Baby Steps to Happy Smiles

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Introduction:

Dental health is one of the most important factors in leading healthy lives. This rings true, especially for children who need to be informed and educated about healthy habits at a young age which will shape the way that they approach dental care in the future. According to Carole Palmer from the Tufts University School of Dental Medicine, dental caries are the most prevalent of chronic conditions for children but commonly oral healthcare is not one of the healthcare needs that are fulfilled due to many factors including unawareness and financial burden. ¹ Although it is recommended that a child's first visit to the dentist should be when their first tooth erupts, many parents do not follow this guideline. Therefore, by introducing the importance of dental care to toddlers and providing them with information for their caregivers, this can help to motivate caregivers to make dental care a priority.

According to a study by the Case Western Reserve University School of Dental Medicine, many caregivers believe that dental caries is a disease that only requires a trip to the dentist when pain is felt. ² However, by not having routine services this will greatly increase the chance of having dental caries resulting in unnecessary discomfort for the child and avoidable expenses. By assessing the knowledge of dental care of the child and providing them with activities that would enhance their learning, we can help to bring greater awareness to dental health.

Another obstacle that may impact the way a child perceives going to the dentist for the first time is the fear of the unknown. By introducing the initial dental visit using a child-friendly approach, we can also help to alleviate their fears and see going to the dentist as a pleasant experience. In a study conducted by Jacqueline M. Burgette and her colleagues, it was found that participation in an Early Head Start program, which provides education for many aspects of life

including dental care, increases dental care amongst disadvantaged young children aged 3 and under. ³ This shows that by increasing awareness of dental care to both children and their caretakers would increase the likelihood that they would seek preventative dental care in the future.

Assessment:

For the Service Learning Project, the key target population that is trying to be reached are preschool aged toddlers who are a high risk population if not properly taken care of and properly informed. Due to this reason, the focus of the project was on education for these children as well as seeing how much they knew about dental care. Our focus was on a group of toddlers at a daycare center named Joy Learning Center located in Flushing, Queens. These toddlers are at an age where they could be visiting the dentist and learning how to brush their teeth for the first time. As dental health care professionals, we have the resources and knowledge to supply these children with information and assess their familiarity with dental care. By questioning the children's knowledge of dental care, introducing them to visiting the dentist, and reviewing toothbrushing, we can help to provide these children with information that could be beneficial to their overall and future oral health.

There are many types of assessment methods that could be applied to this type of scenario. Some methods that were implemented were in the form of verbal surveys as questions and direct observation. We first asked the children if they had brushed their teeth before coming to daycare, to which the majority of the class had raised their hands indicating yes. However, when asked if they had ever visited the dentist before and only 3 to 5 out of around 20 students had raised their

hands. This allowed us to see that for many of the children, this may be their first exposure to learning about dental health from a health care professional. The use of direct observation was also conducted when showcasing toothbrushing using the "Tell-Show-Do" method. We verbally explained to the children how to brush their teeth and why it was important to do so before teaching them on typodonts.

Planning:

In order to deliver specific learning objectives to preschool aged students, the Service Learning Project must be enjoyable and entertaining. The goal of our visit is to introduce and educate children on dental health along with desensitizing the fears of the first dental visit. Therefore, the project must be clear and understandable considering the age and education level of our target population. Allowing the children to distinguish between healthy foods and unhealthy foods will be the first step in encouraging good oral hygiene. They may become impatient or distracted if the lesson plan is too tedious or long in length. In order to make this activity fun for young children, we will incorporate colorful arts and crafts, visuals, and hands-on activities. There are five parts within our lesson plan: icebreaker, demonstration, tell-show-do, hands-on activities, and home care pamphlet with a survey questionnaire. The icebreaker is the first part of the plan to get the attention of the children by asking if they had ever been to the dentist and their brushing routine to get a sense of their awareness of dental health. The introduction of the dental visit is the second part which demonstrates the dental mirror, toothbrush, bib with the chain and explorer. Going to the dentist can be scary and stressful for children so the earlier the introduction of a dental visit, the more comfortable they will be in a real dental visit. An initial preview visit can be a simple but useful tool that makes sure children are comfortable and can understand everything that is happening. "Tell-Show-Do" is a method of implementation in the next part of the plan to provide home care instruction by using the toothbrush on typodonts.

The introduction of the dental visit and good home care are both beneficial to preschool aged toddlers who have not fully developed the concepts or have the motivation for dental care. However, maintaining dental health can also be related to food selection. The fourth part of the lesson plan is an activity called "Happy Tooth vs. Sad Tooth" which involves placing different foods on a poster underneath a healthy or unhealthy tooth in order to detect the knowledge of food's impact on dental health and to have an interactive lesson for the toddlers. The children will follow along with us using the same chart and foods on worksheets. In addition, at the end of the lesson, an information pamphlet with home care instructions will be given to children as reference for their caretakers to assist them with continuing dental health education at home. One month after our presentation we will send out a survey questionnaire to caregivers to evaluate if there were any changes in their child's oral hygiene and if they were more comfortable if they had visited a dentist. As an end goal of what we plan to achieve after our project, we would like for 70% of the students to be able to correctly demonstrate the proper brushing technique with supervision from their caregivers.

