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Review Article

Pattern of Oro-Dental Problems and Knowledge Regarding Dental Care Practices among the Patients Attending Out Patient Department (OPD) of a Selected Dental College Hospital in Dhaka City

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Abstract

Like other developing countries dental problems are a public health problem in Bangladesh. There are very few studies which may reflect the actual situation of Oro dental problem including definite guidelines for the prevention of dental disease in Bangladesh. Dental diseases such as dental caries, gingivitis, periodontitis, alveolar abscess, attrition, mobility, etc. are chronic progressive diseases and most common problems in our country.

To identify the common Oro-dental problems and to level of knowledge regarding dental care practices among the respondents. This descriptive type of cross-sectional study carried out at outpatient department of Sapporo dental College and hospital, Dhaka. The period of study will be Six month 1st January to 30th June of 2020.The entire patient with Oro dental problems who were coming to the outpatient department of Sapporo Dental College and Hospital, Dhaka for treatment. The Total number of patients attending at the out patients department daily is approximately about 60 - 90. The sample size worked out to be 125 by using the formula for sample size estimation $n = \frac{z^2(p \times q)}{d^2}$. The data were collected by the researcher himself through direct interview and by clinical examination of the respondent using a structured questionnaire and a check list after taking verbal consent. After collection, data were checked, verified, edited and entered into computer and consistency was checked. Data was analyzed by using Statistical package for Social Science (SPSS) version 11.0 software program according to key variables, statistical significance was done according to the objectives of the study. A cross sectional study by M R et a1 in Charghat upzilla of Rajshahi in a primary school showed that caries of deciduous teeth is more than that of permanent teeth. The overall percentage of carious lesion is 45.05%. Male and female were affected 56 04% and 34 06°/o respectively Caries affected the teeth of children below 10 years was 54.05% and above 10 years was 31°/o i.e. the caries of deciduous teeth is more than that of permanent teeth.

This study may also be helpful to suggest guidelines for the policy makers to include dental health education in educational institutions and explore new ideas for further research and preventive measure against the Oro dental diseases. Thus, generated information from this study will be of immune benefit for the health policy planners/authorities of the country to implement necessary intervention to prevent and/or control common dental problems in the country.

Keywords: *Oro-Dental Problems; Dental Care Practices; Out Patient Department (OPD)*

Introduction

Dental problems arc a public health problem in Bangladesh. Therefore, the pattern of these dental diseases need to be identified by valid studies to assess the actual distribution of the problem in the community. Because of lack of awareness of the people the dental diseases are increasing day by day. So, it is the crying need of the country to have adequate information on pattern of dental diseases and to take necessary prevention programme to fight against the dental diseases. Since both the initiation and the continuation of our major problems in dental practice, dental diseases are in part nutrient and food in origin, it is logical and necessary that our management should be regarded to deal with these causes. Research has proved that partial inhibition or arrest of this disease can be attained directly with food factor. We can negate the disease effect by either a decrease in or restriction of the use of deleterious food factors or by promotion of the use of beneficial food with regular maintenance of oral hygiene [1,2].

Today's concepts of the practice of dentistry are beginning to change. For the last 30 or more years our primary task has been restorating, fabricating and rehabilitating teeth and mouths. In spite of our laudable contribution, the need keeps outpacing the fulfillment. Because of the increase in population, and the corresponding rise in dental needs, we appreciate more and more each day that we are fighting a losing battle by mere emphasis on therapy; this is obvious neither adequate nor progressive. Prevention not therapy is todays challenge and hopefully tomorrow's achievement' [3,4].

There are multiple factors which are responsible for the causation of Dental diseases, but dietary factors specially consumption of fermentable carbohydrate plays a major role for the causation of dental diseases. Other factors like oral microbial enzymes, physical and chemical structure of teeth, poor oral hygiene, calcium and vitamin D deficiency in the diet, low fluoride content in drinking' water are responsible for dental disease formation. Oro-dental hygiene is the most common accompaniment of dental diseases with other associated factors.

