Report

[Name] | [ID]

# Executive Summary

Pregnancy is the most desire time for every woman, during this time due to pregnancy a woman has to go through hormonal changes within her body this changes come with the risk of developing many oral diseases such as gingivitis, periodontitis, pregnancy granuloma and tooth decay. According to research as a result of hormonal changes in pregnancy 40%of women face pregnancy related dental diseases during their pregnancy period.

According to many research it has been proved that if mother suffer periodontal diseases in her pregnancy period there might be a risk of giving birth a preterm low birth weight baby. On the other hand, due to increased cariogenic bacteria level within mother blood it may result of caries in baby in future

All these conditions are preventable if a mother follow good oral hygiene habits during her pregnancy period at home (Brushing twice a day with fluoride containing toothpaste, flossing once a day, using anti-bacterial mouth rinse).

Female who are living in slum have very little chance to lead a decent life style, they have lacking of foundation to maintain a healthy life with this have huge responsibility of maintaining own homes and take care of family. Poverty, is itself a big global concern and people who are living in slum area are deprived from every kind of social facilities and struggling to meet up their daily needs. When women are a central issue nowadays so it’s obvious to see how women are struggling to maintain their basic medical needs in developing country like Bangladesh.

This project will help us to realise the dental health status of the pregnant women living in slum of Dhaka city and their knowledge on their preventive practice regarding this issue.

Table of Contents

[Introduction 3](#_Toc497798598)

[Search Strategy 5](#_Toc497798599)

[Literature Review 11](#_Toc497798600)

[Aim of the Study 14](#_Toc497798601)

[Objectives of the Study 14](#_Toc497798602)

[**General objective** 14](#_Toc497798603)

[Specific objectives 14](#_Toc497798604)

[Research Question 14](#_Toc497798605)

[Methodology 15](#_Toc497798606)

[A. Variables 15](#_Toc497798607)

[1.Scocio demographic variables: 15](#_Toc497798608)

[2.Knowledge 15](#_Toc497798609)

[3.Preventive Practice: 15](#_Toc497798610)

[4.Source of Information 15](#_Toc497798611)

[Section A: Socio-demographic data 17](#_Toc497798612)

[Section B: Knowledge on preventive practices for dental diseases 17](#_Toc497798613)

[Section C: knowledge on preventive practice about dental diseases 17](#_Toc497798614)

[Discussion 20](#_Toc497798615)

[Conclusion 23](#_Toc497798616)

[Recommendation 23](#_Toc497798617)

[References List 24](#_Toc497798618)

# Introduction

Studies concerning the epidemiology in dentistry have showed that dental caries and periodontal diseases are the most prevalent pathologies that affect the oral cavity. Previous studies performed by American researchers had suggested that dental caries was the main reason for teeth extraction, and other studies accomplished in New Zealand, Sweden, and even in Bangladesh confirmed that caries may lead to tooth mortality. On the other hand, some studies suggested that periodontal disease was the most prevalent reason that leads to tooth loss. Thus, controversial findings could be explained by differences in the characteristics of the study population, immunological and genetic factors, cultural beliefs, and socioeconomic characteristics, among others. Immunological and genetic reasons are some of the contributory factors that may explain why some populations exposed to the same bacterial etiologic factors did not develop similar pathological conditions.

Populations with poorer socioeconomic conditions have shown higher prevalence and extent of teeth mortality, which increases with aging. The prevalence, extent, and risk indicators for tooth loss were studied in a representative Bangladeshi population, showing that 94% of the subjects had experienced tooth loss. The authors verified a tooth mortality mean of 11.2, ranging from 5.5 to 20.2 teeth in subjects from 30 to 39 years old and 60+ years age groups, respectively; gender, socioeconomic status, cigarette smoking, caries experience, and attachment loss were important risk indicators.

On the other hand, a decline in the tooth loss can be verified in developed countries in the last years, which can be explained by preventive programs and higher accessibility to the oral health care that have been decreasing the extractions. Bangladesh is a country in development progress (underdeveloped), and some studies verified the prevalence of tooth extractions in Bangladeshis, but few of them have verified the reasons for the tooth mortality in this population. Thus, the aim of this study was to describe the epidemiological data of the prevalence and reasons for teeth extractions in a convenience sample of Bangladeshis. Billions of dollars each year are allocated to research with the goal of improving the health of a population. Despite this, many health policies in place do not reflect the current science. Often, findings from basic, clinical, and health services research fail to be translated to policies and practice that may improve health. Scientists play a critical role in explaining their findings as part of the health policy process. For proper dissemination, implementation, and adoption, scientists must not only conduct rigorous science but also be able to communicate their work to the appropriate bodies to improve policy outcomes as well as population health.

