DENVER'S GREAT KIDS HEAD START:

Oral Health Promotion Project for Teaching Staff

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Submitted to

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in partial fulfillment of the requirements for NURS4207

March 13, 2009
Introduction

Head Start is a program that supplies grant money to local public and private agencies in order to provide comprehensive child development services to economically disadvantaged children ages 3 to 5 years. Success in school and life is dependant on early childhood social and cognitive growth and development. Head Start promotes healthy development by providing early education, medical, dental, and nutritional services to children of families living at or below 130% of the federal poverty level (Office of Head Start [OHS], 2008).

Children living below the poverty line face a disproportionate number of community health risk factors. These include low birth-weight, premature birth, respiratory illnesses related to second-hand smoke, lead poisoning, dental caries, and obesity (Kolbe & Griffin, 2008). These are often exacerbated by a lack of access to health care, health insurance, and primary care physicians. In the United States, the most common chronic infectious disease in children is tooth decay. Tooth decay disproportionally affects children living in poverty, some minority groups, disabled children, and children living with HIV. Children without medical insurance receive dental care 2.5 times less than children with insurance and are twice as likely to suffer from tooth decay. Tooth decay that goes untreated can cause numerous health issues, including pain and infections that can lead to problems with eating, talking, playing, and learning (U.S. Department of Health and Human Services [DHHS], 2004).

In recent years oral health has become nationally recognized by many public health organizations as a “vital component of health” (Casamassimo & Holt (Eds.), 2004, pg. 2) due to the negative impact that poor oral health can have on growth and development. It is important to promote oral health in the Head Start population because children of low socioeconomic status are at the greatest risk of suffering from the negative affects of poor oral health. Our intervention is to educate the nursing staff of Denver’s Great Kids Head Start (DGKHS) about how to teach the contents of a dental nutrition bin using motivational interviewing techniques to Head Start teachers, parents, and children. The contents of the bin focus on
preparing kids for what to expect when they go to the dentist, proper nutrition for healthy teeth, and dispelling common misconceptions about oral health practices in early childhood.

**Population**

Of the 7,198 children ages 5 and under estimated to be living below the poverty level in Denver county during 2008, DGKHS provided services to 1,467 children ages 3 to 5 (Kolbe & Griffin, 2008). Of these 1,467 children, 640 were three-year olds, 822 were four-year olds, and 5 were 5 year olds. DGKHS serves a racially and ethnically diverse population that is 62.17% Hispanic/Latino and 37.83% non-Hispanic/non-Latino of which 40.49% are White, 25.56% are African-American, and 0.06% are Bi- or Multi-Racial. The remaining 33.89% are of American Indian, Alaskan Native, Asian, Native Hawaiian, or Pacific Island descent. English is the primary language in 53.17% of DGKHS households, whereas 43.29% of DGKHS children come from homes whose primary language is Spanish (Head Start Program Information Report [PIR], 2008). At the start of the 2007-2008 DGKHS program year approximately 85% (1248 out of 1467) of the children had some form of health insurance, 78.36% had Medicaid, 11.7% had private insurance, 5.93% had the State Child Heath Plan Plus (CHIP) insurance, the remaining 4.01% had another form of State funded insurance. By the end of the 2007-2008 program year 93.25% of DGKHS children had insurance.

**Health Issue**

One of the many health issues affecting the Denver’s Great Kids Head Start population is the lack of proper oral health care. Unfortunately, this is a prevalent problem not only affecting the children of Denver and Colorado, but children nationwide. Nationally, dental decay is five times more prevalent than asthma and seven times more prevalent than hay fever (Colorado Department of Public Health and Environment, 2004). In Colorado, the number of children with dental problems is staggering. A 2004 assessment of 4,000 kindergarten and third-grade children in Colorado found that 46% of kindergartners and 57% of third-graders have experience with dental decay. Furthermore, 27% of kindergartners and 26%
of third-graders have untreated cavities. Of these children with untreated dental decay, most are from low-income populations like those of Head Start. Of this population, the highest prevalence of untreated decay and experience with dental cavities is among the Hispanic population when compared to the White population (Colorado Department of Public Health and Environment). Specifically for Denver Head Start, 4 in 10 of these children have dental needs, which is a 33% increase from a couple years ago (The Mayor’s Office for Education and Children, 2007).

