**New York City College Of Technology**

**DEN2413: Public Health**

**Bright Smile Care Agency**

**An agency determined to reach homes to educate parents on how they can prevent caries for brighter smiles**

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**Introduction**

The importance of a good oral hygiene regimen exceeds appearances and transcends to our health. Bad oral hygiene can lead to disease and infection that can cause irreparable damage. Although it is the responsibility of the parents to teach their children about proper oral hygiene, there are a number of factors that deter them from accomplishing this. Some of the factors include: lack of education, socio economic status, cultural influences. According to an article published on the *Plos* *One* website, researchers found that “Despite widespread acknowledgment of the importance of childhood oral health, little progress has been made to-date in the prevention of early childhood caries”. It appears that numerous efforts by professional and academic bodies focused on improving children oral health and preventing early childhood caries are futile because “ECC persists as the most common chronic childhood disease and continues to affect an increasing number of toddlers and preschoolers in the US”. Basically, oral health care isn’t taken as seriously it should be and we see the result in the rampancy of early childhood caries. One of the ways to prevent early childhood caries would be to emphasize the importance oral hygiene to the parents. This is why our group has chosen to create an organization the focuses on educating parents on the ins and outs of oral hygiene and different preventative measures that can be taken to prevent early childhood caries and other dental diseases in children.

 At the Bright smile care agency our first and most important goal is to educate. An article on NBCI website states that parents “are the main caregivers of oral health to their children during the first three years of life, even in preschool, parents are still the main supplier of children's oral health”. This is why we are focusing on educating the parents as they can pass this knowledge onto their kids and influence them to form good oral health habit at a young age. Other goals include providing resources and coming up with solutions and alternatives for parents who cannot afford dental care.

**Assessment**

For this project our target population includes elementary school students and their care givers. The population size is 39 parents of 7-year-old children. The majority of these children learn their oral health instructions from their care givers without formal oral hygiene education from professionals. When interviewing the school principal, the data collected showed that there weren’t any oral hygiene programs designed for the students which would be ideal to implement in the future to avoid dental caries in the younger population. Dental caries, also known as tooth decay, is one of the most prevalent chronic diseases for the public worldwide individuals but are mostly seen in children who are susceptible to this disease throughout their lifetime. Dental caries forms through a complex interaction over time between biofilm mediate bacteria and fermentable carbohydrates. The disease develops in both the crowns and roots of teeth and it can arise in early childhood as an aggressive tooth decay that affects the primary teeth of infants and children. Risk for caries includes physical, biological, environmental and behavior related factors such as high numbers of bacteria, inadequate salivary flow, insufficient fluoride exposure, poor oral hygiene instructions, poor diet, and low income. The status of these children oral health is based on their care givers prevention care, many of these children are receiving a high diet in sugar and starch such as milk, soda, raisins, candy, cake, fruit juices, cereals, bread etc. Furthermore, in the text it states, “The consumption of sugary foods and drinks was influenced by both the direct family environment and factors external to the family, including the school, the social environment, commercials and television, supermarkets and affordability of foods.” (Duijster, D. ,2015). Low income also affects childhood caries with the lack of nutrition and not having a regular visit to the dentist.

 What these children and care givers need is the approach of primary prevention and we can do this by recommending fluoride based protects that are affordable such as fluoridated toothpaste, we can do this by informing the care givers and children in dental hygiene care programs during school hours or outside of school hours this will help in influencing the children’s behaviors towards their dental health. Changing the care givers view in their children oral health can contribute to the decrease of caries in the children population. For example, “parental views on the influences on children oral health behaviors and their opinions on what further support is needed to promote children’s dental health.” (Duijster, D. ,2015). Therefore, by ensuring the target population having the correct oral hygiene behaviors this will help in the contribution of decrease dental caries in both children in adults as part of a public health efforts.

