Oral Hygiene and Dental Care

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THE NORTH DAKOTA STATEWIDE
DEVELOPMENTAL DISABILITIES
STAFF TRAINING PROGRAM

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Lesson 1: Why are Good Oral Hygiene and Dental Care Important?

Objectives: Upon completion of the lesson, staff members will be able to:

1) explain the importance of good oral hygiene and dental care.

2) describe plaque and its role in tooth decay and gum disease.

3) explain the cause of tooth decay and the differences in adult and child decay.

4) explain what gum disease is and how it is caused.

A person’s oral hygiene and dental care can have a direct effect on their overall health status. If a person’s teeth or gums are not healthy, they may experience pain or discomfort. This can affect what and how well they eat. A person’s ability to speak may also be affected by dental problems. It is vital for all to practice good oral hygiene and to participate in a comprehensive regimen of dental care.

People with disabilities often have special concerns (health, physical, behavioral, etc.) which can complicate their oral hygiene and dental care. This module will give you some basic foundation information about this topic and will provide opportunities for you to individualize the training materials to better fit the needs of the people you serve. You may find that you need to integrate information from the person’s dentist as well as your program’s nurse, occupational or physical therapist, dietician, or others involved in direct provision of services. Duties of the staff member in the area of dental hygiene may include brushing the person’s teeth, or instructing the person in ways to independently complete these tasks.

The Role of Plaque

Before talking about the specifics of promoting good oral health, the major contributing factor to dental disease should be addressed. Plaque is a clear, sticky coating of bacteria and their by-products which forms on the teeth. It accumulates in the pits of the teeth, along the boundaries between the teeth and gums, and in cracks, defects, and rough surfaces. If plaque is not thoroughly removed every day, it can cause the two main enemies of good oral health: tooth decay, and gum disease.
Tooth Decay

While people tend to associate tooth decay with children, it’s important to understand that it isn’t just a health problem of children. People of all ages are susceptible to decay.

Tooth decay occurs when the protective coating on our teeth, called enamel, breaks down. The culprits are foods containing carbohydrates (sugar and starches). Plaque bacteria convert the sugar and starch into acid. Each acid attack may last twenty minutes or more, and after many attacks, the tooth enamel breaks down resulting in a cavity.

Children are especially at risk because of the small pits and cracks on the chewing surfaces of their teeth. Some of these areas are so small that even a single toothbrush bristle cannot reach inside.

Adults, on the other hand, are more prone to decay around the roots of the teeth. This is because as people age, their gums begin to recede, exposing the root of the tooth. Tooth roots are much softer and do not have the protection of enamel.

Gum Disease

Gum disease is an infection of the gums which is caused by a film of bacteria that coats everyone’s teeth. Gum disease can occur at any age, but it is most common among adults.

In the early reversible stage of gum disease, called gingivitis, gums can become red, swollen and bleed easily. When the disease progresses to the bone, which supports the teeth, it is called periodontitis and at that point can cause irreversible damage. In the advanced stage of the disease, the bone and soft tissues which support the teeth are destroyed and this may cause the teeth to become loose, fall out, or have to be removed by a dentist.

Gum disease is caused by bacteria that attach to the crown and root surfaces of the teeth. These bacteria organize to form a film called dental plaque. Because plaque is sticky and constantly forms on the teeth, it can continue to build up on the teeth and gums. If plaque is not removed through daily cleaning, it produces toxins or poisons that can irritate and inflame the gums. Eventually, these toxins destroy gum tissues, causing the tissues to separate from the tooth and form deepened spaces called pockets. The pockets can then hold more bacteria, and the process can progress so that the gum tissues detach even further until the bone and other supporting tissues of the teeth are destroyed.

* Information on tooth decay and gum disease is reprinted with permission from the American Dental Association publication Dental Care for Special People, 1991. This booklet can be obtained from the ADA by calling 1-800-947-4746.
Lesson 1: Feedback Exercises

True or False

1. T or F  A person’s ability to speak can be affected by dental problems.

2. T or F  A staff member’s responsibility will only involve brushing the person’s teeth when needed.

3. T or F  Everyone, regardless of age, is susceptible to tooth decay.

4. T or F  Tooth decay occurs when tooth enamel breaks down.

5. T or F  Children are more prone to decay around the roots of their teeth because of their failure to brush their gums.