It is very important to address this lack of dental health care, because oral health problems greatly affect children, and if untreated, can continue to affect them as adults. The oral health problems most commonly seen in children are dental caries, malocclusion, oral trauma, loose teeth and gingival disease (Holt & Kraft, 2003). One of the ways these oral health problems can affect children is through their learning. Children with dental pain score worse on tests than children without pain, they are unable to concentrate on schoolwork, and they have an increase in school absences. Dental pain also leads to problems with eating, which in turn affects a child’s nutrition, because they are only able to eat certain foods. When children have nutritional deficiencies, there are detrimental effects on their cognitive development, their ability to perform complex tasks, and their behavior (Holt & Kraft). Therefore, oral health problems can have significant detrimental effects on a child’s life, and these effects can reach into adulthood.

Poor oral health habits and untreated dental problems that occur during childhood will lead to continued problems as adults. New research shows that there is a link between chronic oral infections and premature births, low-birth weights, strokes, and lung and heart diseases. Not only does poor oral health lead to serious diseases, but it can also affect a person’s work, which affects their economic status, and also puts a burden on society in terms of productivity lost. Oral pain in adults leads to poor nutrition, sleep deprivation, and even depression. Lastly, oral health problems can lead to problems with communication, social relations, and intimacy (US Dept of Health and Human Services, 2000). The prevalence of poor oral
health in the Head Start population mixed with its detrimental effects to the children and later as adults, makes this a significant health risk that needs to be rectified.

**Intervention**

Until recently, there was not a great deal of emphasis placed upon the oral health of children. Prior to this, it was solely the dentist’s responsibility to provide the necessary oral screenings on children. More recent studies have shown the increased efficacy of a more interdisciplinary approach, combing the efforts of both primary care physicians and dentists (Graham, 2003). In addition to broadening the scope of provider responsibility, other methods such as water fluoridation, professionally applied fluoride varnishes, and self-administered fluorides have proven effective in the prevention of dental caries. The use of fluoridated water has proven to be the most cost effective means of preventing dental caries, with an estimated lifetime cost per person equaling less than the cost of one dental restoration. Professionally applied topical fluorides, including gels, foams, rinses, and varnishes, have been shown to reduce the number of caries by up to 63% and self-administered fluorides, including supplements and toothpaste, have shown a reduction rate of up to 72% (American Academy of Pediatrics, 2008).

Incorporating health topics into classroom curriculums has been a longtime method of increasing the health knowledge of children. Since most of school-aged children’s days are spent in the classroom, it is an ideal forum to use for health education, including oral health. In a study conducted in Ireland in 2002, 32 randomly chosen schools were used to evaluate dental health knowledge and behavior among children ages 7 to 12. The study focused on key areas of oral health including: frequency and duration of brushing, amount and type of toothpaste, when to replace a toothbrush, time of day to brush, who taught the children how to brush, the effect of sweet foods on teeth, and their experience with a dentist (Friel, 2002). The study combined dental health nursing interventions with mass media oral health messages. The nursing interventions focused on interactive talk around the key areas, included a 6-minute video on oral health, and incorporated posters and flyers. The nurses also gave a pre-test immediately before their
presentation, and then a post-test 8 weeks after the end of the program. The results of the study showed a significant increase in the number of children who agreed sweet foods and drinks were harmful to their teeth, and an overall positive change in both dental health knowledge and behaviors (Friel, 2002).

While there are some major differences between this study and our intervention, such as the cultural environment and the ages of the children involved, the basic structure is quite similar to that of the dental bin usage in the Head Start program. The talking points of the dental bin are similar to the key issues addressed in the Ireland study. Also, the nurses’ presentation utilizes both discussion type teaching and the use of media education (i.e. DVD) like that of our dental bin presentation. In general, this study provides great support of the methods being used in the dental bin presentation and predicts similar positive results.

