

**Chung Pak Day Care Center**

**--Reinforcing Oral Health**

**Education and Positive Habits**

**to the 5-6 year-old children**

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## **Introduction:**

Dental caries (tooth decay) remains the most prevalent chronic disease in both children and adults, even though it is largely preventable. The importance of good oral hygiene should be introduced to children as early as possible. It is essential to establish a proper oral hygiene routine early in life to help ensure the development of strong and healthy teeth. Teaching children good dental habits early can help to develop a healthy smile.

In a peer-reviewed article from British Journal of School Nursing, the author stated: "...around 31% of children starting school and around a third of children aged 12 have visible tooth decay." This means there are about 3 children out of 10 would have visible tooth decay. The article discussed several factors can increase the risk of cavity, such as diet habit, poor oral hygiene and avoidance of dental checkups.

In another study done by Sitana M. Elidrissi, Sudeshni Naidoo, they stated: "Dental caries in preschool children remains a major dental public health problem and affects significant numbers of children in developed and developing countries." This study assessed the prevalence of dental caries and tooth brushing habits among 3- to 5-year-old preschool children in Khartoum State, Sudan, and described the correlation between the mean decayed, missing and filled tooth (dmft) score for primary teeth with tooth brushing and sugar consumption. The study results showed that the prevalence of dental caries was 52.4%, with a mean dmft score of 2.3. There was an increase in the dmft scores with increasing age. The frequency of children who brushed their teeth regularly at least once a day was high (83.4%), lower dmft scores were associated with starting tooth brushing earlier in life and with increased frequency of brushing per day. Eating sugar-containing food was significantly associated with dmft score. Then they concluded the

prevalence of dental caries was found to be high among 3- to 5-year-old preschool children, and caries experience increased with age. This was mostly associated with sugar consumption and poor oral hygiene, therefore this reveals the need for educational interventions to control sugar intake and improve dental hygiene.

**Assessment:**

Due to the fact that children need to be exposed to the idea of importance of oral hygiene as early as possible, our targeted population is the 5-6 year-old children. In this age, children are able to have clear speech, and understand who-what-why questions. Also, they can respond to simple commands. Therefore, it will be manageable for us to educate them. According to National Institute of Dental and Craniofacial Research, "...children from the age 2 to 11, 42% of children 2 to 11 have had dental caries in their primary teeth; 23% of them have untreated dental caries. The severity is that they have an average of 1.6 decayed primary teeth and 3.6 decayed primary surfaces."

According to the American Academy of pediatrics, many parents assume that cavities in baby teeth don't matter, because they'll be lost anyway. But that's not true. In the study "The relationship between caries in the primary dentition at 5 years of age and permanent dentition at 10 years of age – a longitudinal study", it was stated that "It is well established that the caries status in the young permanent dentition is related to the corresponding status in the primary dentition." Dental decay in primary teeth can negatively affect permanent teeth and lead to future dental problems. Therefore, oral health should be reinforced and emphasized to the children before they enter primary school because that will allow them to be familiar and easier to adapt the idea about oral hygiene programs in the future.

Since the children were 5-6 year-old, we took into account of their mixed dentition transition before planning. At about the age of 6, the first permanent molar would erupt. At this time, children should be brushing to the very back tooth thoroughly with a toothbrush and fluoride toothpaste. Making their teeth free of debris and biofilm could avoid gum inflammation and tooth decay on the teeth in the future. The published literatures revealed the need of improving oral health awareness in the children population. To prevent oral diseases, good dental knowledge and behavior changes are necessary. Therefore, we decided to improve the oral hygiene and positive dental habits to 5-6 year-old children by presenting a simple education program on dental hygiene knowledge reinforcement- tooth decay, tooth brushing, healthy diet, flossing, and dental checkup.

**Planning:**

Our goal was to provide oral health education and introduce basic dental care information to young minds. The material would cover information from how to clean their teeth by brushing and flossing to good nutrition, which are going to help them attain/maintain good oral health in order to prevent a common dental disease, caries. We thought of these topics to be helpful and useful information to be introduced at this early age in order to start creating beneficial habits that will help them to have good oral health. After contacting the center and obtaining approval to be able to use their projector, we planned to develop a simple colorful slide show power point using lots of images that will highlight our target topics, but that will also keep their attention and interest in throughout the presentation.