6. T or F  Gingivitis can be treated, but periodontitis can progress to the bone and be irreversible.

7. _______ _______ is caused by bacteria that attach to the surfaces of the tooth.

   These bacteria organize to form a film called _______ _______.

8. List the two major “enemies” of good oral health.
Lesson 2: Oral Hygiene

Objectives: Upon completion of the lesson, staff members will be able to:

1) list the main components of oral hygiene and how the level of needed assistance is determined.

2) describe safety and sanitation procedures to be followed during oral hygiene.

3) role model how they would prepare a person to have their teeth brushed.

4) tell the appropriate location for oral hygiene and give the rationale for privacy and sensitivity.

5) describe and demonstrate two of the positions for assisting people who need assistance with oral hygiene.

The main components of oral hygiene are tooth brushing, flossing, cleaning the tongue, and other parts of the mouth. Staff members who work with people with disabilities may have numerous roles in assisting in the oral hygiene process. The degree of assistance you will need to provide is determined by the unique, individual needs of the person. Some will be able to become independent in their own oral hygiene. Many others will need varying amounts of training and assistance in order to meet their oral hygiene needs; and some will need total care by personnel in order to maintain good dental health.

The person’s interdisciplinary team will make decisions about the level of training and/or assistance he or she will need. Specific procedures for personal oral hygiene will be reviewed later. In some cases, a person will not want to have assistance with oral hygiene. The person you are assisting may actively (even aggressively) resist oral hygiene. Information about how to deal with these situations will be discussed at the team meeting and addressed in the program plan.

A. Preparation for Assisting with Oral Hygiene

Before assisting a person with their oral hygiene, some sanitation precautions must be taken. Review specific programs or procedures for the person, prepare the person for what is going to happen, and assist in preparing the environment and equipment which will be used.

1. Safety and Sanitation

As previously mentioned, whenever you assist with personal hygiene tasks, you must first take some precautions to prevent the spread of
illness and disease, both to yourself as well as to whom you are assisting. Hand washing is of utmost importance. Before beginning, a thorough washing of the hands, and an assurance that the person washes their hands, assisting them when necessary, is mandatory. (Hand washing procedures are explained in detail in the Control of Infection and Disease training module as well as the Nutrition module).

Since oral hygiene procedures can potentially involve contact with the person’s blood, the appropriate universal precautions should be followed as discussed in the Communicable Disease module. To briefly review, protect yourself from contact with blood by wearing appropriate protective clothing. Vinyl or latex gloves should be worn after washing and drying hands. In some cases, particularly if using an electric toothbrush or water pik which can cause splattering, wear protective eye/face wear and aprons, gowns, etc. The program supervisor should review the appropriate precautions to use in your program.

2. **Reviewing Programs/Procedures**

   Staff members must make sure they fully understand any programs or specific procedures to use with the person. If necessary, ask the supervisor or the agency nurse for clarification of any portion not fully understood.

3. **Preparing the Person**

   Before beginning to assist a person with any personal care, staff members should first make sure the person understands and anticipates what is going to happen. Explain the procedure to the person in a way they will understand including what you will be doing to them and what their participation will be. Some may need specific relaxation techniques to ready them for having their teeth brushed. Be aware that, for some, having their mouth, teeth, or head touched by another person may be threatening and disturbing. Use slow, calm movements so as not to startle the person. It helps to have a well lit but relaxed atmosphere with a minimum of other activity and noise.
4. Preparing Environment/Equipment

Oral hygiene should typically take place in the bathroom or other places. It is not a good idea to perform personal care tasks in common areas, such as the water fountain or sink in the kitchen. The person's dignity and privacy should always be protected. It is generally best to have the person participate as much as possible in preparing the necessary equipment and supplies.