When we conducted ourbin presentation with Head Start nurses, a major concern of theirs was ensuring the information is available in both Spanish and English. With such a large Spanish speaking population comprising Head Start, it would be negligent not to address the language barriers of the target population. There is also a large African American population within Head Start classrooms, which deserves cultural consideration as well. Both Hispanic and African American families tend to focus much more on extended family, rather than just the nuclear family. This means that many more people may be providing care to the children, thus requiring these family members to be educated on nutritional and behavioral requirements of oral health, in addition to biological parents. Another consideration is that Hispanic and African American mothers have frequently been shown to put their infants to bed with bottles of formula, juice, soda, or milk and to dip pacifiers in honey increasing the child’s risk of dental caries (Andrews, 2008).

**Interviews**

In an interview with S.A., a young mother of two waiting in line for food stamps, we were impressed that she is quite knowledgeable regarding the oral health of her children. She says she makes
sure her children brush their teeth twice a day, and they all visit the dentist every 6 months. She was surprised to find out at their last visit that her 4-year-old should be flossing. She thought he was too young, but said she would begin helping him to floss his teeth now that she knows he should be. She admitted that her children have access to sugary food in their home, but states that she regulates how often they are allowed to eat it.

J.G., the RN Case Manager for the Connections for Kids Clinic, a clinic specifically for children in the Denver foster care system, is very informative regarding available resources for parents and children to maintain their oral health. She said that anyone in need could come to the Eastside Heath Clinic and get a free toothbrush and/or toothpaste, as well as visit the dental office located within the clinic (based on financial need). The children within the foster care system are closely monitored for oral issues and are required to visit a dentist every 6 months. Unfortunately, without government monitoring, many children go without regular dental care.

We interviewed a Spanish speaking Head Start teacher, G.P., who works at one of the Catholic Charities Head Start locations to get a clearer idea of the teachers’ role in promoting healthy teeth. When asked what role G.P. felt that she played in improving the oral health of Head Start children, she stated she primarily instructed the children how and when to brush their teeth. She also tries to teach them why sugar is unhealthy and states that she does not allow gum or candy in the classroom. She thinks the lack of dental care is a problem for her students because she frequently sees children who require extensive dental treatment even at very young ages. When asked about her role in oral health education for parents, she stated that this was primarily the nurses’ role, not hers. She notices, though, that her students are very good at brushing their teeth at home and they even tell their parents that sweets are bad. She stated that the parents’ lack of education is her students’ biggest barrier to having healthy teeth, because they frequently know little to nothing about oral health before their children enter Head Start.
Assessment and Theoretical Framework

After reading articles on the prevalence of dental caries and the lack of preventative dental care among families living in poverty, it was clear that just being accepted to the Head Start program is a huge asset for children ages 3 to 5 living below the poverty line. DGKHS not only provides free tooth brushes, tooth paste, dental screenings and oral health education but they also provide up to two healthy meals a day, do not allow candy in the classroom, and teach children to brush their teeth after each meal. Currently about 83% of Head Start children receive regular dental services, which is a huge improvement from the national average of children ages 2 to 17 living below the poverty line, who only receive dental care approximately 69% of the time (Kolbe & Griffin, 2008).

From our observation of Head Start classrooms it is clear that teachers who emphasized oral health are very successful at getting their students to brush their teeth after each meal. Children were even involved in educating their parents about the need to brush their teeth and eat fewer sweets. Much of this has to do with the developmental stage of children ages 3 to 5, who are eager learners and very responsive to praise. Children at this age like to mimic adults, do really well with consistency and routine, and take pride in accomplishing tasks. This makes them the ideal candidates for learning healthy habits.

It is obvious that the parents who go through the effort of getting their kids into the Head Start program really want a better life for their children and often recognize the importance of preschool in good social development. This is a huge asset for these children because their parents are much more likely to change unhealthy behaviors in order to give their children a better and healthier life.

From our literature review and our interviews, we have found that the DGKHS students need more education and healthier role models (ie. their parents) in order to have better oral health care. As previously stated in our literature review, education regarding dental care in the classroom helps promote better oral health. Paula Pierce, the Head Start nutrition consultant, and Gloria Richardson, the health
coordinator at Head Start, agree that the children of Head Start need more education, which is the reason for the creation of the dental bin. Not only do the children need more oral health education, but their parents do as well. In fact, G.P. stated in our interview that one of the greatest barriers to health care in the DGKHS population is the lack of oral health education among the parents. Although our interview of S.A. at the food stamp office shows she was knowledgeable on several oral health topics, she still did not know the importance of flossing. Therefore, more education is needed of the parents in order to be healthy role models for their children.

