

Dubai Smiles Healthy Manual

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The authors of this Program Manual have endeavored to ensure that it reflects relevant guidance and evidence, which is current at the time of the publication. All trainers and health care providers are advised to keep up to date with updates of the program. Websites are a source of references and also are the directives from Dubai Smiles Healthy program

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Forward

This manual describes the first preventive or community based program implemented in the Emirate of Dubai. It was based on the screening program conducted in 2012 in Dubai and is developed to support all staff that work within the scope of the program. “Dubai smiles Healthy” (DSH) includes national and international requirements for better preventive care and overall wellbeing and happiness of the community. Periodic evaluation and development will be conducted for the program.

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Dubai Smiles Healthy Program Manual-

Purpose and Use

The main purpose of this manual is to provide information and support to the staff who are involved in the implementation and delivery of Dubai Smiles Healthy Program, which is aimed at improving the oral health of children from 6 months to 17 years of age in Dubai.

Future versions of this manual will be further developed and amended due to the continuous feedback from staff involved in the program.

This manual is a tool to support the health regulations and policies of Dubai Health Authority to have a Safe and Happy community.

Dubai Smiles Healthy (DSH)

Following the oral health survey conducted among Dubai school children in 2012, Dubai Smiles Healthy (DSH) was developed. This program was based on the need for oral health promotion and oral diseases prevention to decrease the caries prevalence (dmft) of the young population of Dubai.

Dubai Smiles Healthy (DSH) is a national program designed to improve the oral health of children in Dubai. It is adapted from the Childsmile program of NHS Scotland¹ and follows the World Health Organization recommendations for preventive care.²

It has three main components:

- Dubai Smiles Healthy - School Practice Program
- Dubai Smiles Health - School Nurse Training Program
- Dubai Smiles Healthy - Child Health Program

The program includes all the regions of Dubai (Deira, Bur Dubai and others-Hatta and Lusaily).

Vision:

Based on the vision of Dubai Health Authority – “Health, Safe and Happy community”, Dubai Smiles Healthy provides a comprehensive approach to tackle the dental problems of children through the three component programs (school practice, school nurse training and child health sessions).

It is tailored to the needs of this population and adapts to the resources available within the Dubai Health Authority.

Aim:

The aim of this program is to decrease the caries prevalence (dmft) of the children population by 1 within the next three years.

The target, if met-allows shifting the focus from screening for the dental caries to health promotion and primary prevention and targeting active intervention for the children and their guardians. The decrease of dmft will be revised every three years to allow for adaptation to the community needs and targets achieved.

Every child from 6 months to 17 years of age, should have access to:

- An enhanced program of oral health care within the Public Health Care (PHC).
- Clinical oral diseases preventive programs in nurseries and schools.

Target achievements:

- To achieve a decrease in the dmft by 0.2 for the first year of the program (subject to revision)
- To achieve a decrease in prevalence of caries by 1% (subject to revision)
- To receive two applications of fluoride varnish per year for each child.

Policies and guidelines:

The Dubai Smiles Healthy (DSH) program is under direct supervision of Dubai Health Authority and follows recommendations by the WHO guidelines for preventive intervention.

In addition, the Ministry of education and Knowledge and Human development Authority play an important role.

Follow-up and revision of the program:

- The main focus will be on identification of need and delivery of preventive advice in all forms.
- A 36 month oral health review will be done to allow re-evaluation and development of the previous survey conducted in 2013. Dubai Smiles Healthy pathway. This will be done through a screening survey following the protocol.

- First symposium on Dubai Smiles Healthy (2018):
 - ❖ Poster presentation
 - ❖ Presentation by the head of department and main contributors
 - ❖ Announcement of results.
 - ❖ Involvement of higher management.
 - ❖ Outcomes, lessons and future plans.

Integration of children in DSH program:

Children can join the Dubai Smiles Healthy program through the main channels i.e. Primary Health Care centers and schools and nurseries.