5. Proper Positioning for Oral Hygiene

For those who require physical assistance during oral hygiene, proper positioning can often make the difference between a pleasant, efficient procedure and an uncomfortable, poorly done job. It is important to note that positioning must be individualized to the needs of every person. The following suggestions are fairly general and the person you assist may have more specialized positioning procedures which you will need to follow. When in doubt, ask your agency nurse, physical therapist or occupational therapist.

The following pictures and instructions are reprinted with permission from the American Dental Association publication Dental Care for Special People, 1991. This booklet can be obtained from the ADA by calling 1-800-947-4647.

Δ Wheelchair—figure 1

Stand behind the wheelchair. Use your arm to brace their head against the chair or your body. You may want to use a pillow for comfort.

Δ Wheelchair—figure 2

When caring for a child, you may wish to sit or stand behind the wheelchair. Remember to lock the wheels first, then tilt the chair back into your lap.

Figure 1
A Bed, sofa, or floor—figure 3

Lay the person down with their head on your lap. Support may be provided for their head and shoulders with a pillow and your arm. If they are uncooperative or uncontrollable, have someone hold their hands or feet.

A Foam chair or beanbag chair—figure 4 upper and lower.

Those who have difficulty sitting up straight may find that a foam chair or beanbag chair will allow them to relax without fear of falling. Take up a position behind or next to the chair, using an arm to support the head and body.

Whatever position is found to work best, remember to support the person’s head. Take special care to prevent them from choking or gagging when the head is tilted back.

B. Tooth Brushing

Brushing removes plaque and other debris from accessible areas of the teeth. A brush with soft, end-rounded or polished bristles may be recommended, as it is less likely to injure gum tissue. The size and shape of the brush should allow you to reach every tooth. A number of different tooth brushing methods are acceptable.

The following method is one that is currently being suggested for plaque removal by the staff members or by the individual:

1. Place the head of your toothbrush alongside the teeth, with the bristle tips angled against the gum line (figure 1).
2. Move the brush back and forth with short (half-a-tooth wide) strokes several times, using a gentle "scrubbing" motion.

3. Brush the outer surfaces of each tooth, uppers and lowers, keeping the bristles angled against the gum line (figure 2).

4. Use the same method on all of the inside surfaces of the teeth, upper and lower, still using the short back and forth strokes (figure 3).

5. Scrub the chewing surfaces of all teeth.

6. For the front teeth, brush the inside surfaces of the upper and lower jaws by tilting the brush vertically and making several gentle up and down strokes with the "toe" (the front part) of the brush over the teeth and gum tissue (figure 4).

7. Brushing the tongue will help freshen breath (figure 5).

It is recommended to brush with an accepted fluoride toothpaste. Those bearing the seal of the American Dental Association’s Council on Dental Therapeutics are proven effective in reducing dental decay.

C. Flossing

Flossing removes plaque and debris which accumulates in areas a toothbrush cannot reach between the teeth and underneath the gum line. Flossing generally takes more practice to perform correctly than brushing, and will require more of the staff member’s time to perform and/or instruct flossing with the person. The following is the proper method of flossing.
While learning to floss, master these "flossing fundamentals":

△ Break off about 18 inches of floss and wind most of it around one of the middle fingers. Using a loop of floss may be easier. In addition, for those individuals who have difficulty in manipulating dental floss, commercial floss holders may be helpful for performing this special skill.

△ Wind the rest around the same finger of the opposite hand. This finger can "take up" the floss as it becomes soiled (figure 1).

△ Use the thumb and forefinger with an inch of floss between them to guide the floss between your teeth (figure 2).

△ Holding the floss tightly (there should be no slack), use a gentle sawing motion to insert the floss between your teeth. Never "snap" the floss into the gums! When the floss reaches the gum line, curve it into a C-shape against one tooth and gently slide it into the space between the gum and the tooth until you feel resistance (figure 3).

△ While holding the floss tightly against the tooth, move the floss away from the gum by scraping the side of the tooth.

△ Without removing the floss, curve it around the other tooth and scrape it too. Scrape floss down on upper teeth and up on bottom teeth.

△ Repeat this method on the rest of the teeth.