**Behavioral Change Model**

Our educational intervention of teaching the dental bin nurses who in turn will teach teachers and parents can be appropriately placed in the stages of change behavioral model. This model states that people progress through five stages when changing behaviors. The first stage is the precontemplation stage. The people in this stage may be unaware they have a problem; therefore, there is no intent to change. The contemplation stage is the next stage where people are aware they have a problem, and they want to change their behavior, but they have not done so yet. In the preparation stage, individuals are planning on taking action in the next month, and they have unsuccessfully tried to change their behavior in the last year. Next is the action stage where individuals modify their behavior in order to conquer their problem. Finally, the maintenance stage is where people try to avoid relapse of their problem behavior (Prochaska, Diclemente & Norcross, 1992). When planning an intervention it is important to know which stage of change your target audience is at, and which interventions are appropriate for that stage.

Since our target audience will eventually be parents who are unaware of the importance of good oral health, they will be in the precontemplation or contemplation stage. In this stage, individuals will be in the behavioral process of consciousness raising, dramatic relief, and environmental reevaluation. Appropriate interventions for these processes include giving the individuals information about the problem, which we are presently doing with the bin. Through documentaries, like the video present in the bin,
individuals will learn to assess how their problem affects their environment. It is also important to have individuals express their feelings about their problem during this stage, which they will be encouraged to do with motivational interviewing (Prochaska, DiClemente & Norcross, 1992). The use of the dental bin and its contents as well as motivational interviewing are appropriate interventions for parents during their current stage of behavior change. Hopefully, these interventions will help them eventually progress to the action stage.

**Levels of Prevention**

When addressing a public health issue within a community, the main goal is to identify the problem, determine causal factors contributing to the problem, and implement interventions to either stop the problem, or at least slow its progression. In public health, three levels of prevention are used as a framework for implementing interventions. The first level is primary prevention, or interventions that promote health and prevent the occurrence of disease, injury, or disabilities (Stanhope & Lancaster, 2006). This level targets individuals or groups that are at risk for disease, but currently have no signs or symptoms. The introduction of the oral health bin and education for nurses, teachers, parents, and students on aspects of oral health such as proper brushing techniques, use of fluoridated toothpaste, foods to avoid, and guidelines for dentist visits are all examples of primary prevention.

The next level of prevention is secondary, which focuses on early detection or diagnosis of disease with the hope that treatment will be more successful if begun early. Ensuring regular dentist visits by the students in Head Start helps to identify problems early, before they cause long-term damage for the child. Parents being proactive in the oral health of their children also helps to detect problems early. We hope to utilize motivational interviewing to better engage parents in their child’s dental health by taking advantage of preventative measures, rather than waiting for painful symptoms to present before taking their child in for treatment. Explaining to parents that it is more costly to treat their children once problems have occurred, as opposed to maintaining health, could also help increase dentist visits.
The last level of prevention is tertiary, which aims to limit the effects of a disease or condition and provide rehabilitation and treatment as needed. Getting treatment for gum disease and making sure cavities are filled in a timely fashion are some examples of tertiary prevention regarding the oral health of Head Start Students. Educating the parents on the importance of treatment is a critical aspect of successful tertiary prevention.

**Spectrum of Prevention**

The spectrum of prevention is an important tool that was developed to address the need for a systematic and comprehensive approach to injury prevention. It involves six interrelated levels of action: 1) enhancing individual knowledge and skills in order increase their ability to prevent injury or illness, 2) promoting safety by educating groups of people in the community, 3) educating providers who can disseminate information to others, 4) fostering coalitions and networks between groups with common interests to reach a broader number of people, 5) changing organizational practices to include policies that increase health and safety, and 6) influencing policy and legislation to impact outcomes (Cohen & Swift, 1999).

The first level of the spectrum will be addressed when the bin is used to teach children when and how to properly care for their teeth. This will help children form good oral hygiene habits early in life and will give them the tools they need to prevent tooth decay and cavities. The bin will eventually be used in parent meetings to teach families about good oral health, which addresses the second level of prevention by promoting community education. Our intervention primarily addresses the third level in the spectrum of prevention by educating providers about the role that good oral health plays in the healthy growth and development of children so that they can disseminate this information to other nurses, teachers, parents, and children.