**Planning**

As we identified our target population, parents, we established that we need to educate them and provide them with a basic understanding of dental caries and how they develop in order to achieve our main objective which is to educate parents on how they can prevent dental caries. To do this we want to emphasize on the importance of oral hygiene and routine dental visits. Our goal is to teach parents about the modified Bass toothbrushing technique and how they should angle the toothbrush at a 45-degree angle in order for the bristles of the brush to clean the sulcus properly and have them brush for 2 minutes. Also, we want to teach parents about the different options of flossing so that they identify what works best for them. Essentially, we want to educate parents and emphasize on the importance of oral hygiene and routine dental visits so that they can instill them to their children and create brighter smiles.

In order to carry out our goals and objectives we plan on developing an oral health care program they can access through social media outlets. We provide parents with educational videos they can watch to learn about how dental caries form and how to prevent them by showing them brushing and flossing videos. We also have monthly zoom meetings where they can join to ask any questions or share any concerns. In the zoom meetings we have poll questions where we ask them whether they have implemented the techniques we’ve shared with them through our social media outlets in order to track those who attended and if we have made a change in their daily routines so that we can make any adjustments if necessary. We understand that not everyone has access to 6-month dental cleanings which is why we decided to provide parents with cheaper alternatives such as instructional facilities.

**Implementation**

To meet the proposed program's set goals and objectives, it is essential to set out various materials, tools, and distinct methods to channel every activity as required. The whole process would require appropriate and thorough training of the targeted population by using the tools and materials to ensure the program is conducted smoothly.

​ Since the program will be conducted online, the needed materials include an accessible social media platform that all parents can easily use. Therefore, the twiducate is the most appropriate for this program. All the parents enrolled in the program will be provided with a code to log in. This will ensure that privacy is maintained because only those with the code can access the information posted. Questionnaires will also be developed that contain a question to be used during zoom sessions to assess each parent's progress. Therefore, each parent must be informed of the particular time when zooming will be conducted so that no one misses out.

​ Brochures and videos are also necessary tools that will be used during the program to enhance the learning processes. The Brochures will contain pictures that demonstrate the angle and mode of brushing and flossing their teeth. Besides, videos will be sent to each parent to learn how the entire process should be carried out.

​To ensure the program is coordinated efficiently, a central place will be identified where the selected dentist and dental hygienist will meet to initiate the teaching processes. The importance of initiating the process in the central process is to ensure the specialists conduct an in-depth consultation on what should be presented to the targeted population. In this way, the goals and objectives of the program will be met.

**Evaluation**

 To evaluate our study we used educational videos, questioners, zoom meetings and poll questions. As part of research disclosing solution was mailed to each parent with demonstrative instruction this activity will compare pre and post evaluating PI score. We have asked the parents to document the initial PI score before they begin the studying session. To ensure that parents have gained knowledge from this study we have conducted pre and post evaluation survey asking how caries are formed, which foods are risk factors, proper home-care and how often they visit dental office for routine cleaning. To measure clinical effectiveness, we have asked parents to apply disclosing solution once again with q-tip on the surface of the teeth to determine where plaque is not removed and score it out.

 For clinical portion of activity, we have collected the initial and final PI score and the result has come back with substantial contrast scores. 80% of participants plaque score has decreased significantly, the rest still had made progress but less. Post survey data collected showed 90% of parents had learned risk factors of caries and alternative foods and most importantly how oral home-care can prevent caries. Parents were able to implement correct brushing techniques in their children’s morning and nightly routine.

 To sum everything up that has been stated so far, most parents have accomplished the goals that the program has set at the beginning of planning. This actively demonstrated that the project was successful on accomplishing on educating parents on importance of oral care and how home-care and routine prophylaxis is effective on preventing caries.

**Conclusion**

The importance of oral health cannot be emphasized enough. The role that parents play in providing their children with good oral care at the beginning stages of their lives is also essential to the child’s quality of life. Caries are avoidable and as dental hygienists we believe in prevention rather than repairing and maintaining, that is why we choose to educate parents so that the can teach their young ones and help them develop a good oral hygiene routine that can be maintained into adulthood. It is our duty to educate the public on the importance of oral health, while being sympathetic to different economic status and different cultural beliefs.

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