   After brushing and flossing, the mouth should be thoroughly rinsed with water or a mouthwash to flush away dislodged food particles and plaque from around the tongue and cheeks.
Information on toothbrushing and flossing is reprinted with permission from the American Dental Association publication Oral Health Care In The Long Term Care Program, 1983. This booklet can be obtained from the ADA by calling 1-800-947-4746.

D. Skill Development Exercise

At this point in the training, you will have the opportunity to experience what it's like to have someone else brush your teeth. You will need new soft bristled toothbrushes, toothpaste, floss, cups for rinsing, and protective gloves. If possible, do this exercise in the bathroom. If you must use another location, have water and basins available and use appropriate sanitation and safety precautions. You will be assigned a partner and each of you will brush and floss the other person’s teeth.
Lesson 2: Feedback Exercises

True or False

1. T or F The type of oral hygiene assistance a staff member will have to provide to a person is determined by their category of disability (i.e. Mild Retardation).

2. T or F Appropriate universal precautions should be taken when assisting with oral hygiene.

3. T or F It has been found that oral hygiene procedures should be accomplished without any delay or explanations, because no one likes having their teeth brushed.

4. T or F Whatever position is found to work best for oral hygiene, remember to always support the individual’s head.

5. T or F A tooth brush with soft, end-rounded bristles is recommended, as it is less likely to injure gum tissue.

6. T or F Scrape dental floss up on upper teeth, and down on lower teeth.

7. T or F The environment in which oral hygiene care takes place should be as private as possible, to ensure the person’s dignity.

8. Orally explain the 7 steps for the recommended tooth brushing procedure.

9. Orally explain the 7 steps for the recommended flossing procedure.
Lesson 3: Dental Care

Objectives: Upon completion of the lesson, staff members will be able to:

1) name the main component of good dental care.

2) describe the preparation procedure for a person’s individual needs being met at a dentist’s office.

3) describe 3 ways medications can affect a person’s oral health.

4) describe modifications which may be made to equipment to help individuals participate with more independence in the oral hygiene process.

Another major component of promoting good dental health is participating in a program of comprehensive dental care. The cornerstone of good dental care is making regular visits to a dentist. Dental visits should occur at least annually and more frequently if the person’s condition warrants.

It is important that the dentist be sensitive to the needs of persons with disabilities. The staff member can play an important role in familiarizing the dentist with the person’s individual characteristics and needs. Depending on the person’s needs and feelings about dental visits, sometimes a telephone call or meeting in advance of the appointment can result in the dentist and office staff being more aware of how to best respond to the person and allow the time for both parties to work out how to accommodate any special needs. It is better to try to work out solutions to potential barriers or obstacles in advance of the visit, if possible.

When talking to the dentist or dental staff provide a positive example by speaking in positive, people-first language and referring to the person in an age-appropriate manner. When the person is present, speak to the person directly or to involve them in the conversation, as opposed to talking about them in the third person.

It is also, very important to prepare the person for their visit to the dental office. It is important to note that some may find this a threatening and even frightening experience. Work with the person to make them as comfortable as possible and explain what is likely to happen during the visit in a way the person can understand. Some who are very nervous about a visit to a new dentist or clinic may be comforted by visiting the office in advance of the visit.
Special Considerations

A. The Effects of Medications

Medications can sometimes affect the mouth and teeth, causing different types of problems.

△ Medications that use syrup or sugar to sweeten their taste can cause tooth decay if taken on a regular basis. Some medications can stain teeth.

△ Some seizure medications may cause bleeding or enlarged gums, which can make chewing and speech difficult, as well as lead to periodontal disease.

△ Some medications reduce saliva flow, a condition called “dry mouth”. Without the normal flow of saliva, which helps to cleanse the mouth of food particles that attract bacteria, rapid tooth decay can occur. Medications that can lead to dry mouth include certain types of sedatives, barbiturates, antihistamines, and drugs used for muscle control. Dentists can diagnose and recommend treatment for dry mouth.

△ Aspirin, taken in large doses, and dissolved in the mouth before swallowing, can damage tissues and provide an acid environment that promotes decay.

If a medication is causing a problem or reaction in the mouth, it should be discussed with the physician, who may be able to prescribe an alternate medication.