The fourth level of the spectrum is addressed by the partnership between the University of Colorado Health Sciences College of Nursing and DGKHS, who worked together on this project to improve
the dental health of the Head Start children. Level five is extremely important because if Head Start had not actively changed their organizational practices to mandate better oral health outcomes the bin never would have been created in the first place. Level six has not been addressed yet but if there is a measurable improvement in oral health outcomes after implementing projects such as the dental health bin, which are costly to create, it might be possible to influence legislation in order to get additional funding for more oral health education in Head Start.

**Purpose of the Intervention**

The goal of our intervention is for the children of Head Start to have healthier teeth so they can get adequate nutrition, talk properly, make room for their adult teeth, and live a pain free childhood. The seven main objectives we focus on in our project are:

1) To implement more effective and consistent oral health education at Head Start
2) For the nurses to feel confident presenting the information in the dental health bin to others
3) To reinforce the concepts of motivational interviewing to the nursing staff
4) To reinforce the Head Start dental nutrition talking points to Head Start staff
5) This includes an increased awareness of the risks of poor oral health in childhood
6) To evaluate the effectiveness of the bin presentation through a pre- and posttest
7) To increase the number of children who return for follow-up visits to the dentist after receiving their dental screening from Head Start staff

We had four main process outcomes for our project. The first one was to educate the DGKHS nursing staff that attended the February 20, 2009 health team meeting about the dental nutrition bin and have them distribute the bin to Head Start classrooms. The second one was to obtain feedback from the nurses so that we could incorporate their ideas into future presentations. The third outcome was to assess the nurses’ knowledge of the Head Start oral health care talking points prior to receiving the intervention so that any knowledge gaps could be addressed in subsequent presentations. The fourth was for nurses to
use motivational interviewing techniques in their interactions with parents to help change parents attitudes toward dental health. The measurable health outcome for our goal is to reduce the number of children in Head Start who are diagnosed as needing treatment for dental problems, more specifically dental caries.

**Description**

Our intervention is to teach nurses about the contents of a dental bin, which they will in turn teach to teachers who will teach the parents and children with the hope of improving the Head Start children’s oral health. Our lesson, which is presented in Appendix A, was taught to 15 Head Start nurses at the Eastside Health Clinic on February 20, 2009. The presentation lasted approximately 45 minutes. We began with a pretest (See Appendix B) to test the nurses’ knowledge of oral health. This was followed by an explanation of the questions presented on the pretest. Since our audience was nurses, they answered the questions with ease, but they agreed that these are excellent questions to ask teachers and nurses. Our group then presented the contents of the dental bin (See Appendix E) while using “talking points” that the Head Start nutrition consultant, Paula Pierce, and the health coordinator, Gloria Richardson, want to be used. We then finished with a review of motivational interviewing, because this is the preferred technique to be used when teaching the dental bin to teachers and parents. The nurses felt this was an excellent presentation, and only asked us to change one question on our pretest. They asked us to send the pretest out to the nurses so they could hand it out to teachers. Follow-up will be needed to evaluate the results of the pretest with the teachers.

The literature shows that our use of the dental bin as an educational tool is the most effective way to promote oral health care. Our use of talking points, discussion-type teaching, and media education has been shown to promote good oral health. In the Ireland study mentioned in our review of the literature, a post-test given eight weeks after the end of the program showed that their intervention was effective. Therefore, it is important to do a post-test of what was learned from the dental bin in a few months in order to see if our intervention is as equally effective.
Evaluation

Due to the time constraints of the course, we are unable to see the intervention through to the evaluation stage ourselves, therefore, the following is a description of what we would recommend as an evaluation plan of our intervention. After the teachers are given the bin and taught how to use its contents by the Head Start nurses, there should be a follow-up meeting to ensure their compliance with using the bin and their understanding of the material. They should also be asked how they have been using the bin in the classroom, including the use of motivational interviewing techniques, to compare to the methods used by different teachers. Ideally, the bin would be given to half of the Head Start classrooms, with the other half acting as a control group. At the beginning of the school year, all the students would be assessed and screened for presence of caries. During the school year, the bin would be used in half the classrooms. At the end of the school year, the students who were exposed to the bin would be compared to the students who did not receive the bin. This will allow us to determine whether or not the bin and associated materials influenced parents to bring their children in more frequently for treatment following the dental screening by the DGKHS staff.

