never

15. What is the reason for your doctor visit?

- a. Regular checkup
- b. Cleaning
- c. Dentures
- d. Others
- e. Never visit

16. Do you ever require tooth scaling?

- a. Yes
- b. No

17. Do you smoke?

- a. Yes
- b. No

18. Do you have a bad smell from your mouth?

- a. Yes
- b. No
- c. Don't know

19. Do you ever require tooth filling

- a. Yes
- b. No
- c. Don't know

20. Which types of food do you eat most?

	Column 1
a. Sugary food	<input type="checkbox"/>
b. Drinks	<input type="checkbox"/>
c. Cake and biscuits	<input type="checkbox"/>
d. Others	<input type="checkbox"/>

21. Have you ever taken treatment for dental problems?

- a. Yes
- b. No

22. If yes, What types of medicine did you take??

	Column 1
a. Ketorolac Tromethamine	<input type="checkbox"/>
b. Diclofenac sodium	<input type="checkbox"/>
c. Ibuprofen	<input type="checkbox"/>
d. Acetaminophen	<input type="checkbox"/>
e. Aspirin	<input type="checkbox"/>
f. Didn't take any treatment	<input type="checkbox"/>

23. Do you believe that the development of an anti-caries vaccine is possible?

- a. Yes
- b. No
- c. Don't know

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24. Does anyone in your family suffer from dental caries?

a. Yes

b. No

25. Do you believe the issues are genetic in nature?

a. Yes

b. No