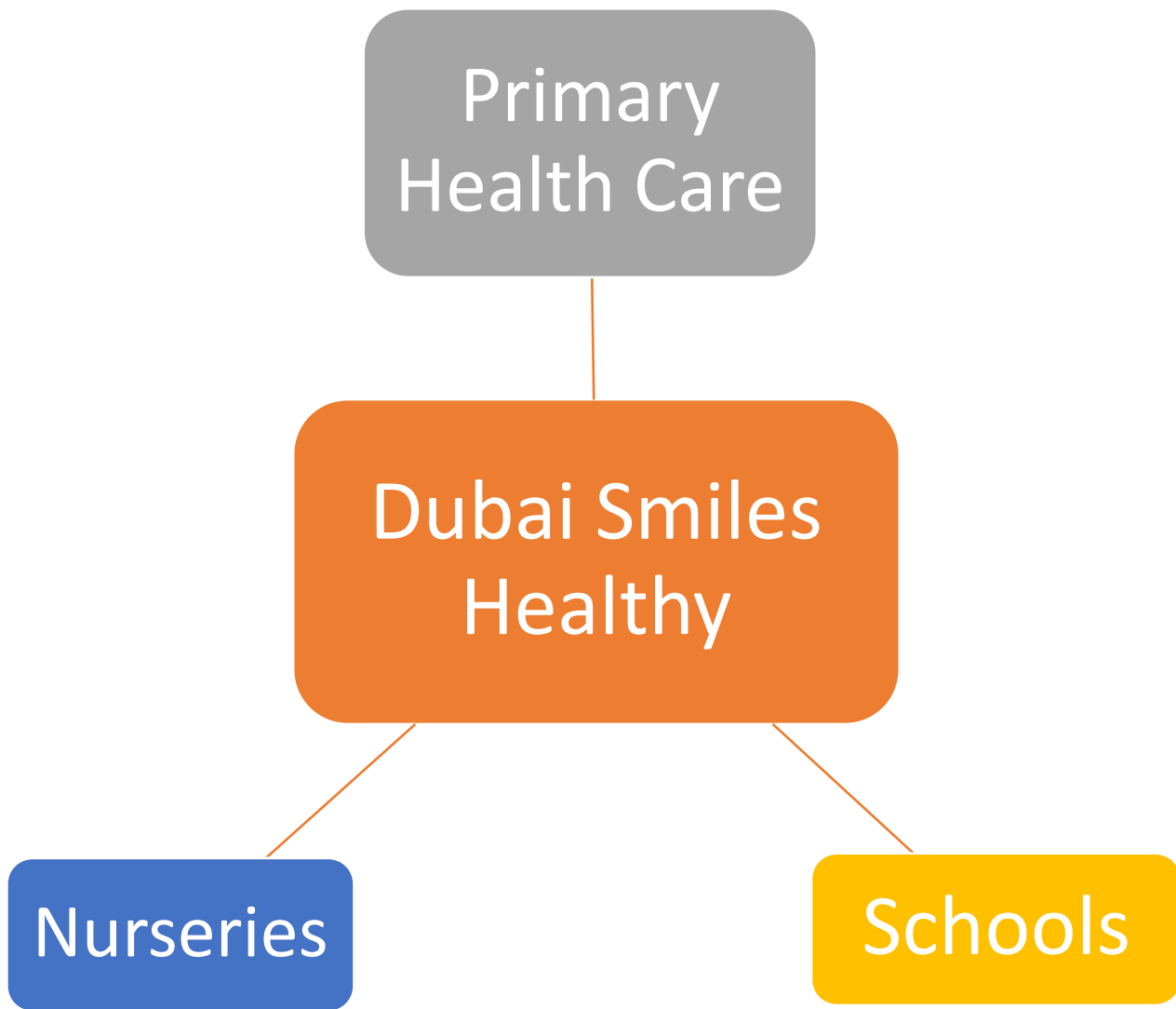


Fig 1: Integration of children in DSH

Who delivers Dubai Smiles Healthy?

Dental Practice Staff: dentists, dental assistants and dental hygienists.

School Health Staff: School nurses, school physicians and teachers

Stakeholders in such a program are:

1-Dubai Health Authority

- Dental department
- School health department

2-Knowledge and Human development Authority

3-Ministry of Education

4-Local school administrations

5-Potential sponsors

Dubai Smiles Healthy - Child health session

**Reaching infants, young children and parents through
trained Dental Hygienists**

Role of Dental Hygienists in the control of dental caries among infants, children and parents

There is an urgent need to integrate oral health promotion, education and disease prevention into the health system. According to the latest study in the Emirates of Dubai, more than 65% of the population of school children, who have caries and dental diseases. Dental caries and diseases are one of the top reasons children are admitted to general anesthesia, they are also a reason for children performing badly in schools and becoming unhealthy, nonproductive individuals in the future, costing the government hundreds of thousands of dirhams per year. The good news is that dental diseases are preventable and could be decreased tremendously with proper oral health prevention programs.