In reality, it is not possible for only half the classrooms to receive the potentially beneficial effects of the bin; therefore, it is important to track the number of teachers using the bin, as well as the number of classrooms in which it is being implemented in order to evaluate their results with the bin. Another important comparison is the oral health of Head Start students exposed to the bin versus non-Head Start students of the same age group. This will also allow us to evaluate the effectiveness of the bin. Success of our intervention will be fewer dental caries in Head Start children and an overall improvement in the oral health of the students who were exposed to the bin, including an increase in follow-up dentists visits. We expect the students who were exposed to the bin to score better on a post-test evaluating their gained knowledge, than they had on the pre-test given prior to the bin presentation.
In addition to the bin, we are also recommending that the nurses and teachers utilize motivational interviewing to create the necessary changes in the children’s oral health. We discussed motivational interviewing with the nurses at the February 20, 2009, health team meeting regarding the bin. They seemed very receptive to the idea of using this method of teaching. The pre-test we gave to this group is intended to be used with the teachers and parents as well. A more age appropriate test should be created to use with students in order to evaluate the effectiveness of the bin in the target population. A follow-up with parents to check their progress in improving oral health in their family and to determine the number of follow-up dentist visits will be conducted via questionnaire distributed by teachers.

Results

Pre-Test Results With Answers in Red
(Test given to 9 Head Start nurses on February 20, 2009)

1. Cavities are not contagious (False)

2. When does good oral health begin for children?
   a. After a child gets their first tooth
   b. During a woman’s pregnancy
   c. At birth
   d. When children get their adult teeth
3. At what age do you begin teaching your child to drink from a cup?
   a. 6 months of age
   b. 1 year of age
   c. 2 years of age
   d. 3 years of age

4. List four ways that children can get fluoride:
   1. By drinking fluoridated water
   2. Brushing with fluoridated tooth paste (only if the child is over the age of 2)
   3. Fluoride varnishes at the dentist office
   4. Fluoride supplements from the doctor or dentist

5. List four reasons children need healthy teeth:
   1. To eat properly
   2. To save space for adult teeth
3. To learn to talk properly
4. To grow up without dental pain

6. It is important to prepare children for what they can expect at the dentist.

7. It is OK to put a baby to bed with a bottle.

8. It is OK to give a two-year-old a bottle with apple juice in it.

Over all the staff did very well on the pre-test we created. They were well versed in the Head Start oral health talking points. We feel that even with out the results of a post-test that they are prepared to start
presenting the oral health care bin to teachers and parents.
Appendix A

Lesson Plan

I. Give Pre Test- See Appendix B
II. Give answers to pretest- See Appendix C
III. Give handout on Talking Points- See Appendix D
IV. Explain Bin and its contents- See Appendix E
   a. Explain that contents of bin are present on side of bin
   b. Binder-has background dental information. Has important dental activities and games
   c. DVD- great DVD that should be presented to children to prepare them for the dentist.
   d. Washcloth in bin to explain importance of cleaning baby's gums
   e. Toothbrush and model of teeth to show how to brush teeth
   f. Two Sugar displays to explain sugar contents of common foods. Explanation of displays are in binder
V. Review of Motivational Interviewing- see Appendix F

Materials

Pre-test, Contents of bin, DVD, Talking Points

References


Appendix B

Pre Test

1. Cavities are not contagious. True False

2. When does good oral health begin for children?
   a. After a child gets their first tooth.
   b. Good oral health care begins during a woman’s pregnancy.
   c. At birth.
   d. When children get their adult teeth.