WHO suggested three things for better oral health, namely:

1. Clean your mouth preferably after each meal.
2. Use fluoride in drinking water or tooth paste and
3. Eat less sugar [5,6].

Though dental caries is chronic progressive disease and not a life endangering disease, but it can sometimes be quite troublesome and is one of the most common problems in our country. It can directly or indirectly be responsible for pain, infection, facial disfigurement, chewing and speech impairment as well as malnutrition. Caries in infants and young children is one of the most frustrating and difficult problems, not only for the parents but also for the society Too many of us have experienced tooth ache that ends up in a sleepless night, time loss from work or school, college and university; ultimately decrease enjoyment in eating, and socializing [6,7].

In developing countries like Bangladesh there is no institution based dental service and comprehensive health education from which the school or college students can achieve knowledge to practice correct process of tooth brushing and proper timing with appropriate cleaning materials. The highest prevalence of dental disease among the school children and young adults is probably due to inadequate knowledge, ignorance about practice of personal hygiene, aetiology, prevention and complication of the disease. A set of sound healthy teeth is a valuable asset, it contributes to good personal appearance in addition to be an efficient chewing apparatus. The slogan of the 'world health day of 1994 was "Oral health for healthy life".

There is a strong association between dental diseases and practice of oral hygiene. Those who maintain their oral hygiene, they develop least dental diseases. Once tooth is decayed eventually terminates to loss. Dental diseases are curable but preventable diseases. Positive preventive measures should be undertaken to reduce and control the diseases. The prevention of oro-dental diseases can be ensured by regular cleaning of the mouth and teeth. This tasks essentially an individual action and responsibility. But in case of child, it would not be possible to do this task alone and would need support from their parents and superiors.

So, the ultimate target of the researcher is to identify the common oro-dental problems and to assess the level of knowledge regarding dental care practices among the respondents. Generated information from this Study may be of immense benefit for the policy planners of the count to implement necessary intervention to fight against the common oro-dental problems of the county [8,9].

Justification of the Study

Like other developing countries dental problems are a public health problem in Bangladesh. There are very few studies which may reflect the actual situation of oro dental problem including definite guidelines for the prevention of dental disease in Bangladesh. Dental diseases such as dental caries, gingivitis, periodontitis, alveolar abscess, attrition, mobility, etc. are chronic progressive diseases and most common problems in our country. Among the common dental diseases dental caries is not a Life endangering disease but sometime may become quite troublesome. Once tooth is decayed eventually terminates to loss, because priori is not given for the prevention of this diseases in respect of other health care problems. Oral hygiene awareness and regular maintenance of oral hygiene has a great role in remaining one free from common oro-dental problems. This oral hygiene maintenance or oral hygiene practice should be habituated from our early life. But still now some parents thinks that there is no need to take care of oral hygiene during primary dentition because these deciduous teeth of the children are temporary and will fall soon but various complication may occur due to bad oral hygiene. Such as dental caries, gingivitis inflammation of the local organ likes tonsil pharynx etc.

An adequate practice of oral hygiene is essential for health and well being as well as prevention of dental diseases. Present study will provide necessary information about the extent and severity of these diseases, which may help people in changing their views and create awareness about undertaking adequate prophylactic and preventive measure for their children. Like other developing countries, dental decay problem and dental care facilities are not sufficient. So, oro-dental diseases have turn into a bigger medical and social problem, specially the prevalence of caries among the young children and young adult.

According to WHO technical reports [10] 80% of young children and almost entire adult population of developing countries are suffering from chronic gingivitis. This gingivitis, if untreated turn to periodontitis as sequel which is also common in young adults. As dental diseases are preventable diseases, they can easily be prevented by oral hygiene practice. As majorities of our people suffer from dental caries in their early childhood, preventive measures are to be taken in early life. Before taking measure one should know causes of the diseases. The author has conducted the study among the patients in out patient department of sapporo Dental College and Hospital, Dhaka to know their knowledge, and attitude about causes and preventive measures of dental diseases. As the patients who are coming to the out patient department of a hospital are the representative of common population of a country and the dental college hospital is the proper institution for providing accurate and sufficient dental treatment, so the researcher has chosen this study place and population. A few study have been done previously regarding the dental problem among primary school children. Some of studies showed the higher prevalence of among the children But the effect of oral hygiene practice dental diseases have not been emphasized. Identifying relationship and improving the oral hygiene practice is thought to be an important factor for preventing dental diseases in Bangladesh. It is thought that dental diseases of the people can be reduced by educating the general people to maintain proper oral hygiene If the children are motivated and educated properly to maintain proper oral hygiene, they can also be saved from the sufferings of dental diseases.

