

Keeping it Healthy



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Introduction:

Establishing good oral hygiene habits in young children is crucial in setting the tone for their oral health in the future. Oral hygiene for young children is heavily focused on the prevention of plaque accumulation, which can ultimately lead to decay and disease. Education plays a major role in substantiating this prevention. Educating children on the importance of good oral hygiene and the many different ways they can keep their teeth healthy are the building blocks of creating lifelong oral hygiene habits.

Children should be taught an oral care regimen that includes tooth brushing and flossing. This routine should consist of twice daily tooth brushing for two minutes, using a soft bristle toothbrush. Teaching effective tooth brushing techniques for plaque removal is also very important. Children benefit immensely from incorporating a “tell, show, do” method when teaching the right ways to keep their teeth clean. According to a study of Gund MP and her colleague: “circular movements from the elbow become possible, making cleaning easier and improved brushing at this age is plausibly attributable to an increased ability to perform fine motor movements”. [1] For children ages 4-5 years old the right method will be Fones, which is circular motions. Having children set a digital timer, or even use a two-minute toothbrush sand timer is an excellent way to increase awareness on how long they should be brushing their teeth. The use of a powered toothbrush, which may have a built-in two minute timer is another great option that can facilitate effective brushing and adequate duration.

Another vital aspect of maintaining healthy oral hygiene is a healthy diet. Teaching children to distinguish between healthy and unhealthy foods, is not only important for their oral health but their overall wellbeing. Diets that are mostly composed of carbohydrates, sucrose and starches are not only unhealthy but when combined with a poor oral health can lead to early

childhood caries. Studies show that “early childhood caries (ECC) is highly prevalent in poor and socially disadvantaged communities. The main risk factors for ECC are oral colonization with cariogenic bacteria, frequent consumption of sugar, lack of tooth brushing, and enamel hypoplasia.” [2] As dental professionals, educating young children and their caregivers on healthy oral hygiene choices and habits is the first step to molding a positive lifelong relationship with their oral health.

Assessment:

The target population for the Service-Learning Project is 4- to 5-year-old pre-K/kindergarten students. And the location where the project was being presented to, to that specific audience, was held at P.S. 109 in District 22. Typically, kids at this age are at high risk of neglecting daily oral hygiene, as well as being vulnerable to developing early childhood caries (ECC). The lack of education on proper oral hygiene care and consuming excessive cariogenic foods are driving factors that may exacerbate these children’s overall dental health. According to Wang X, Ma Z, Lei M, et al.: “ECC is a multifactorial disease, with common risk factors including cariogenic microorganisms, inappropriate feeding practices, frequent contact with fermentable carbohydrates, poor oral hygiene habits, and a series of social variables” [3] Furthermore, when asked how many of the students in the classroom had gone to see a dentist only a select few raised their hands, which was rather concerning. Thus, it was imperative to educate these students about dental health, caries, and nutritional foods, as a means to promote optimal conditions where their teeth can thrive before their permanent dentition develops. During certain parts of the presentation, questions were asked directly to the students about their oral home care regimens, their knowledge about caries, what foods are cariogenic/non-cariogenic, brushing technique, and etc. Further emphasis on the educational part was provided for questions

that very few students raised hands for, or knew in general; however, even for questions that the majority of the students knew/raised hands for, the information was still articulated to bolster their understanding and awareness of it. The Colgate typodonts were also used to demonstrate proper brushing of the teeth as part of the “Tell-Show-Do.” In addition, towards the end of the presentation, a poster with a “happy tooth,” which represents good, and a “sad tooth,” that represents bad, was placed on display at the front of the room. A wide variety of foods printed on paper was then placed in a bag, and one by one, the students were allowed to pick a single food to put on the poster board, assessing their knowledge on what foods can be considered as cariogenic, bad foods, or non-cariogenic, good foods.