3. At what age do you begin teaching your child to drink from a cup?
   a. 6 months of age
   b. 1 year of age
   c. 2 years of age
   b. 3 years of age

4. List two ways that children can get fluoride:
   __________________________________________
   __________________________________________

5. List three reasons children need healthy teeth:
   __________________________________________
   __________________________________________
   __________________________________________

6. It is important to prepare children for what they can expect at the dentist.
   Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree
   1 2 3 4 5

7. It is OK to put a baby to bed with a bottle.
   Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree
   1 2 3 4 5

8. It is OK to give a two-year-old a bottle with apple juice in it.
   Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree
   1 2 3 4 5
Appendix C

Pre-Test Administration Script With Answers

1. Presenter: “I am handing out a test for you to complete regarding the dental health of children. Following the test, we will be giving you detailed information about dental health. We are simply using the test to see what knowledge you already have on the subject. You don’t have to include your name on the test, so feel free to write whatever answers come to mind. There will be no way to identify who completed which test. I’ll give you about 5 minutes to complete the 8 questions.”

2. (Collect the tests and hand out City of Denver Head Start Dental Talking Points handout)

3. Presenter: “Okay, now I’ll go over the test answers with you. You may follow along using the Talking Points sheet I handed out. This sheet has a summary of all the major points of this presentation, so it may be a good idea to keep it in a handy place where your family can read it.”

   a. 1. Cavities are not contagious.
       
       This question is False. Cavities and the bacteria associated with them can be transferred from person to person. This is why you should never share eating utensils with your children, as well as toothbrushes, or anything that may be going from your mouth to theirs. This includes holding pacifiers in your mouth before giving them to your child.

   b. 2. When does good oral health begin for children?
       
       The answer is b. During a woman’s pregnancy. It is very important for pregnant women to maintain good oral health throughout their pregnancy. Having gum disease or other dental problems during a pregnancy can contribute to the baby being born with a low birth weight or even cause preterm labor. After the child is born, they should visit the dentist when their first tooth erupts, usually at about 6 months of age.

   c. 3. At what age do you begin teaching your child to drink from a cup?
       
       The answer is a. 6 months of age. Many of you may be thinking that is too young, however the sooner you can get a bottle away from your child, the better. When children drink from bottles, the contents sit in their lower gums allowing bacteria to grow and decay to begin. By using a cup, the fluid goes down the throat rather than staying in the mouth.

   d. 4. List four ways that children can get fluoride:
       
       4. By drinking fluoridated water
       5. Brushing with fluoridated tooth paste (only if the child is over the age of 2)
       6. Fluoride varnishes at the dentist office
       7. Fluoride supplements from the doctor or dentist

   e. 5. List four reasons children need healthy teeth:
       
       5. To eat properly
       6. To save space for adult teeth
       7. To learn to talk properly
       8. To grow up without dental pain

   f. 6. It is important to prepare children for what they can expect at the dentist.
       
       This statement is True. Children respond better to new experiences and places if they know what to expect. It is important to talk to them about what they will see at the dentist’s office, the people who will be there, what will be done to the child, etc. Some recommendations of good information to give to the child can be found at the
top of your handout. The more they know before they go, the better they will react once they’re there.

g. 7. It is OK to put a baby to bed with a bottle.
   *This statement is False.* You should never put a child to bed with a bottle. Not only can it create a choking hazard, but allowing the contents of the bottle to sit in the baby’s mouth while they sleep creates an ideal environment for bacteria.

h. 8. It is OK to give a two-year-old a bottle with apple juice in it.
   *This statement is False for two reasons:* 1. A 2 year old should not be drinking out of a bottle still, and 2. You should only put water or milk/formula in a bottle. Juices and other sugary drinks shouldn’t be given to a child in a bottle. Once again, bottles allow fluids to stay in the mouth longer, so sugary fluids cause more harm than water or milk would.
Children have good dental visits when they know what to expect.
- Dentists wear special cloths to keep everything clean.
  - The dentist may wear a white coat, mask and special glasses.
- The dentist office has a special bright light to see your teeth.
- The office has a special chair that moves up and down.
- The dentist will count your teeth.
- The dentist may polish your teeth with a special tiny brush.
- The dentist may have a special straw to clean your teeth.

Children need healthy teeth to:
- Eat properly
- Save space for adult teeth
- Learn to talk properly
- To grow up without dental pain

Cavities happen when food and germs are in contact with the teeth for a period of time.