So, the researcher thinks the importance of good oral hygiene practice should be highlighted to the common people as well as the health personnel and the community as a whole in the dental diseases prevention programs. It is expected that the result of this study may identify the role of oral hygiene in the causation of dental diseases which may help the community to develop awareness about oral hygiene and dental practices among themselves and their children which ultimately will prevent dental diseases and its further complications.

This study may also be helpful to suggest guidelines for the policy makers to include dental health education in educational institutions and explore new ideas for further research and preventive measure against the oro-dentat diseases. Thus, generated information from

this study will be of immune benefit for the health policy planners/authorities of the country to implement necessary intervention to prevent and/or control common dental problems in the country.

Research Questions

1. What are the common oro-dental problems of the patients attending out patient department of a selected Dental College Hospital in Dhaka City?
2. What is the level of knowledge regarding Dental Care Practices of the respondents?

Objective of the Study

General objectives: To identify the common oro-dental problems and to level of knowledge regarding dental care practices among the respondents.

Specific Objectives

3. To find out the proportions of different oro-dental problems among the respondents.
4. To assess the level of the knowledge of the respondents regarding oral hygiene practices.
5. To find out socio-economic and demographic status of the respondents.
6. To relate the educational level, economic status and occupation of parents with oro-dental diseases.
7. To find out the different food habits of the respondents.

Key variables

The following variables were included in this study:

1. Age of the respondents.
2. Sex of the respondents.
3. Educational status of the respondents.
4. Educational qualification of parents.
5. Occupation of the parents.
6. Monthly income of the family.
7. Regularity in cleaning teeth.
8. Frequency of cleaning teeth.
9. Duration for cleaning teeth.
10. Methods used for cleaning teeth.
11. Materials and Instruments used for cleaning teeth.
12. Duration of use of a single tooth brush.
13. Time schedule for cleaning teeth.
14. Types of food taken in lunch and dinner.
15. Types of food taken as snacks in between two main meals.
16. Habit of chewing areca nut lime.
17. Habit of taking tobacco and spices.
18. Consumption of sweets.

19. Pat of the common oro-dental problems.
20. Knowledge of the respondents about dental diseases.
21. Frequency of visit to dental surgeon.
22. Condition of the teeth, gums, tongue, tonsils and oral mucous.

Operational definitions

Knowledge

In this study, knowledge means idea of the respondents about the following responsible for dental diseases.

23. If the mouth and teeth are not cleaned regularly.
24. To take excessive sweets.
25. Accumulation of residual food in the oro-dental cavity.

Category of knowledge

Category of knowledge regarding factors related to dental diseases:

- **Good:** If the respondent can tell all the above mentioned factors.
- **Average:** If the respondent can tell any two of the above mentioned factors.
- **Poor**: If the respondent can tell any one of the above mentioned factors.

Practice

This refers to accepted frequency of an act or quantity of an expected action.

Oral hygiene

The status of oral hygiene was determined by questionnaire and clinical examination. Good oral hygiene was meant as prophylactic procedures to maintain oral health and prevent oral disease by regular and proper brushing teeth with appropriate dentifrices, at least 2 times i.e. after breakfast and before going to bed regular practice of mouth rinsing after taking food. Finding healthy or unhealthy oral cavity as revealed by standard clinical examination procedure.

Dental caries

Finding tooth decay, missing and filled teeth on clinical examination.

Gingivitis

Inflammation of gingiva which become red and slightly swollen with oedema. Plaque deposited along the gingival margin is readily detectable.