Planning:

In order to meet the oral health needs of our targeted population of the children attending P.S 109 school, specific goals and measurable objectives must be implemented to ensure success. Our specific goal for these children is to reduce biofilm accumulation and ultimately the presence of caries by 20%. As previously mentioned, this targeted population are at a higher risk for developing caries, as they lack proper brushing techniques, and nutritional awareness. Therefore, our group will develop and introduce the “Keeping it Healthy” program, as a way to attain these goals and objectives. Relating to our assessment findings, we will gauge the knowledge of these children by asking them simple questions pertaining to how to achieve good oral health, as well as consequences of neglecting their oral health. Our activities will emphasize education on brushing, as we will separate into small groups to demonstrate proper techniques on our Colgate typodonts using the “Tell-Show-Do” method. After this activity we will revert back to our PowerPoint presentation and explain that if we don’t brush properly we will get “sugar bugs” or rather cavities, and explain in simple terms how this can affect our oral health. We will

also be implementing nutritional education through another activity, titled “Happy Tooth, Sad Tooth” which ultimately allows students to place non-cariogenic food items to the “happy tooth” category, and cariogenic food items to the “sad tooth” category. The purpose of this activity will be to educate the students on how food has an impact on our oral health, as well as to promote making better food choices in their daily lives. Our goal is that a majority of the students will be able to identify and place these foods into their proper categories, while also being engaged and having fun at the same time. As a result, we hope that their biofilm will be reduced significantly and see a caries reduction among these children by 20%. Implementing these goals and activities will ultimately lead to success within our population.

Implementation:

Walking into a classroom of 4-5 years old children full of different emotions but also excited. We all first introduced ourselves to the children one by one. We explained what our purpose was there. It happened to be career day, so the kids were very excited to learn and participate. We had a powerpoint full of pictures to present. Our main question to the class was what happens if you do not brush your teeth? As we expected to explain what sugar bugs are the class shouted “ Cavities” Weren’t we impressed and cheered them on.

We followed by continuing showing pictures and asking questions such as How many times do you brush your teeth? Do you go to the dentist? About 70% of the students knew to brush their teeth twice a day and 30% have visited the dentist. We then individually sat with a couple of the kids and guided them on how to brush their teeth using our Colgate typodonts, while brushing a student pointed out you must brush your tongue!! That was excellent. After the kids demonstrated their brushing technique we did a little activity. We had a poster with two columns: one with a happy tooth and the other side with a sad tooth. We had printed and cut out different

foods such as bananas, cheese, chicken, broccoli, pizza, donuts, and candies, we asked for some volunteers to come up to the front and stick the food to the the side whether the food belonged in the sas tooth for unhealthy or happy tooth for healthy. All the participants did very well and got them all correct. They were very engaged in the activity. At the end we handed out goodie bags to the children with toothbrushes and toothpaste. Overall the kids did very well, very engaged throughout the whole presentation. We all had a great time.

Evaluation:

The measurable objective of the “Keeping it healthy” presentation was to demonstrate to Pre-K/Kindergarten students how to brush their teeth, explain what a cavity is and also to determine what foods help keep their teeth healthy. The results for the measurable objects were very encouraging. After our presentation, 86% (or 18 of 21) students were able to properly brush their teeth compared to only 48% (10 of 21 students) before our demonstration. That is an increase of 38%. Additionally, 95% of the students were able to express foods that help keep their teeth healthy. These results confirm that our presentation was very effective in terms of the goals we sought to establish.

Conclusion:

To sum up, this service-learning project was a rewarding learning experience where we were able to present an oral health education program to a group of children who are at a stage in life where effective oral self-care is important, and the kids are not aware of it. Our presentation, “Keeping it clean” was an overall success in that we were able to meet the specific goals and objectives that were established before the implementation of the program. We fulfilled our hygienist roles as educators and created awareness not only for the students and teachers but also for the kids’ parents via the brochures that we prepared for the students to take home to their

families. This way the education process can continue at home and have a meaningful impact on the kid's oral health approach.

References

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