The most-touted success story of translation of science to policy implementation is community water fluoridation. Although it has been met with some challenges, international and domestic policies have embraced community water fluoridation. The U.S. Centres for Disease Control and Prevention (2015) has listed “fluoridation of drinking water to prevent dental caries” among the “achievements in public health, 1900–1999.” Many communities have implemented water fluoridation programs, and dental caries rates have declined (American Dental Association 2005). Recently, the role of sugar in the dental caries process has garnered much attention. The association of diet, namely sugar intake, on the development of dental disease has been established, but what remains to be seen is how these findings will be translated to widespread policies to reduce intake.

# Search Strategy

Dentists have been exhorted to perform opportunistic screening for oral cancer, when adults attend for routine oral examinations. It is argued that lesions in pre-symptomatic stages may be detected, thus improving long-term prognosis. However, such advice presupposes that dentists can make a valuable contribution because patients at risk present for regular routine dental checks.

While not exclusive to Bangladeshis in the UK, a number of studies have confirmed the very high prevalence of betel quid ('paan') and tobacco chewing among members of this community, compared with other groups originating from the Indian sub-continent. A higher proportion of women eat 'paan' and with greater frequency while many Bangladeshi men smoke. The association of tobacco/paan chewing with oral cancer has been derived mainly from studies in India, but is now supported by evidence from the four Thames regions, where about 5 per cent of the total burden of oral cancer is among Asian migrants with high rates of tobacco-chewing habits.

The authors selected their sample from medical practices in Tower Hamlets. Given the methodological problems inherent in obtaining a population sample and the very high medical consultation rates among Bangladeshis, the findings are unlikely to substantially misrepresent the situation in this population group. This methodology opens up debate about the potential for working with primary care medical practices in offering alternative approaches for screening for Bangladeshis, particularly as doctors were perceived as the appropriate person to consult with mouth ulcers or a sore mouth.

One third of the population reported that they had visited a dentist within the past year, while one quarter had never been. This raises questions about their perception of the value of dental services, as well as how access could be facilitated. A symptomatic approach was the norm, so that in the absence of a 'problem', attendance is unlikely to occur. Language difficulties presented the greatest problem for access, especially among females, while the use of advocates or interpreters and extended surgery opening hours were seen as helpful.

Overall, this paper confirms an important challenge, which while pertinent to Bangladeshis, can have wider implications for other less-accessible, high-risk population groups. The provision of a supportive environment in order to promote oral health in acceptable and appropriate ways, must involve working with the communities themselves.

The maternal mortality ratio (MMR) is not merely an indicator of maternal health but is also considered to be an important indicator of the health status and well-being of a nation. Bangladesh has made a significant improvement in several health indicators. Nevertheless, although the maternal mortality ratio has declined from more than 600 in 1980 to 322 in 2004, it is still one of the highest in the world. Regional variations in MMR are also observed in Bangladesh.

In Bangladesh, pregnancy and delivery-related deaths account for 20 percent of the deaths in women of reproductive age. Ten percent death occurs during delivery, and the one in five occurs before delivery and remaining death after delivery. The leading causes of maternal deaths are haemorrhage (29 percent) and eclampsia (24 percent). Other direct major causes of maternal deaths are prolonged/obstructed labour and puerperal sepsis. The lack of knowledge on maternal health and negative attitude towards seeking delivery care from qualified providers contribute largely to the high rate of maternal deaths in Bangladesh.

The key challenges in reducing maternal and neonatal mortality include lack of access, and inadequate and poor quality of maternal and neonatal health (MNCH) services. Although the government has developed a comprehensive maternal and child health service delivery infrastructure from grassroots to higher levels, there is a significant underutilization of the existing capacity due to both demand- and supply side barriers. These barriers can be well understood in the framework of the three delays: (i) delays in making the decision to seek care for lack of awareness, and social-cultural-gender inequality, (ii) delays in reaching a medical facility due to transportation related obstacles, and (iii) delays in receiving adequate treatment or management at the facility. The first two delays reflect the demand-side barriers while the third delay occurs at the supply-side, which, in turn, affects the demand side barriers.