Periodontitis

Periodontal inflammatory status in terms of four clinical signs.

1. Bleeding from gum after probing.
2. Presence of calculus.
3. Presence of shallow periodontal pocket (4 and 5 mm).
4. Presence of deep periodontal pocket (More than 5 mm).

Attrition

Mechanical loss of the crown of teeth and thereby irregular and haphazard appearance of the teeth resulting decreased size of the teeth.

Alveolar abscess

An acute or chronic infection of periapical region caused by necrotic pulp with the symptoms of inflammation, swelling, accumulation of pus in the apex of teeth and fever with pain.

Mobility

Anterior and posterior movement of the teeth from its alignment up to some extent while it is hold by two fingers and forced to move.

Dental plaque

Presence, of white slough around the gingival margin of tooth on examination.

Mouth rinsing

Mouth wash or cleaning the teeth and mouth cavity after taking food or sweets were considered as mouth rinsing, which removes the food debris and prevents acid formation.

Food habits

Food habits include the main type of food as well as the frequency of intake wh was taken as in terms of main meals and in between meals.

Proper technique for brushing teeth

Proper technique of brushing teeth was defined as brushing upper teeth from above down wards and lower teeth from below upwards.

Occupation of parents

Daily workers, agriculture, service, business, house wife etc. have been taken as occupation as stated by respondents.

Monthly income of the family

Monthly total sources of income of the family have been taken as monthly income as stated by the respondents.

Prevalence

The number of cases of den diseases among the sample which have been taken from the patients attending out patient department of Sapporo Dental College and Hospital, Dhaka during study period.

Age

Age of the respondents as stated by them

Limitation of the Study

1. The study was carried out in sapporo Dental College and Hospital, Dhaka. As study was conducted in a hospital it may not reveal the true picture of the country.
2. The sample size was not adequate to give the 'actual situation and frequencies of different dental diseases.

3. Some of the respondents thought that this type of interview would not bring any benefit for them, so they were reluctant in answering during the interview. So, their actual Level of knowledge; feelings and practices of the respondent might not be truly expressed in their information. This probably constitutes a major limitation of the study.
4. In Bangladesh a few studies related to all the common dental diseases were carried out which are significant. So limited number of literatures were available in this regards.

Literature Review

Many studies on dental carries have been carried out in home and abroad but only limited studies on pattern of dental diseases and knowledge regarding oral hygiene practices have been carried out in developing countries specially in Bangladesh. Among numerous literatures, the following relevant literature were reviewed for this study which are discussed as follows:

Common oro-dental problems

AM Bhuiyan [6] in his study observed the actual situations of prevalence of oral and dental diseases in the community. A random sample was taken from the four different places in the rural areas about 30 to 60 km away from Dhaka city. Eight respondents were examined. All the rural oriented socio-economic groups comprising male, female and children aged 30 to 80 years were included in this study. The majority of them were poor. The study shows that most common dental problems are gingivitis, periodontitis, caries, attrition, mobility, broken down teeth, alveolar abscess etc.

Dental caries

WHO defines dental caries as localized, post eruptive pathological process of 1 origin involving the hard part of the tooth tissue causing softening and proceeding to the formation of cavity".

Pathogenesis

When food substrate, especially fermentable carbohydrate remains in the mouth for a definite period of time, certain bacteria initiates cryogenic process which ends ultimately by acid production and destruction of tooth surface.

So, essential requirements for development of dental caries is:

- Cryogenic bacteria.
- Bacterial plaque.
- Stagnation area.
- Fermentable bacterial substrate (sugar).
- Susceptible tooth surface.
- Time for the process to develop.

Factors related to dental caries:

1. Knowledge about dental diseases.
2. Practice of personal oral hygiene care.
3. Educational status of the individual.
4. Food habit.
5. Socio-economic status.
6. Mothers education.
7. Parents occupation.

Knowledge about dental caries and practice of personal oral hygiene care

Lack of knowledge about dental care practices play a great role in developing dental caries.

