

# **“Healthy Teeth, Healthy Kids”**

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March 18,2020

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## INTRODUCTION

Dental caries is the most common disease globally and among US children. Early childhood caries (ECC) is a devastating form of caries that may affect the primary dentition as soon as an infant's teeth erupt. Tooth decay is the most common reason for non-emergency hospital admissions in 5–9-year-olds. Several studies show that Dental caries is preventable by educating children about the importance of oral hygiene, proper home care, and a healthy diet. It is also crucial to establish a trustful relationship between children and dental professionals for a healthy future. Therefore, our Dental Hygiene student group decided to visit second-grade children in school to increase awareness among the children; we believe educating them at a young age would help them set healthy behaviors for life. Our goal was for this to reduce tooth decay and the associated health burden as well.

In an England study<sup>1</sup>, mixed methods were used to tackle child tooth decay by testing the children's current knowledge and giving them an oral hygiene education. After baseline student knowledge questionnaires were assessed, 121 students between the ages of 5 and 9 were placed in intervention classes for oral hygiene lessons. Then, post-intervention student questionnaires were given. Looking at the baseline awareness questionnaires, three-quarters of children had high baseline awareness that you should brush your teeth twice a day (82%). However, only half of the children understood that you can protect your teeth from tooth decay (52%), and that tooth decay can make your teeth hurt (48%). Less than half of the children correctly answered that just before bedtime is the most important time of day to brush your teeth (31%), and 40% correctly answered that it is better to use toothpaste with fluoride in it. 58 students received the intervention; 10 out of 17 questions in lessons showed significant increase in correct responses (p

< 0.05). No significant improvements reported in the control. 58 students received an oral hygiene lesson and completed a baseline and post-intervention questionnaire. An increase in correct responses was reported for 14 out of 17 questions, of which 10 were significant changes ( $p < 0.05$ ). These significant improvements in knowledge were seen in the following ten questions: you can protect your teeth from tooth decay; tooth decay makes your teeth hurt; fruit juices, cornflakes, milk, and smoothies contain sugar; fruit juices could be bad for your teeth; the most important time of day to brush your teeth is just before bedtime; it is better to have toothpaste with Fluoride in it. Overall, this research made it evident that children's baseline knowledge around tooth decay and appropriate tooth brushing behaviors for a healthy mouth is currently low. Therefore, implementing the teaching of an important topic of oral hygiene into the curriculum at an earlier age will improve the burden of tooth decay on public health, agreeing with my student group's hypothesis and goal.

Another cross-sectional study<sup>2</sup> demonstrated how important it is to educate children about how to brush their teeth properly in order to decrease the prevalence of dental caries and mean DMFT score. Its results showed that the prevalence of caries in children with no brushing group was significantly higher than in those children who brushed their teeth two times a day. This suggested that tooth brushing with a frequency of at least twice a day may spare the teeth from developing caries by removing dental plaque more effectively and decreasing the risk of caries among children. Children must be taught to brush their teeth frequently and must be shown how this is an important determinant in decreasing the prevalence of dental caries and ultimately improves their oral hygiene and health.

In addition, research<sup>3</sup> has highlighted an important aspect of our goal, which is to reduce dental anxiety: a global public health concern due to its effects on an individual's oral health and quality of life. The prevalence of this condition in children ranges from 5 to 61%. At the community level, prevention of dental anxiety through giving education is a responsibility of the dental team. Also, this education should primarily be directed to children since the onset of dental anxiety often occurs in childhood. This implies that early intervention will help to prevent the problem from extending into adulthood, which corresponds to my student group's goal to set healthy life-long behaviors for students.

## **ASSESSMENT**

The target population for this Service-Learning Field Project was 2nd-grade students. Kids at this age range (7-8 years old) lack adequate knowledge of oral self-care, and most of them love to eat sugary foods and beverages. Why is our initiative important? Dental caries is very common in children. We know that caries in primary teeth increases the risk of caries in permanent teeth, also many parents have a misconception that cavitated primary teeth are not a big issue because the primary teeth will be replaced by the permanent teeth. As oral health care educators, we must educate students about the importance of eating healthy in order to have healthy teeth. This can be done by helping kids make the right food and beverage choices during mealtime and snack time. It is also important to demonstrate and teach them how to brush their teeth. The main function of this Service-Learning Field Project was to educate the children by increasing their knowledge of oral self-care and to help them understand that limiting their intake of sugary products will reduce their risk of cavity formation.<sup>2</sup>

## **PLANNING**

All the necessary information is gathered regarding the main problem and target audience, the program goal, measurable objective, and planning activity are needed. Prior to the implementation day, we went to school P.S.95 and met with assistant principal and class teacher, they were very nice people and scheduled for us the day and the time.

The class we visited was gifted and talented kids. There were 32 students in class and one teacher. The children were multicultural, but all would be able to speak English. The children were very talkative and sociable. We had a talk with the kids to find out if they are brushing or no their teeth or how many times a day. Our data was: 43.75% of the student (14 students) were not cleaning their teeth at all. They explained that they were lazy to do it and the parents did not encourage them to do it. 56.25% (18 students) were cleaning their teeth 1x a day during the shower time. None of the students were brushing their teeth 2x a day. Also, we found out that the majority of the children loved sugary foods, and unhealthy snacks like candies, chips, chocolates...

## **EFFECTIVE TEACHING**

Our group decided to come up with a plan to complete the following:

- Find a way to hold the children's interest
- set realistic goals that the kids would be able to accomplish
- provide learning opportunities using their senses
- and (tried) to find a method to evaluate how the kids understand the information we provide to them.

For the presentation, we decided to play in each activity. We used toy animals, teeth models. We demonstrated activities for children to model and also “tell-show-do”. At the end of our presentation, the children were all given a gift.

### **IMPLEMENTATION**

Our goal was to prevent disease through the promotion of oral health. we educated the children about how inadequate tooth brushing can lead to cavities and how good oral health maintenance can prevent cavities and other oral diseases. We showed the children the pictures of the teeth with cavities how “unhappy” they looked, and pictures with “happy” teeth and demonstrated the proper way to brush teeth. Also talked about the food which is healthy food for their teeth, and which can cause a cavity.

### **EVALUATION**

After our presentation, we asked the children questions. Each kid was able to verbalize why brushing their teeth was important, children were able to give us at least one example of how they can prevent oral diseases, the students were able to express foods that help keep their teeth healthy. They were able to demonstrate proper brushing techniques using the tools provided.

### **CONCLUSION**

In conclusion, this service-learning project was a rewarding experience in that we were able to present an oral health education program to a group of young students. Our presentation

“Healthy Teeth, Healthy Kids” was an overall success in that we were able to meet the specific goals and objectives that were established prior to the implementation of the program.

So, what was our role as a dental hygienist student?

- Research
- Educator
- Role model
- Advocate

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