* Bangladeshi adults have a symptom-orientated view of visiting dental services. Regular attendance at GDPs is not a salient issue to them.
* Bangladeshi adults often encounter language difficulties in their use of health services. Initiatives to overcome communication barriers are required.
* There are high levels of tobacco use in the adult Bangladeshi community.
* Dentists should routinely enquire about tobacco and paan habits in their Bangladeshi patients.

With impressive progress made in recent years, Bangladesh is one of few developing countries on track to achieve Millennium Development Goal 4 to reduce child mortality. Between 2004 and 2007 child mortality has fallen from 88 per 1,000 live births to 65 per 1,000 live births.1 However, despite this encouraging trend, neonatal mortality in Bangladesh is still high, accounting for more than half of all under-five deaths and more than two-thirds of infant deaths. An estimated 120,000 new-borns die every year in Bangladesh. The share of neonatal deaths to infant mortality has increased over the period 2002-2006, largely because there has been little progress in preventing neonatal deaths. Poor neonatal health and under-nutrition of both mothers and children could affect the current success in improving child survival.

Different studies show that utilization of antenatal care (ANC) and delivery care can reduce maternal mortality and morbidity significantly. However, the utilization of maternity care provided by trained professionals during and after delivery is alarmingly low in Bangladesh. While there has been some improvement in the recent years, about half of the pregnant women still do not seek any ANC The World Health Organization (WHO) and the Government of Bangladesh recommend a minimum of three ANC visits, with one visit every three months. Only one in three pregnant women made three or more ANC visits Among those who receive ANC, 31 percent receive services during the first trimester and 24 percent delay seeking care until the third trimester. The frequency of ANC visits and early initiation of ANC is higher among women with first births, women in urban areas, those who have completed secondary school, and those from among the wealthiest households.

Pregnancy and delivery-related deaths account for 20 percent of the deaths in women of reproductive age (NIPORT et al. 2003). Two-thirds of maternal deaths occur after delivery; one in ten occurs during delivery, and the remaining one in five occurs before delivery. The leading causes of maternal deaths are haemorrhage (29 percent) and eclampsia (24 percent). Other direct major causes of maternal deaths are prolonged/obstructed labour and puerperal sepsis. The non-availability of trained providers, low uptake of services by women, and infrastructure difficulties all contribute to the high rate of maternal deaths in Bangladesh.

To reduce the health risks for mothers and children, it is important to increase deliveries by skilled providers with adequate medical supervision. Yet, delivery at home remains almost universal in Bangladesh. About 85 percent of babies are born at home. Seven percent of deliveries occur in public health facilities; and eight percent occur in private hospitals and clinics. Trained providers (doctors, trained nurses or midwives, or paramedics) attend only 15 percent of deliveries. Only 29 percent of women with complications during delivery receive treatment from trained providers; 33 percent visit unqualified providers. The remaining one-third does not seek any care for maternal complications at all. The proportions of institutional deliveries are higher among women of higher socio-economic status, women in urban areas, and women with secondary school or higher education. To examine the knowledge of antennal and delivery care among the pregnant women who were attended in Magura district hospital for receiving maternal health services.

A search strategy is needed so that an efficient result can be obtained. We have used the database of peer reviewed papers and journals for the study. The database of such papers has been used. The data has been set to 5yrs from the date of search, so that only updated data is received. The key terms used include: dental care, Bangladesh, Health care, pregnancy, etc. We included the articles which was data based and data driven with numbers and tables. Only theory based papers were rejected. A listed of number of papers is listed below.

**Complete the table:**

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| --- | --- | --- | --- | --- |
| **Key terms**  | **Cinahl articles**  | **BNI articles** | **Medline articles** | **Total articles** |
| Bangladesh, Dental Care, Health Care | Retrieved = 5Included = 3Not relevant = 1 | Retrieved = 10 Included =4Not relevant = 2 | Retrieved = 7Included = 2Not relevant = 1 |  22 |

Knowledge: Knowledge is a familiarity, awareness or understanding of someone or something such as facts, information, description, or skills, which is acquired through experience or education by perceiving or learning.

Preventive Practice: Preventive practice includes regular tooth brushing, method of tooth brushing, mouth rinse and tooth flossing practice which will help to reduce dental diseases.

