“Healthy Teeth, Pretty Smile!”

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Introduction

There are many factors that can affect a patient's oral health condition such as age, medication, smoking, patient's awareness of dental care and socioeconomic status. To some extent, patients can seize control of their oral health by taking the appropriate measure to obtain proper oral hygiene and by getting routine dental check-ups. It seems logical to say that parents who are well-educated about oral health will also pay greater attention to their children's teeth. Unfortunately, this is not true of all parents due to lack of resources. For example, there are parents who live in low-income communities and raise their children in an underprivileged environment. These parents cannot afford basic dental services for themselves or for their children. "Young children (aged 2-5 years), children with no health insurance, and those from lower-income and lower-educated households had decreased likelihood of a preventive dental visit as well as specific preventive services."[1] This reveals that children from the lower socioeconomic background are less likely to have access to dental resources, and are more in need for dental education and dental services. One role for dental hygienist in public health is to educate the community. Therefore, to help alleviate this problem, the focus of our service learning project was specifically centered around children who live in a lower-income community, and who are in need of preventive dental education. Some of the major goals were to increase children's awareness of oral health by introducing the oral cavity; to explain how one's choice of food and/or beverages can affect one's teeth; to discuss how caries are formed and to demonstrate the appropriate way to brush one's teeth.

Assessment

The target population for this Service Learning Field Project were 3rd grade elementary students. Usually, kids around nine years old are at mix dentition period. Kids at this age range lack adequate knowledge on oral self-care, and most of them tend to have a strong preference for sugary foods and beverages. Most of the kids time are spent on having fun instead of taking care of their teeth. During this age range, parents tend to let their child brush their teeth by themselves, and not enough time is spent to evaluate and instruct the child on how to properly brush their teeth. As oral health care educators, we must educate students about the importance of eating healthy in order to maintain good oral health. This can be done by helping kids make the right food and beverage choices during mealtime and snacktime. It is also important to demonstrate the proper tooth brushing technique to kids around this age group. It is critical for kids to maintain good oral self-care during the mixed dentition phase because the primary teeth could impact the development of the permanent teeth, especially if there are problems with the primary teeth. 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. However, the cariogenic bacteria, *S.Mutans,* is transmissible in the oral cavity.[2] Therefore, during the mixed dentition phase, the cavitated primary teeth will cause infection to the newly erupted permanent teeth which will be more prone to the cariogenic bacteria. The main function for 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.[2]

Planning

The planning portion of the community program follows the assessment phase. Now that 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 implementation day, we emailed Ms. An asking for background information regarding the location, available resources, and constraints that we should be prepared for. As mentioned above, our target audience is a group of nineteen 3rd graders in a school located in West Harlem, and we were provided a small classroom with limited resources. We were provided a tight schedule to follow as only approximately 30 minutes were allotted for the presentation due to the busy curriculum. The local leaders, two co-teachers, were not able to partake in the activity because of the limited time available to train the leaders. Nonetheless, our group believed that it was best for them to sit as part of the audience. If we had implemented a more hands-on activity with a larger audience, it would have been great to partner with the teachers, and train them to implement the program with us.

Caries is the most common chronic childhood disease that can impact a child's overall growth and function. Many children in the Harlem region of NYC are not able to receive adequate dental care due to limited access or income, which leads to neglected and untreated tooth decay.[3] Our overall goal as future dental hygienists is to prevent the disease before it gets to the point of having to treat it. This involves providing clinical services, being a consumer advocate, and overall raising awareness in the community. Our main program goals were to educate the third graders on caries and how to prevent caries by adapting a nutrient-filled diet, to teach how to appropriately brush their teeth, and to encourage them to visit the dentist regularly.

We believed this was a necessary goal for our audience because most of the 3rd graders are from a low-income neighborhood where oral hygiene and nutrition counseling may not be a priority in their households. We provided brochures for the students to take home to their parents because parents play a big role in the role of mixed dentitions.

The objective in a community program must be specific, measurable, achievable, realistic, time-oriented, and challenging. A measurable objective is that upon completion of the "Healthy Teeth, Pretty Smile" presentation, 85% of the nineteen 3rd grader students will be able to show the appropriate method of brushing and distinguish between bad foods and healthy foods prior to the 37% (or 7 of 19 students) before program. There is a total of 19 students in Ms. An's class and we had set the goal that 16 students will fulfill the objective compared to the baseline of 7 students prior to the program. We had found the baseline percentage by asking a few questions prior to the start of the presentation i.e. "who likes donuts?" and "who brushes their teeth twice a day?"

The measurable objective for the "Healthy Teeth, Pretty Smile" program was further confirmed upon students' participation during the planning activity. At the end of the presentation, each students were given a sheet of paper with images of healthy and unhealthy foods as it relates to our teeth. Using the knowledge they've learned from the presentation, each students were asked to draw an "X" on foods that are harmful for their teeth and color in those foods that are safe. At the end of the activity, the students correctly identify which foods were best or worst for their teeth.

Implementation

Third grade students were more motivated and engaged by the "Tell-Show-Do" approach. Therefore, our group tried to make our presentation more visually appealing by incorporating a lot of graphic and sounds rather than long sentences and high level vocabularies. A short YouTube clip regarding caries was played which depicts bacteria in the mouth as little monster figures that are working together to destroy the tooth. The students enjoyed this because it was explained in a clear, visualizable, and entertaining method. An implementing activity we prepared was a coloring paper full of unhealthy and healthy foods. The students were asked to draw an "X" on the bad foods and color in the healthy foods. This activity encouraged the students to choose foods that were less prone to caries so they can adapt a healthy diet. Students in the third grade are at an age where high sugary drinks and foods are easily accessible and highly appealing so we believed that introducing the effects of caries can lead them to choosing healthier options.[4] This part of the implementation process reassures us that after seeing our presentation, the children are more likely to choose healthy foods over unhealthy ones.

Evaluation

The measurable objective from the "Healthy Teeth, Pretty Smile" presentation was to demonstrate to 3rd grade students how to brush their teeth, and to determine what foods help keep their teeth healthy. The results for the measurable objects were very encouraging. After our presentation, 85% (or 16 of 19) students were able to properly brush their teeth compared to only 37% (or 7 of 19 students) prior to our demonstration. That is an increase of 130%. Additionally,

100% 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 established.

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 who are at a stage in life where effective oral self care is important. Our presentation, “Healthy Teeth, Pretty Smile,” 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. We fulfilled our hygienist roles as educators, and created awareness not only to the third graders and teachers, but also to 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.

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