After each topic was explained, different types of questions or trivia would follow to reinforce and validate the information given. The purpose of the many different ways of testing

their knowledge on what was being taught was for the kids to be interactive with us and not to get bored. We also prepared a tell-show-do interactive activity with tooth brushing technique, as after demonstration was given the kids would be able to try themselves on a kid friendly plastic tooth model and large size toothbrush. We also planned to make a sample kit containing kids toothpaste, a child toothbrush and stickers to give to the children.

### **Implementation:**

Our group went to Chung Pak Day Care Center to teach approximately 20 children, ranging from 5-6 years old about proper oral hygiene by educating them the importance of brushing, flossing, healthy diet and dental check-up. In our presentation, we first introduced ourselves as dental hygiene students from City Tech to the children and teachers. Then we began asking the children basic questions about their oral hygiene regimen. We asked them questions such as: how many times and how long they have to brush teeth daily and how often they have to visit their dentist each year. We noticed that most of the children were aware about brushing twice a day, but they were not aware about flossing, healthy diet and visit the dentist.

After that, we utilized the PowerPoint presentation to start our presentation. We explained to them about tooth cavity, which is a “holes” on the tooth. If they are not brushing their teeth every day, the teeth will become “sick”, the bacteria/germs “eat away” the teeth in the mouth. We then showed the children a few pictures about cavities on the PowerPoint slides. After we introduced them about cavity, we then educated the children about brushing. We also demonstrated the circular brushing method on the typodont. The children were so excited and eager to show us what they have learned. We had each one of them demonstrate it back to us so we could correct them if needed.

After brushing section, we then started the healthy diet topic. They learned about healthy foods and unhealthy foods and their effects on their teeth. Then we made the children be involved by playing a game, where they had to figure out what foods could cause dental cavity and what foods are healthy for their teeth. They were all participating and got so excited. We continued by educating the children about the importance of flossing at least once a day before bed. We showed them why to floss and how to floss. We used the pictures on the slides as a visual aid for them to understand it better. We also explained why regular dental checkup twice a year is necessary and what the dentist can do for them.

Towards the end of the lesson, we showed them a good video that we found online to summarize the things that we have taught them. They enjoyed watching the video. Then, we quizzed the children by asking some basic questions about what they have learned from our presentation. Most children answered them correctly. Every child was able to get a dental goodie bag (includes kid toothbrush, toothpaste and some dental cartoon stickers) at the end of the whole presentation.

**Evaluation:**

Our goal as a group was to reinforce and aware the children with education on dental care. Although kids are not really aware of statistics and of caries being a prevalent disease it is important to make them aware of the negative consequences that can occur if they do not have good oral habits. Educational information was presented through a power point which included pictures, games and questions which guided us to determine whether the children had understood the information. Their responses and feedback while we questioned them showed us a positive response and reinforcement towards the children's dental education. Not only were most of the

children aware of what a cavity was but most also knew they had to brush in a circular motion. It was actually very surprising due to their age.

We used a post test evaluation asking simple questions to determine if any information was retained or understood after each topic. According to the responses we received 95% of the class understood the questions and were able to respond with a valid answer. We determined that they had understood what the importance of brushing, flossing and having a dental visit every year. Although we did not examine their oral cavities we hope they use the information and apply it to their everyday use to decrease dental caries. As a group we did accomplish what we had initially planned, the plan was to introduce or reinforce the children's knowledge on dental care. We hope that kids throughout their childhood are exposed to useful information to increase good oral habits and therefore decrease dental caries.

**Conclusion:**

We all agree that we learned a lot from doing this service learning project using the dental hygiene process of care from the public health perspective. It was a rewarding experience for us. It was wonderful to see how the children responded to our presentation positively. From the project, we learned how to engage with the children population more effectively. We found it helpful to use the colorful PowerPoint presentation and a video for the 30 minute presentation. It was effective to help the children pay attention and have fun at the same time. We could see that they enjoyed and appreciated the oral hygiene education service and the activities we provided for them. As dental hygiene students, this service project provided us with an opportunity to provide community service while gaining valuable field experience by presenting an oral health prevention activity.



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