Dental Diseases: Dental diseases is any condition of the teeth structure that can be congenital or acquired. Acquired include Dental diseases, Cavities, Gum diseases (Gingivitis, periodontitis).

Pregnancy: The period of conception to birth. The state of carrying a developing embryo or foetus within the female body.

Pregnancy usually lasts 40 weeks.

Slum: A slum is a heavily populated urban informal settlement characterized by substandard housing and squall.

# Literature Review

To start every research work, it is pre-requisite to review the concerned literature which gives proper information and assistance and supports either right-way or obliquely to reach proper decision. Therefore, for this project I have also studied various literature regarding this issue: Knowledge on preventive practice about dental diseases among pregnant women at selected slums of Dhaka city.

A study on Knowledge of periodontal diseases and oral hygiene practices among pregnant women attended maternal and child health or family planning clinic at Kenyatta national hospital:120 pregnant women were attended and questioned about their oral hygiene maintenance and knowledge regarding dental practice. All the data were collected by interview administrated questionnaire and question were filled up during the interview according to the response of the patient. Collected data was analysed by SPSS where it was presented by proportions and percentages of the entire sample. All the participants followed dental hygiene, among them 61.8% know about dental plaque, 45% conscious about dental calculus,44.9% know about dental diseases like gingivitis and periodontitis,86.4% were responsive that gingivitis becomes painful during the period of pregnancy. A greater portion of them (47.8%), did not aware that gingivitis and periodontitis can change the outcome of pregnancy and also has important role on safe delivery and healthy new born baby. Besides, just 27% of the contributors accepted that they received advice from MCP/FP clinic to visit dentist during the period of pregnancy when 70% of the contributors denied that they did not get any advice to visit dentist during this crucial period. On the other hand, only 42.7% of contributors accepted that they got news regarding dental hygiene and practice from the MCH/FP clinic during the check-up period.

A large percentage of women usually visit MCH/FP clinic but very less amount of women gets information regarding periodontal diseases and its outcome and necessity during pregnancy that’s why their knowledge about dental diseases and preventive procedure and relation with pregnancy is not significant.

An article published in 2011 done by Foozle Atrabashi Mogahadam in Yazad regarding Evaluation of periodontal health knowledge, attitude and dental hygiene practice shown that total 149 pregnant women with various stages of gestation were chosen arbitrarily where questionnaire was designed by author containing 23 questions to assess the knowledge of the participant’s regarding periodontal health and oral hygiene practice, data were analysed by ANOVA, chi-square test and Pearson’s correlation coefficient using SPSS. The outcome disclosed that 48.3% women’s knowledge is moderate,85.9% women’s attitude is moderate and the majority of the women contributed the study have moderate level of oral hygiene (49%).However, among all the participating women only 7.9% was suggested by the gynaecologists to visit dental professionals. So according to the study the total outcome about knowledge on preventive practice regarding dental diseases is moderate.

A survey done by Akila Ganesh in Tongi on Dental Knowledge upon the women who attended antenatal care of Government Maternity Hospital, knowledge was measured by close-ended survey. Oral hygiene Index Simplified and Gingival Index was used to assess dental hygiene and the health of gingiva, Mc Nemars Chi Square Test and Karl Pearson’s Correlation test

Were used to assess the data. More than 96.6%(201) of the women had good dental knowledge, there were presence of mild, moderate and severe gingivitis and the percentage were 49.5%(103),46.6%(97) and 3.8%(8) but there was a presence of statistically noteworthy moderate positive correlation found between OHI-S and GI scores (p=0.001, Pearson correlation coefficient =0.57). The recommendation was women should give education regarding oral hygiene maintenance in order to minimize the rate of gingivitis during their pregnancy period.

An article published in the year of 2011 on Oral health condition of pregnant women came to attend antenatal care at the mothers and children welfare centre(MCWC) in Bangladesh where data was collected by face to face interview questionnaire and clinical examination with structured questionnaire and check list where half of the pregnant women was in between the age of 15-20 and the mean age was 22.28±4.22 years, among the participated women 38.2% had primary education only and 78.4% did not go to any dental professional during this period. Besides, 93.1% usually use toothbrush before breakfast and 84.4% did not have any idea about dental hygiene care. Along this in case of their oral health condition 87.3% affected by carious teeth,94.1%suffering from gingival inflammation. The rate of gingival inflammation and presence of dental calculus was highest among the aged women (21-35) than the youngest group (15-20) and 92.2% of them are living in slum whereas most of them are house wife. Gingival inflammation was highly found among the women with low income (95.7%) than the others (income groups X2=5.80, p>0.05). The findings of the study suggested that introduction of all the necessary dental health services towards the pregnant women and make them available and easily accessible in order to prevent and control various dental diseases during the gestation period.