A cross-sectional study was conducted among 158 facilities having under 12 years old children in Manikgonj town in mid 1994 to assess their knowledge on dental caries and its causes and prevention by Awal., *et al* [3]. The study showed that prevalence of dental cries in male and female children was 38.2% and 37.2% respectively. The study showed that 52% mothers, reported that 'washing mouth cleaning teeth regularly and correctly and washing mouth and cleaning teeth every morning respectively as oro-dental hygiene. About 50% of mothers did not know about oro dental hygiene and measures for its prevention. Another cross sectional study by Alam Mr., *et al* [1] in Charghat upzilla of Rajshahi among the primary school children was done to assess the prevalence of dental caries and associated factors which states that prevalence of dental caries is higher due to illiteracy and ignorance about personal oral hygiene practice, aetiology of dental caries, its prevention and complication of the dental decay particularly dearth of oro-dental cleanliness.

Begum A [8] in her review a on oral health education in Bangladesh snowed. the knowledge of oral health education is an important aspect of our has a great role for the community, Bangladesh is a developing country an of the people are very poor and illiterate. About 95°/o people live in the rural areas, most of the people are the victim of different oral disease eq. caries and its complication and the term oral health education is beyond their knowledge She identified that the major oral health education problem in our country are illiteracy lack of motivation, financial problem, inadequate of dental surgeons dietary/ and other habits and administrative Problem.

Food habits

Food habit has a vital role in the development of dental caries. Fermentable carbohydrate is the principal food to develop dental caries.

A study by Awal., *et al.* [3] shows that 60°/o mothers reported in take of excessive sweets as one of the main cause of the dental caries.

Educational status of parents

Educational status 01parents is a key factor in development of dental diseases specially dental caries.

Haque MJ., *et al.* [2] carried out a cross-sectional study on dental caries in preschool children aged between 2 to 5 years in Sadar union of Dhamrai Thana, in Dhaka.

District to know the prevalence of caries and the associated factors responsible for it. The study shows a significant association between dental caries of children and educational status of parents. The children of illiterate mothers suffered more (32.28%) from dental caries than those of literate mothers (19.12%). In their study they found that with the increase of the educational status of mother, prevalence of dental caries decreased.

Scio-economic status

Socio-economic status always a countable factor for common health problems in our country. Similarly, in case of dental diseases it has a direct influence in causation of dental diseases. The cross-sectional study by Alam MR., *et al*. [1] shows that according to economic class rich are less sufferer than middle and poor class children.

A Study by Shahidullah., *et al* [5] showed that there is significant association between annual income of parent and dental caries of the children. The family having more family income is capable and habituated to take excessive sweets and sweet products which ultimately produces more dental caries. The study revealed that the significant differences had been observed between the overall prevalence rate of DMF teeth in children who were not in the habit of sweet drink intake with those who were in the habit of sweet drink intake occasional and regularly, in other children who were in the habit of sweet intake were more prone to DMF teeth.

Prevalence of dental caries in Bangladesh

Prevalence of oral diseases is related to socio-economic, environment and habits in the community The above factors are always changing in the society This is also related to political changes. It is observed that the number of dental patients have been increased in the Government hospitals and private dental clinics in Bangladesh.

A cross sectional study by M R., *et al.* in Charghat upzilla of Rajshahi in a primary school showed that caries of deciduous teeth is more than that of permanent teeth. The overall percentage of carious lesion is 45.05%. Male and female were affected 56 04% and 34 06°/o respectively Caries affected the teeth of children below 10 years was 54.05% and above 10 years was 31°/o i.e. the caries of deciduous teeth is more than that of permanent teeth.

Haque MJ., *et al.* [2] carried out a cross-sectional study on dental caries in preschool children aged between 2 to 5 years in sadar union of Dhamrai Thana, in Dhaka district to see the prevalence of caries and the associated factors responsible for it. Dental caries prevalence in male children was slightly higher (30.8%) than in female children (28.2%). It was found that the prevalence was highest (43.6%) in the 4 to 5 year age group.