B. Modified Equipment

Many people have hand, arm, or shoulder problems which limit their ability to brush and floss. Some of the following suggestions may help them to brush and floss without assistance from others.

△ Attach the toothbrush handle to the hand with a wide elastic band.

△ Enlarge the toothbrush handle with a sponge, rubber ball, or bicycle handle grip.

△ Lengthen the toothbrush handle with a piece of wood or plastic, such as a ruler or wooden tongue blade.
△ Bend the toothbrush handle. This can often be done by running hot water over the handle (not head) of the brush.

△ Use an electric toothbrush for individuals with motor coordination difficulties.

△ Tie the ends of the floss together, making a circle.

△ Use a commercially available floss holder.

Information on the effects of medication and modified equipment is reprinted with permission from the American Dental Association publication Dental Care for Special People, 1991. This booklet can be obtained from the ADA by calling 1-800-947-4647.

Specific Individual Issues

At this point, a review of specific needs, programs, procedures, and equipment for oral hygiene and dental care of the persons being served in this program should be conducted.

Go over in detail the specific needs, procedures, equipment, and programs for individuals in this program. Include any specific behavioral interventions for individuals who may be resistive or aggressive to oral hygiene.
Lesson 3: Feedback Exercises

True or False

1. T or F Dental visits should occur at least annually, and more frequently if needed.

2. T or F If at all possible, the person and dentist should be familiar with each other before dental work is initiated.

3. T or F If medications are causing problems with a person's oral health, immediately discontinue its use.

4. List 3 oral health problems that may occur due to medications.
   a) 
   b) 
   c) 

5. List 3 modifications that can be applied to oral hygiene equipment that will allow people to participate to a greater degree in their own care.
   a) 
   b) 
   c)
Answer Keys

Lesson 1

7. Gum disease, Dental Plaque
8. Tooth Decay, Gum Disease

Lesson 2

8. 1) Place the head of the brush alongside the teeth, with bristle tips angled toward the gum line.
2) Move the toothbrush back and forth with short (half-a-tooth) strokes, gently scrubbing the teeth.
3) Brush outer tooth surfaces, both upper and lower, keeping bristles along the gum line.
4) Use the same method on the inside surfaces of the teeth, both upper and lower.
5) Scrub the chewing surfaces of all teeth.
6) For the front teeth, brush the inside surfaces of upper and lower jaws by tilting the brush vertically, and making several, gently, up and down strokes with the front of the brush over the teeth and gum tissue.
7) Brush the tongue to freshen the breath. (Participants may combine the steps, but must include all components.)

9. 1) Take approximately 18 inches of floss and wind most of it around one of your middle fingers.
2) Wrap the rest (except for 1 inch) around one of the middle fingers on the opposite hand.
3) Use the thumb and forefinger with an inch of floss between them to guide the floss between the teeth.
4) Holding the floss tightly, use a sawing motion to insert the floss between the teeth. When floss reaches the gum line, curve it into a C-shape against one tooth and slide floss into the space between the gum and tooth until you feel resistance.

5) Holding the floss tightly against the tooth, move it away from gum by scraping the side of the tooth.

6) Curve floss around the other tooth of the pair and scrape it. Scrape down on upper teeth, and up on lower teeth.

7) Repeat with other teeth, and rinse with water or mouth wash.

(Participants may combine steps but should contain all components.)

Lesson 3

1. T

2. T

3. F

4. 1) Medications with sugar can cause tooth decay or stain teeth.

2) Bleeding or enlarged gums, which make chewing and speech difficult.

3) Reduce saliva flow (dry mouth).

4) Aspirins that dissolve in mouth before swallowing can promote decay.

(May use any three responses)

5. 1) Attach tooth brush handle to hand with an elastic band.

2) Enlarge tooth brush handle with sponge, rubber ball, or bicycle handle grip.

3) Lengthen tooth brush handle with wood or plastic.

4) Bend tooth brush handle (using hot water on the handle).

5) Use electric tooth brush.

6) Tie ends of dental floss together

7) Use a dental floss holder.

(May use any three responses)