# Aim of the Study

Outline the knowledge on preventive practice about dental diseases among pregnant women who are living in slum area in Dhaka city in Bangladesh. Through this study we can figure out the actual situation, the reasons of their lacking of knowledge and the level of their knowledge about oral diseases which mainly occur during the pregnancy period.

# Objectives of the Study

## **General objective**

To find out the level of knowledge on preventive practice about dental diseases among pregnant women at selected slums of Dhaka city.

## Specific objectives

-To identify the level of knowledge on preventive practice for dental diseases among pregnant women.

-To evaluate the knowledge on preventive practice about dental diseases among pregnant women.

-To find out the socio-demographic characteristics of the respondents.

# Research Question

What is the level of knowledge on preventive practice about dental diseases among pregnant women at selected slums of Dhaka city?

# Methodology

## A. Variables

### 1.Scocio demographic variables:

Age, Education, Occupation, Family income(monthly)

### 2.Knowledge

-Pattern of dental diseases.

-Cause of dental diseases.

-Symptoms of dental diseases.

### 3.Preventive Practice:

-Regular tooth brushing

-Method of tooth brushing.

-Mouth rinse, food habit, Tooth flossing.

-Tooth damaging factor (Gull, Jorda).

### 4.Source of Information

Media, NGO, Health Worker, Family, Doctor.

**1. Study design:**

Descriptive cross-sectional study was adopted for this research.

**2. Study area:**

Study was conducted at selected slums of Dhaka city.

Dhaka is the capital city of Bangladesh and is the principal city of Dhaka division and Dhaka District. Standing in the east bank of Buriganga River, Dhaka is the most populous city in the Bangladesh and the tenth largest city in the world. Dhaka divided into two Zone-North and South.

**3. Study period and duration:**

Study was carried out for the duration of 4 months starting from January 2011 to April 2011.

**4. Study population:**

The study population was the pregnant women of the selected slums of Dhaka city.

**5. Sample size:**

The sample size of this study was determined by following equation.

The formula for calculating sample size is:

$$n=\frac{z^{2}pq}{d^{2}}$$

Where, n=desired sample

Z=standard normal deviate usually at 1.96 which corresponds to 95%confidence interval.

Here as per source from literature review a study on Oral Health Status of Pregnant women attended the mothers and child welfare centre(MCWC)in Bangladesh showed that the majority

**6. Sampling Technique:** The whole Dhaka city is divided into two zone (North and South). To conduct this study slums was selected from this two zone by simple random sampling.

* Amongst this two zone two slums (Name has not been disclosed due to confidentiality) was purposively selected.
* Due to time constraints 110 respondents were selected by simple random sampling.
* Sampling frame was developed from the list of Owner of the slum as per inclusion criteria.

**7.1 Inclusion criteria:** Pregnant women.

**7.2 Exclusion criteria:** Physically and mentally severe ill to participate the study.

**8. Data collection method:** Data was collected by interview questionnaire and filled up by the researcher.

* After developing questionnaire, it was pre-tested among 7 (seven) women similar to study population outside (Name has not been mentioned due to confidentiality) the selected slums.

## Section A: Socio-demographic data

12 were prepared to find out the socio-demographic status of the respondents which include age, religion, education, occupation, personal income, family income, family size, family type, marital status, husband’s education, husband occupation, number of children and number of pregnancy.

## Section B: Knowledge on preventive practices for dental diseases

10 Questions were prepared to find out the knowledge on preventive practice for dental diseases which include painful gum, bleeding during brushing, puffy gum, bad odour present in mouth, toothache, duration of toothache, tooth sensitivity, cavity or hole present in mouth and food impaction

## Section C: knowledge on preventive practice about dental diseases

17 knowledge related question were prepared to find out the level of knowledge of the respondents, out of 17 3 were multiple response questions. Each right answer carried 1 mark and each wrong answer and not responded answer carried 0 marks. Maximum marks could be 25. Respondents with above 80% of correct answers were assigned excellent knowledge, those with 61-80%of correct answer were assigned good knowledge,41-60%were assigned poor knowledge, 21-40% were assigned poor knowledge and those with less than 21% were assumed to have very poor knowledge.

