**Oral Health Education and Positive Habits**

**in the Elderly Community**



Public Health Project

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Professor Lam

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**Aliza Aminov**

**Irina Kondra**

**Anastasia Fedoseeva**

**Ulvie Shkolyar**

**Nadia Rizik**

**Ayman Mousa**

**INTRODUCTION**

The number of elderly Americans surpassed 35 million in 2000, and by 2030 twenty percent of Americans will be 65 or older.1 Additionally, ethnic/cultural minorities account for a larger percentage of the elderly population, and individuals aged 85 and older are the fastest growing segment of the elderly population. 1 In 2003, Oral Health America released its national grading report emphasizing that the oral health of older Americans is in a “state of decay”.2 Every state received failing or near failing grades in all categories of dental services for older adults, especially preventive and periodontal care.3,4A recent study by the Centers for Disease Control and Prevention (CDC) reported that only fifteen percent of these elderly had satisfactory oral health.

Oral health is essential to overall health. Good oral health improves a person’s ability to speak, smile, smell, taste, chew, swallow, and make facial expressions to show feelings and emotions.However, oral diseases, from cavities to oral cancer, cause significant pain and disability for many Americans, especially for elderlies. Many elderly people are unaware of the necessity of proper oral care and that there is a oral-systemic connection. We wanted to make a difference in the lives of elderly people and contribute to our community and therefore chose geriatric population for our project.  We began by contacting a few nursing homes and rehabilitation centers. The first one to welcome us was Aqua Health Rehabilitation Center. Once we scheduled the presentation we began researching the topic and preparing our visual aids for presentation,  such as powerpoint and brochures. After that we chose and purchased contents for goodie bags that we planned to hand out after our presentation.

**ASSESSMENT**

The targeted population for our service learning project was the Russian geriatric community in Brooklyn, New York. The geriatric adults we visited at the Aqua Health Rehabilitation Center were all between the ages of sixty-five and eight-five and almost all were of Russian descent. They all came from low to middle income families and were all dependent on the government for welfare, medicare, and SSI. The elderly at this rehabilitation center have mild physical limitations such as difficulty walking.  However they are not bound to a wheelchair or disabled. They come to this center for a couple of hours a day to do some physical exercises and socialize with others.

Before the start of our presentation, we took a quick survey to assess the knowledge of the participating elderly about their own oral health. All of the fifteen elderly adults were aware of their oral health to some extent.  All of them have seen a dentist within the last five years, for reasons such as root canals, implants, dentures. However, almost all of the participants reported they do not receive regular dental cleanings at their dental offices, nor do their offices even have dental hygienists to properly teach homecare and schedule frequent recare appointments. The participants reported they go to a dental office that usually has a waiting room full of people waiting, and their dentist does not spend any time on any home care instructions.

Additionally, the participants told us about their current oral state. Three of them had implants done within the last five years. Two of the participants wear full dentures and two wear partial dentures. Seven of the participants have bridges and crowns. Three admitted to missing several teeth without having any prosthetics or implants in place. More than half said they suffer from dry mouth, most likely due to their long list of  medications. One aspect they all had in common was the fact that none of them knew how to properly care for their teeth, bridges, crowns, implants, and dentures.

The population of people we visited at the Aqua Health Rehabilitation Center are mostly in need of proper home care instruction and frequent dental cleaning appointments at least two times a year. Though we cannot help with the frequent visits to the dentist, we are able to provide home care instruction, which will benefit their oral health in the long run. Our goal was to teach them how to floss their natural teeth, floss under bridges, crowns and implants, and lastly how to properly clean their dentures. Proper home care is first step to prevention of acquiring oral diseases or stopping further progression of oral disease.

The literature coincides with our findings regarding the oral health status and needs of the elderly population. The journal “Improving oral health for older people in the home care setting: An exploratory implementation study” states that the elderly population of our generation is in a “state of decay” meaning their oral  health is slowly deteriorating due to the lack of knowledge of proper oral home care and regular visits to a dental professional.

**PLANNING**

Certain health concerns earn our full attention, especially the importance of oral health for geriatric population. In order to achieve oral health, it was necessary to know a few aspects of old age.  Based on the assessment findings, those five patients with partial or full dentures were experiencing denture discomfort, pain, and eating significantly less or eating softer foods. Dental status is considered to be an essential contributing factor to health and adequate nutrition in elderly. Missing dentition and ill-fitting dentures cause difficulty in chewing and perception of the taste of foods. Our goal was  to educate elderly patients in healthy eating habits, and to screen in the early stages of nutritional problems when such interventions can be most valuable and effective. In addition, the goal is to explain valuable information to patients that having loose painful teeth or ill-fitting dentures may result in a reduced desire or ability to eat; and to improve all these factors we encouraged those patients to visit their dentist more frequently for denture adjustment and relining.  Education about properly taking care of dentures is also an important recommendation for patients.

Based on the assessment findings, fifty percent of the participants have experienced xerostomia. It may correlate with the factor that all of our participants are taking systemic medications. The best way to treat dry mouth depends on what is causing it. Our goal was to educate patients how to relieve dry mouth temporarily, but for the best long-term dry mouth remedy, we need to address it’s cause. The cause could be a medication or another condition. Medications are one of the most common causes of dry mouth.  To promote long-term relief from patient’s dry mouth, our recommendation was addressed to seek help from patient’s primary doctors in changing medication or its dosage.

Ten participants were asked how to take care implants and bridges and majority did not provide us the correct answer. Educating patients about maintenance of dental implants and dental bridges and using several different home care devices is our goal. Based on findings from our quick surveys, only one third of participants visit their dentists for regular hygiene checkups. We have to reinforce that all participants who have no natural teeth and wear full dentures should have their mouth examined annually for signs of gum disease and oral cancer. It is also important for our participants to see a dental care professional regularly, because he or she can provide even more oral care recommendations and tips based on the patient’s individual needs and abilities.