A study on dental caries in primary school children in rural areas of Dhaka was conducted by Begum., *et al* [9]. The study revealed that the prevalence of dental caries was higher in the age group 5 to 9 years (60%) than in 10 to 12 years (49%). Higher prevalence of caries was also observed on female (58%) than the male children (52%).

Prevalence of dental caries (Developed and developing countries)

J Reddy [11] in his article "The WHO oral health goals for the year 2000 in south L Africa" stated that dental caries has declined significantly in a number of developed countries. The increased use of fluoride in various forms, improved oral hygiene measures and reduction in sugar consumption are the suggested reasons of the decline. In contrast the prevalence and severity continue to increase in developing countries. There is overwhelming evidence that the increasing consumption of sugars in the developing countries is the principal cause for this increase.

Factors associated with decreasing prevalence of dental caries

Begum A [8] in her article on changing trends of dental caries prevalence stated that the prevalence of dental caries is taking a changing pattern for the last few years. Previously caries had been expressed to be a disease of rich and more privileged individual or group of the society. In recent years this pattern has changed. Prevalence and intensity of dental caries is now diminishing in developed regions of the world but is increasing in developing countries In industrialized countries canes has declined about 40% in the last 10 years. Certain factors are responsible to decline these trends of prevalence of caries in developing countries like Bangladesh which are stated below:

- Water fluoridation-fluoride in water reduces caries up to 50 - 60%.
- Fluoride gel solution and fluoride varnish ha also role in preventive dentistry and are in use in developed countries.
- Fissure sealant reduce caries up to 42%.
- Reduce sugar consumption.

She also revealed that declining trends of dental caries in developed countries has been established by researchers and epidemiologist as in Birmingham within the last 10 - 15 years there is about 32 - 57% of reduction of caries in school children.

In a review article on Role of Fluoride in Dental caries by Jalil KA [12] states that role of fluoride in the prevention of dental caries is well established. He also revealed that the maximum fluoride protection of teeth may be achieved if:

- The water supply is fluoridated or daily tablets are taken in an adequate dose.
- The dental patients teeth painted with a topical fluoride solution. A clinically prolonged fluoride toothpaste is used.

Gingivitis

MMH Khandker [13] states gingivitis as the inflammation of the gingiva cue to bacterial plaque accumulation at the gingival margin of the tooth due to poor or hygiene which is due to failure to brush teeth properly.

Pathogenesis

If bacterial plaque deposition in dento-gingival area is continued for many days then gingival colour become red and slightly swollen with oedema.

Types

- Common Types
- Acute gingivitis
- Chronic gingivitis
- Less commons types
- Acute ulcerative gingivitis
- HIV associated gingivitis

Miscellaneous

Gingival hyperplasia

- Familial
- Drug related

Chronic gingivitis

Chronic gingivitis is asymptomatic, low grade inflammation of the gingiva, which become red and slightly swollen with oedema.

Factors

In most of the patients, chronic gingivitis is due to local factors and in particular ineffective brushing. So, the factors may be classified in this way.

Local

- Poor tooth cleaning technique.
- Dental irregularities providing stagnation areas.
- Restoration or appliances causing stagnation areas.

Systemic

- Pregnancy
- Downs syndrome
- Poorly controlled diabetes mellitus

Gingivitis: Bangladesh situation

A prevalence study by MH Khandaker [13] was done among the three different socio-economic group of people in Dhaka city within age range of 15 to 55 years shows that 1026 (85.5%) subject had different grades of gingivitis, severe gingivitis in 250 (20.800/o), moderate gingivitis 170 (14.83%), mild gingivitis 174 (14.5%). The oral hygiene status and gingival condition co-related show 85.5°t 'of subjects suffered form gingivitis of different grades which proves a definite co n with poor oral hygiene status 85.09%.

Prevalence

According to WHO technical reports gingivitis is one of most wide spread disease Bangladesh. 80% of young children and almost entire adult population of developing countries are suffering from chronic gingivitis.

Descriptive epidemiological studies have been shown periodontal disease to be prevalent in

Blacks than white

- In rural than urban inhabitants
- Poorly educated than in the well educated
- In the poor than in the wealthy
- In man than in women
- And in person with poor oral hygiene.