Implementation:

The first step in implementing and accomplishing our goals was to introduce ourselves to the children and make them comfortable. Each one of us introduced ourselves and asked them simple and short questions like "Raise your hands if you brushed today," "Have you ever been to a dental office?," and "Did you guys brush in the morning today?" By the time we finished introducing ourselves and asked a couple of questions, the children seemed more comfortable than when we first met. There were a couple of children who participated more than the others but we tried to involve all of the children equally throughout our presentation.

After the icebreaker questions, we demonstrated how a visit to the dental office would look like. We made a poster that displayed the dental setting and also went through the motions of being a patient. One of our team members pretended to be a dental professional and another one pretended to be a child patient. We showed basic armamentarium to the children which included a bib, bib chain, mirror, explorer, and toothbrush. We demonstrated the use of each and counted each tooth (of a typodont) with the explorer, introducing it as a tooth counter, along with the children. We guided them how to brush by using a typodont individually so they could follow. Some students were very young so we also gave out a printout for their parents with instructions on how their child should brush.

We then showed them a poster with two columns: one with a happy tooth picture and the other with a sad tooth. We printed and cut out different foods such as cookies, carrots, broccoli, and candies. When presenting the poster, we asked the entire class to help us distinguish whether the food belonged in the healthy or unhealthy column. About 80% of the class participated except for some children who were somewhat wary. We encouraged and applauded all the students whenever they answered and asked them to come in the front to tape the item on the poster. They seemed to be enjoying it and we rewarded them with stickers. We also left a

printout activity of the good and bad teeth for them to do as a homework assignment. Overall, the students were following along very well and seemed to enjoy the learning process.

Evaluation:

To properly evaluate our Service Learning Project, we need to have the appropriate tools to see if it was effective. Pre-evaluation was done by verbally asking them to raise their hands if they brushed their teeth before coming to the school. Other follow up questions we asked were how often they brushed their teeth a day, and if they had been to a dental office. At the end of the presentation, the instructor was given the observation rubric to evaluate presentation skills, appeal of display, content, accuracy, and creative engaging aspect of the project.

In order to evaluate if the students grasped the idea of which foods are healthy or not, the original "good tooth bad tooth" worksheet was given as an activity after our presentation. Each student had the opportunity to glue healthy and unhealthy foods as an individual class time activity when we were no longer present. At the end of the day, we went back to the daycare and collected all the worksheets to see if the students placed the foods in the correct column. After looking over the papers, we concluded that the majority of the students were knowledgeable and correctly distinguished between the different types of foods. Out of a total 20 students, 85% of the students correctly placed all 3 healthy foods in the good tooth section and all 3 unhealthy foods in the bad tooth section. The remaining 15% had the foods in incorrect columns but this result came from the two years old group.

In order to re-evaluate our objectives, we sent out a questionnaire one month later to the caretakers of the children as a form of project evaluation of the effectiveness of our instructions

when the children had performed home care. We asked questions such as: if the children were willing to brush their teeth twice a day, if they had visited the dentist and if they were able to differentiate if foods were good or bad for their teeth. After we received the results of the questionnaire, we found that 100% of the participants had brushed their teeth twice a day but approximately 50% had visited the dentist. These results showed that our objective was reached in regards to homecare.

Unfortunately, the program did not accomplish everything that our group initially planned. For the nutrition part, we planned on giving out the worksheets to the toddlers so that they could put the cut-out pictures of the foods by themselves. However, some toddlers were too young and started crying and running around by the end of the presentation. An instructor had even said they are just starting to get to know each other. It was hectic to calm them down as they were starting to lose their patience. Therefore, we immediately adjusted our plan to let them come up and participate by using our poster. The toddlers were asked to raise their hands to come up the front to tape the photos of foods on the proper side of the nutrition table.

Conclusion:

As dental hygiene students, exposure to children ages of two to three is uncommon. Even in a clinical setting we only had experiences working with pediatric patients above the age of four. Therefore, our Service Learning Project to Joy Learning Garden was definitely stepping outside of our comfort zone. This resulted in us overestimating the attention span of children and expecting them to be able to participate individually during the good tooth bad tooth hands-on activity. However, we overcame this obstacle by altering our lesson plans. Knowing that some

concerns because we did not want to scare them but rather help each of them gain insight and eliminate fears they may have. Overall, the goal of introducing and educating the students on the first dental visit was met through our activities. Through this project, we were able to experience the public education aspect of dental hygiene and will use it to broaden our horizons of this career.

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