**IMPLEMENTATION**

The target population of this project is elderly people of Russian origin who mostly were born before the 1950s. For the distinct population segment, regular trips to a dentist are not common. Older populations have poor oral hygiene and higher prevalence of teeth decay, periodontal and gum disease. Therefore, removable complete and partial dental prostheses are used to replace missing teeth in the completely or partially edentulous patient.

Based on survey conducted prior to the presentation, more than half of the participants have implants and partial or complete dentures, and the other half have bridges and crowns.

In connection with this, our goals and objectives were:

- educate and inform the participants about oral health, its connection to overall health and specific considerations regarding older population;

- teach participants to maintain good oral hygiene by providing optimal homecare;

- educate participants about the need to take care of bridges, crowns, partial/complete dentures and/or implants;

- upon completing this presentation, participants will be able to maintain proper dental

hygiene.

Before the educational program implementation, we conducted the baseline examination in participated group. During the educational program a thirty minute Powerpoint presentation about the importance of oral hygiene and common dental health problems was shown. The participants were informed of the necessity of tooth brushing and flossing. Besides the general information, given through lecture, participants received specific tooth brushing and flossing instructions regarding existing dental prostheses.

Particular attention was paid to the problem of dry mouth (xerostomia) since most of the participants suffers from this condition. They were given recommendations to consult with their general practitioner to address the cause of their xerostomia issues. We also recommended the use of Biotene oral rinse to relieve dry mouth temporarily.

In order to improve face-to-face communication with the chosen group of elderly adults we used visual aids, such as a Power Point presentation and brochures, to help clarify and reinforce comprehension of key points. For people who do not understand English well, we fortunately had three Russian speaking students who were able to translate as we went along with the presentation.

In addition, each member of our team professionally presented home oral hygiene instructions and provided comprehensive instructions for using the given samples from the goody bag. Each participant received a soft toothbrush, samples of “Super floss”, “Glide” dental floss, “Biotene” mouthrinse, “Sensodyne” toothpaste and “Polydent” dissolvable tablets. Participants showed remarkable interest and full understanding of the presentation. They were all in awe because they were never taught by a oral health care professional how to properly take care of their mouth. All the participants appreciated the received  information and were grateful for the knowledge gained.

At the end of the presentation all participants were given a brochure with a concise summary of the lecture delivered and their designated goody bag. The project team answered all the questions from the audience at the end of the presentation.

**EVALUATION**

    When evaluating the process of delivering important information about oral health, we have to ensure that it is delivered in such a way that the recipient is motivated to use that information for the protection or advancement of his own, his family’s or his community’s health. In other words, the recipient should be able to understand and use the information to promote his oral health.

In our project, we had three main tools that we used to properly deliver good oral hygiene and dental care and also evaluate the success of our group project. The first tool is informing people that a healthy mouth results in a healthy body and vice versa. My team members provided the information using simple basic terms so the audience can keep track of our topic. For example, after the introduction of our project, the recipients started communicating with the presenters and had clear understanding of how the mouth cannot be disconnected from the rest of the body as it is innervated by the same nerves and same blood flow.

    The second tool we used was motivating people. We all know that behavioral change is very challenging. There is no learning without motivation, therefore, it’s very important to motivate someone who just learned a new skill and still adapting to it. Cleaning around implants for example can be very challenging in elderly or population with disability; however, our team members were able to provide different alternatives and different products to aid this population to improve their oral health.  Also, we dispensed goody bags with many supplies such as brushes, toothpaste and different varieties of floss.

    The third tool we used was guiding into action. My team did a little demonstration on how to use the use the floss and how to properly take care of implants. When the audience started interacting with our work that indicated that our service or project is aiming to success and has an effect. Also, when the presenter started talking about how good oral hygiene habits will keep away most of the dental problems and can save you from toothaches and costly dental treatments. Then one of the audience interrupted saying, “Prevention is always better than cure”. So the main constituents of our oral health education project that helped us accomplish our goals were: the auditory aids (presentation), visual aids (goody bags), and the combination of audio-visual aids (demonstration).

At the end of our presentation, we were able to answer and address their oral health concerns and increase their awareness regarding the importance of oral hygiene and their overall well-being. My team intended to provide an optimum oral health care facilities that people will be able to use it and implement it in their daily life. Lastly, the tools we used in our project were very effective in the achievement of changes in the oral health and lifestyles of the elderly community we presented to. We are sure the information we provided in our topic will be permanent and enduring.

**CONCLUSION**

    Our target population for this service learning project was the geriatric community above the age of 65.  It can be difficult to teach new things and ideas to a population that is pretty much stuck in their ways. The people we presented to have had the same ideals about their dental health for many years. Fortunately for us, the geriatric community we presented to was interested in learning new ways to improve their oral health.  By starting the process with a quick survey, we were able to get a good idea of the type of conditions these people were dealing with on a daily bases.  The survey also made it more of a personal experience for the participants; we were not just speaking in general terms.  The majority of the participants are in need of referrals with their general physicians and general dentist for check ups and maintenance.

The powerpoint itself was informative and educational, but the hands on demonstrations deemed more effective.  Using the Tell-Show-Do approach seemed to really have an impact on the information being absorbed.  All of the participants in the geriatric population that we presented to had some type of issue with their oral health.  Whether it was missing teeth, prosthetic teeth, or xerostomia.  By providing hands on demonstrations we were able to show them how to properly clean and maintain their mouth.  Providing them with information, demonstrations, and educational tools gave them new knowledge on how to properly care for their specific oral health conditions.

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