Periodontitis

Periodontitis the periodontal inflammatory status of periodontal which is the sequalae of untreated gingivitis.

It is identified by 4 clinical signs:

1. Bleeding from gum after probing.
2. Presence of calculus.
3. Presence of shallow periodontal pocket (4 and 5 mm).
4. Presence of deep periodontal pocket (more than 5 mm).

Types

Common types

- Acute periodontitis
- Chronic periodontitis

Uncommon types

- Prepubertal periodontitis
- Juvenile periodontitis
- Rapidly progressive periodontitis
- HIV associated periodontitis

Factors

According to MAK Jaorder., *et al.* [14]:

1. Knowledge about dental diseases.
2. Food habit of an individual.
3. Nutritional status (Malnutrition may aggravate periodontitis).
4. Smoking.
5. Betel nut chewing (Pan).
6. Tobacco powder rubbing-of the gums (goal).

Cause

1. Plaque and calculus accumulation in dentogingival area.
2. Overhanging restoration.
3. Food packing due to faulty contact points.
4. Irregularities of the teeth.
5. Mouth breathing.
6. Pocketing.

Periodontal situation of Bangladesh

Joarder., *et al.* [14] reviewed the data from reports on periodontal diseases in Bangladesh between 1982 and 1990. He stated that more than 80% of the children in Bangladesh experience calculus and bleeding of the gum. In Bangladesh 85% of the population have complained of periodontal diseases and they are the single most factor for tooth extraction. Study by AM Bhuiyan [6] in his study showed that the Magnitude of the problem periodontal disease is awe-inspiring. In a survey in the rural area not a s in irrespective of age was found to be free from periodontal disorder. A study by Kalam., *et al.* [15] states that about 90% population of Bangladesh are the its of rural areas, where they receive very minimum health services. More specifically they are quite ignorant about oral hygiene. It has been observed that prevalence and severity of periodontal disease has been increasing anxiously higher among this rural population than the urban.

Periodontal situation of India and Srilanka

A number of epidemiological studies indicate that the periodontal disease is more prevalent and severe in the area of India and Sri Lanka (Day and jrir 1949 Greene 1960, Gupta 1962, Ramfjord 1961). The general impression from literature remains that exceptionally insufficient oral hygiene measures to constitute the main reason for higher prevalence and seventy of disease in India.

Alveolar abscess

The dento-alveolar abscess is an acute abscess, which arises within the bone of the mandible or maxilla. Its point of origin is usually from the region of either the apical or lateral but other root areas are sometimes involved. Dento-alveolar abscesses are usually secondary to infection and death of the pulp, often as result of exposure to pathogenic infection from a carious cavity or following trauma to teeth.

A study of micro-organism involved in Dento-Alveolar infections by A Hossain [16] shows that most of the dento-alveolar abscess usually develop from untreated chronic cases A series of 90 patients is reported with a history of Dento alveolar with the emphasis on causative micro-organisms, were cultured and sensitive test from July 1994 to May 1995. There were 50 males and 40 females, m number of patients age being were in 18 to 30 years and the lowest in the age group of 5 and above 55 years. Source of infections of the mentioned study were mainly pericoronitis of lower 3 molar and long standing 9rOss caries of lower 1 and 2 molar constituting 70% and 20% of the infections. Infections from gross caries of lower D and E accounted for 10%. 600 of the involved micro-organism were streptococcus. l0% were *Staph. aureus*. 6% were - proteus and 5% were entero-cocci. All patients were treated by drainage the pus c by conventional surgery and proper antibiotics.

Attrition

Attrition of a tooth results more rapidly from a gritty diet and is seen in those from developing countries on in ancient skulls. Attrition may also be seen in the elderly hand can result from a sub-conscious tooth grinding habit, which may be noctural and may be associated with pain dysfunction syndrome.

Abrasion of the necks of the tooth is mainly in the elderly as a consequences of over vigorous tooth brushing or use of an abrasive dentifrice. The exposed dentine is shiny and smooth eventually grown into necks of the teeth can be so deep as to extent into the pulp chamber but reactionary dentine protects the pulp. The crown of the tooth may break off without exposing the pulp.