The recommendations developed by WHO are in place to protect the health of populations while understanding that individual differences may exist. In light of this, it suggests that these guidelines should not apply to those in need of specific therapeutic diets but rather be used by policy makers to develop policies consistent with national nutritional guidelines and cultural norms. The WHO recommendations are by no means calling for a zero-tolerance policy on sugar intake; rather, they are simply calling for a reduction in sugar intake that could improve the health of populations. Policy recommendations to limit sugar intake are certainly not new. In 2010, the U.S. Department of Agriculture and the U.S. Department of Health and Human Services jointly released the revised dietary guidelines. In it, they report that “added sugars contribute an average of 16 percent of the total calories in American diets,” and they make a recommendation that the total amount of added fats and sugars consumed be reduced to 9% to 15% (depending on total caloric intake) for an average adult. The 2015 guidelines are currently being developed and have been open for public comment. The draft guidelines include a reduction in added sugar intake to no more than 10% of daily energy. It also supports labelling and educational approaches, including added sugar labelling (U.S. Department of Agriculture and U.S. Department of Health and Human Services 2015). The American Dental Association (2015) was among many organizations that provided public comment in support of the dietary restrictions on added sugar intake. Other health policy approaches have been implemented to reduce sugar intake (Figure). In efforts to educate the public about nutritional content in packaged foods, the U.S. Congress passed the 1990 Nutrition Labelling and Education Act, which authorized the U.S. Food and Drug Administration to require that all packaged foods label the amount of nutrients, including sugars. In 2014, the U.S. Food and Drug Administration proposed a rule change to require a declaration of “added sugars.” Collectively, the recent policy changes should have some impact on sugar intake, but awareness raising and recommendations for intake restrictions are not often enough to prompt behaviour change. More attention is needed to address the accessibility of sugary products (i.e., access to vending machines) and disincentives for behaviour (i.e., sugar tax).

As the policies surrounding limiting sugar intake continue to evolve, attention must be given on how to best put these polices into practice to produce positive behaviour change, which ultimately should lead to improved oral health outcomes. Future research need not focus on the specifics of the restriction but instead on the behavioural changes required to adhere with the recommendations. Moving forward, perhaps policy makers could be courageous enough to develop policies restricting sugar intake consistent with national and WHO guidelines, and maybe researchers can begin to uncover the behavioural keys necessary for the successful implementation of these policies.

Translational research traditionally describes how basic biomedical sciences can be incorporated into clinical practice, but the additional step of translation of clinical science into improved health must also occur. This requires engagement of stakeholders (policy makers, insurance companies, private sector, etc.) who are in the appropriate positions to use the evidence to make informed policy decisions to improve the health of a population.

Thus the knowledge of the respondents was arbitrarily categorized into five categories-

 Very poor knowledge 0-20%

 Poor knowledge 21-40%

 Average knowledge 41-60%

 Good knowledge 61-80%

 Excellent Knowledge Above 80%

# Discussion

This descriptive type of cross sectional study was conducted among 110 women from two selected slums of Dhaka city to find out the level of knowledge on preventive practice about dental diseases among pregnant women. Data was collected from 15-19 age of women by semi structures questionnaire.

Regarding the socio-demographic characteristics, the present study revealed that majority of the respondents were within 25-29 years of age group followed by respondents14.44%respondents were of age group of 15-19 years,16.36%respondents were of age group 20-24yers,48.18%respondents were of age group,15.46% respondents were of age group 30-34 years,4.55%respondents were of age group 35-39 years and 0.99%respondents were of age group 45-49 years.

Regarding the religion, majority of the respondents 83% were Muslim followed by 1.81% Christian and 22.73% were Hindu.

Similarly regarding the respondent’s education majority of the respondents 40.0% were illiterate followed by primary 32.74%, Up to class eight 14.55%, S.S.C 8.8% and H.S.C 4.55%.

Regarding respondents Husbands occupation most of the respondent’s husband s 39.09%were doing business,9.09%were doing farming and 51.82% were doing service(employee).