Babies and children’s teeth need regular care to keep them clean and healthy.
- Wipe infant teeth and gums with a soft cloth to remove food and germs.
- Brush children’s teeth twice a day.
  - Brush teeth with a “pea” size amount of fluoride toothpaste.
- Fluoride makes teeth stronger.
  - Children get fluoride by:
    - By drinking fluoridated water
    - Brushing with fluoridated tooth paste
    - Fluoride varnishes at the dentist office
    - Fluoride supplements from the doctor or dentist
- Healthy foods keep teeth healthy:
  - Tap water
  - Fruits and vegetables
  - Cheese and lean meats
  - Whole grains
  - Milk
- Avoid high sugar goods and sticky foods
Appendix E

Contents of the Dental Bin

Egg timer
Kid’s toothbrush
Giant tooth brush/teeth
Washcloth
Tooth model
Sugar display
Taking Care of My Teeth-Children’s book in English and Spanish

Light activity
- Metal wand and 2 AA batteries
- Pan
- Activity sheet with brads

4 plastic sign holders
Flip Chart (with PowerPoint presentation)
Sparkling Smiles/Let’s Go to the Dentist-video

Notebook with handouts and disk
- Dental Talking Points
- Sugar Display Talking Points
- Taking Care of Teeth Gives Your Child a …Sparkling Smile (English and Spanish brochure).
- Why Brush My Teeth? (from More Than Mudpies)
- A Family’s Guide to Keeping a Healthy Smile (from More than Mudpies)
- Keeping Your Child’s Healthy Smile!
- Sweets…How Much is Too Much?
- How Do I Feed My Teeth (from More Than Mudpies)
- Preventing Tooth Decay
- Happy Teeth activity
- Keep Your Smile for Life!
- Fun with Fruits and Vegetables
- Guess the Sugar in Common Foods and answer sheet (light activity)
- Oral Health can Affect General Health
- Care of Primary Teeth
- Child’s First Visit to the Dentist
- Dental Health From Birth to Age Three
- Eating Right for Your Dental Health
- Preventing Tooth Decay
- Preventative Dentistry: Tooth brushing
- 7 Pictures of Smiling Kids for display holders
- Denver’s Great Kids Head Start: “Healthy Teeth Give Children a Sparkling Smile”-background research
Appendix F

Motivational Interviewing

- What Is MI?
  - It is “a directive, client-centered counseling style for eliciting behavior change by helping clients explore and resolve ambivalence” (Rollnick & Miller, 1995, ¶ 3).

- Why Do We Use It?
  - We use MI because our clients have significant barriers to having good oral health care and are often resistant to authority figures and being lectured to.
  - People don’t change because we want or tell them to change, people change because they decide to change on their own (Allison, 2005).

- How Does It Work?
  - Express Empathy
    - Understanding the perspective of the patient
  - Develop Discrepancy
    - Explore inconsistencies with goals and values
    - Client comes up with reasons for change
  - Self-efficacy
    - Being optimistic, positive and hopeful
    - Client changes on their own
    - You facilitate the idea that change can happen
  - Roll with Resistance
    - Refusing to argue or be ‘pushy’
    - Give new points of view without forcing them (Rollnick, Miller, & Butler, 2007)

- Non-MI:

  Client: I know I should take better care of my and my kids’ teeth but it’s so expensive and healthy food costs too much.
  Nurse: Well, research has shown that kids with poor dental health have problems eating properly, learning how to talk, and suffer from dental pain.
  Client: I know but I didn’t go to the dentist when I was little and I turned out ok.
  Nurse: Have you heard the story of the little kid who died from an untreated dental infection that spread to his blood?
  Client: Well, when one of my kids gets an infection I will take them to the dentist then…

- MI:

  Client: I know I should take better care of my and my kids’ teeth but it’s so expensive and healthy food costs too much.
  Nurse: So, you feel that oral health is important but it’s too expensive for you right now?
  Client: Well yeah, it’s just that our budget is so tight and I am working two jobs as it is. I’m so tired and the last thing I want to do when I get home is nag the kids about brushing their teeth or cook a healthy meal. I don’t have extra time to take them to dentist visits.
  Nurse: It sounds like you have a great deal of stress. Would you feel less stressed if you didn’t have to worry about expensive dental visits? If I was able to give you some resources for free dental screenings and some simple inexpensive tips on how to keep your kids teeth healthy would that help any?
  Client: Yeah, I think that would be great.
References


Psychotherapy, 23, 325-334.