Mobility

Anterior, posterior or lateral movement of the teeth from its alignment up to some extent while it is hold by two fingers or dental instrument and forced to move.

Causes

1. Plaque and calculus accumulation in dento gingival area.
2. Alveolar bone loss resulted from chronic gingivitis or chronic periodontitis.
3. Patients having long history of trauma.
4. Untreated chronic alveolar abscess.

Factors

1. Lack of knowledge about dental diseases.
2. Ignorance about dental care practices.
3. Negligence in treatment during mild stage of the disease (acute gingivitis or
4. periodontitis)

Research Methodology

Type of study: Descriptive type of cross-sectional study.

Place of study: The Study will be carried out at out patient department of sapporo dental College and hospital, Dhaka.

Study period: The period of study will be Six month 1st January to 30th June of 2012.

Study population: All the patient with oro dental problems who were coming to the out patient department of Sapporo Dental College and Hospital, Dhaka for treatment. The Total number of patients attending at the out patients department daily is approximately about 60 - 90.

Sample size

The sample size was determined by employing the formula:

$$n = \frac{z^2(p \times q)}{d^2}$$

For estimation of sample size a preliminary estimate of p = 80% was made based studies of Khanduker. Taking prevalence of chronic gingivitis as 80% and confidence level of 95% with accepting 7% error, the sample size worked out to be 125.

Note: Formula for sample size estimation n = $\frac{z^2(p \times q)}{d^2}$.

Where,

n = Sample Size

p = 80% = .80 (prevalence of chronic gingivitis in the study group)

q = 1-p = .20

z = 1.96

error = 7%

Sampling technique

The researcher took his own place in the out patients department of Sapporo Dental College and Hospital. After getting registered the patients came to the department for receiving treatment. At that time the researcher sought help form the attending doctor for taking the interview of the patient and also for clinical examination. So, every fifth patient of that out patients department of Sapporo Dental College & Hospital was selected till the total sample size was drawn. The respondents were selected for interview and examination according to their serial number in the outdoor register.

Research instrument

In order to collect the data a structured questionnaire and a check list was prepared at the beginning of the study by considering all the objectives and variables of the study.

At first, a draft questionnaire and check list was developed for pre-testing among the respondents of out patients department update Dental College and Hospital, Dhaka. After Pre-testing, the questionnaire was finalized for data collection. The questionnaire was prepared initially in English, then translated into Bangla for interview purpose.

Data collection

The data were collected by the researcher himself through direct interview and by clinical examination of the respondent using a structured questionnaire and a check list after taking verbal consent.

The examination of oral, cavity and teeth of the students were done under good illumination with the help of dental probe and mirror in the department where the patient sat on an electric dental unit. Clinical evaluation were made for overall oral health condition e.g. Gingivitis, periodontitis, caries, alveolar abscess, tonsillitis etc. For monthly income of the family, the respondents were asked about all the sources of total income.

Materials used for clinical examination are:

1. Tongue depressor
2. Dental probe
3. Curved
4. Straight
5. Mirror

6. Cotton
7. Antiseptic solution

The oral cavity was enlighted by the dental light fitted with the electric dental unit. Tongue depressor was applied to retract the tongue, the dentition and tonsils were examined with it. Then the sharp probe was pressed firmly into the fissure or black mark to identify the caries teeth. The missing and filled teeth were also counted. The data were checked before leaving the interview place and necessary correction were made on the spot.

Data processing and analysis

After collection, data were checked, verified, edited and entered into computer and consistency was checked. Data was analyzed by using Statistical package for Social Science (SPSS) version 11.0 software program according to key variables, statistical significance was done according to the objectives of the study.

Conclusion

This study may also be helpful to suggest guidelines for the policy makers to include dental health education in educational institutions and explore new ideas for further research and preventive measure against the Oro dental diseases. Thus, generated information from this study will be of immune benefit for the health policy planners/authorities of the country to implement necessary intervention to prevent and/or control common dental problems in the country.

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