Regarding respondent’s occupation 39.09%(n=43) were house wife,4.55%(n=5) were doing farming and 41.82%(n=46) were doing service(employee)and 14.55%(n=16) were doing business. Regarding respondents husband education that, 21.82%Of the respondent’s husbands were illiterate,35.46%were completed primary,28.18% were up to class eight,10.0%were completed S.S.C and 4.55%were completed H.S.C.

Monthly income of the respondents, majority of the respondents 30.90% had monthly income within a range of Taka 5,001-8,000,27.27%had monthly income within a range of Taka 8001-11000,18.18%had monthly income within a range of Taka 11001-14000,16.36% had monthly income less than 5000Taka and 7.27%had monthly income above 14,000 Taka.

Regarding number of pregnancy that 32%respondents had 1child,37%respondents had 2 children,16%respondents had 3 children,15%respondents had 4-6 child. Respondents knowledge on preventive practice about dental diseases that 68.18% had knowledge of painful gum while 31.8 did not have any knowledge regarding this.60% had experience of bleeding during brushing and 40% did not have any experience about this.76.36% are suffering from puffy gum while 23.64% are not suffering from puffy gum.62.73% had bad odour present on mouth where 37.27% did not have any experience like that.61.82% suffering from toothache ,where 38.18% are not suffering from toothache.76.36% are suffering from tooth sensitivity while 23.64% are not suffering from tooth sensitivity.70.91% suffering from food impaction where 29.09% are not suffering from food impaction.

Regarding materials used during tooth brushing 17.33% had use toothpaste,47.06%had use tooth powder,21.57% had use meswak,14.38% had use Gul.

Similarly regarding materials to overcome dental pain 44.07% of the respondents maintain tooth cleaning to overcome dental pain where 19.21%take medicine and 36.72% take nothing to overcome dental pain.

Respondents knowledge on preventive practice about dental diseases, ,7.8% knew regular tooth brushing Practice reduce dental diseases,84.8% knew use of dental floss, rinse with warm water can reduce dental diseases,44.1% knew brushing teeth after taking meal is important,87.3% knew regular dental check-up can reduce dental diseases,7.4% knew taking (gull,jorda) is harmful for tooth structure,90.2%knew rinse mouth after taking food is important,79.9% knew during pregnancy every mother should take care of their tooth with physical care,32.1% knew during pregnancy dental health of children depend on dental health of mother,85.2%knew before taking child mother should go to a doctor for dental check-up,19.0% knew during pregnancy every dental problem should take care seriously,7.7% knew during pregnancy dental problem makes mother dental health more painful,19.9% knew for better dental health mother need to take healthy food.

Respondents level of knowledge on preventive practice about dental disease that among 110 respondents,24.55% had very poor knowledge on preventive practice followed by 56.36% had poor knowledge,11.82% had average knowledge ,5.45%had good knowledge,1.82% had excellent knowledge on preventive practice.

The association between age of the respondents and their level of knowledge. Among the respondents with very poor knowledge, 28.91%were between 25-29 years’ age group. The respondents who had average knowledge level ,43.29%were in 25 -29 age group. Respondents who had excellent knowledge 100% of them were in 30-34 years’ age group. There is statistically significant association between age of the respondents and their level of knowledge (p<0.05).

The association between number of children and their level of knowledge. the table shows that those who had good knowledge, most of them had 2 and 3 children. Significant association (p=0.009) was found between these two.

The association between educational status of the respondents and their level of knowledge, among 110 respondents those who had completed H.S.C had 0% very poor knowledge,7.1% had poor knowledge,10.34% had average knowledge.

Due to time and other constraints, this study was conducted only on one hundred and ten respondents which might reflect the actual result representing the status of the knowledge of pregnant women all over the country.

# Conclusion

Most of the respondents had very poor knowledge and very few had excellent knowledge on preventive practice about dental diseases among pregnant women.

Significant association had found between age of the respondents and their level of knowledge, Number of children of the respondents and their level of knowledge, Education status of the respondents and their level of knowledge.

# Recommendation

This study was conducted in selected slums of Dhaka city which might not reflect the actual scenario of the whole country. Therefore, further large scale study is recommended.

There is a need to stipulate oral health instruction and learning programme for pregnant women during their pregnancy period in order to emphasize the impact of good oral health in accomplishing good health for mother and baby.

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