The role of dental hygienists is very important in decreasing the level of dental diseases through intervention programs. Dental hygienists are in continuous contact with the patients, they provide them with all the basic needs to establish a healthy oral hygiene, they work hand in hand with the dentist to help the patients to maintain a healthy oral cavity and eventually an overall healthy body. Interestingly, when Health Promotion behaviors of private practice dental hygienists were studied, it showed that although dental hygienists provide health promotion services frequently, these services may not be provided consistently in the most effective way.¹⁶

Therefore, there is an urgent need to extend the role of the dental hygienist in preventive programs and invest in this plan, as it will be less costly than actually treating chronic dental diseases. Improvement of oral health in the Emirate of Dubai requires providing and maintaining in every health center, highly skilled and motivated hygienists. There is an urgent need to support and train hygienists to cope with the increased level of dental diseases in the community.

A modest starting point is to invest in the available dental hygienists and increase the number of dental health promoters.

This will lead to a healthier community that will contribute in economy recovery and highly productive and active individuals.

Child health session

The child health sessions are carried out in two locations

1-Child health session conducted in the **dental clinics**;

2-Child health session part of the **Vaccination clinics**.

These sessions are performed within the dental department in all primary health centers; and have been recently introduced within the main centers during vaccination sessions. There are three sessions per week in the main large health centers and once a week in the smaller centers. It is free of charge and all the community is invited to attend these sessions. Children and their Parents or guardians are scheduled for appointments from the age of 6 weeks. Dental hygienists lead these sessions after they undergo proper training and educational sessions. There are set guidelines that the hygienists must follow to have a unified message sent to the public.

Parent education on proper oral health practice is the essence of the sessions. They attend with their children from the age of 6-8weeks. Education on how to care for the oral health, healthy diets and lifestyle are all part of this program.

From six months of age, dental hygienists provide regular checkups using the “lift the lip” technique and fluoride application. Children with urgent needs are referred to the dentist within the Primary Health Centers in Dubai Health Authority for follow-up and intervention. If the child is not eligible for the free treatment in the PHC, then a letter of recommendation is given to the parent to follow up with their own family dentist

Role of the Hygienists:

The role of the hygienist includes: 1) oral health advice (e.g. oral habits, diet, etc.), 2) tooth brushing instructions, 3) regular dental checkups and examination from the age of 18 months, plus 4) twice yearly fluoride application from two years old children. They are also responsible to follow-up on the attendance of families and up to date advice.

Advice should include the following information:

- How to care for your child's dentition;
- Dietary advice and the healthy way to feed your child;
- Avoiding bad habits from childhood (thumb sucking, pacifiers, etc.);
- Breast feeding verses bottle feeding;
- Resources for families to look up at home with very attractive illustrations and videos (with the help of smart phones and devices);
- Advise parents to talk to their children about dental visits in a positive way.

“Lift the lip” examination of children:

- During this session, the hygienists will check patients through the ‘Lift the Lip’ technique. To examine the child, sit on office chairs and place them in a ‘lap-to-lap’ position (fig. 2 and 3).



Fig 2: lap-to-lap technique (Adapted from The Canadian Dental Hygienists Association (CDHA)³)

- The mother or the father holds the child on their laps facing toward themselves. The child’s legs straddle the adult’s torso. The hygienist and the parent face each other touching knees as the child is laid back gently on the hygienist’s lap so that he or she may examine the child.
- This exam is very quick but thorough and is very non-threatening to the child as he or she may see the parent throughout the exam. The exam usually will take about 1-2 minutes.



Fig 3: oral cavity examination.(Adapted from The Canadian Dental Hygienists Association (CDHA)³

What to look out for:

- Examine the upper front teeth and look for early signs of tooth decay (e.g. white or brown spots that do not brush off) and existing cavities and refer them to the appropriate dental clinics for immediate dental follow-up.



Fig 4 : Healthy teeth⁵



Fig 5 : White spots⁵



Fig 6 : brown spots and cavitation⁵

* <http://drbecca.com/officetour.html> . .

- Refer children immediately to the dentist if the child has any signs of infection swelling and severe destruction.



Fig 7: signs of infection⁵

Gloves are required for this method.

Additional advice during the sessions in vaccination clinics are:

- Provide preventive advice to pregnant women and to new parents/ caregivers.
- Advise parents/caregivers to reduce the frequency of sugar intake by limiting night time on-demand feeding after 6 months.
- Advise mothers and care givers to avoid transfer of oral bacteria to their child by maintaining good oral health themselves and by not placing food, utensils, dummies or teats into their own mouths and then into their child's mouth.
- Provide dietary counselling to parents/ caregivers that is specific to the child and their family and monitor compliance.
- Provide information on teething to new parents/caregivers.
- Advise parent/care giver to get an oral health assessment to the child by their first birthday.
- Advise parents to talk to their children about dental visits in a positive way.

Dental hygienists all follow a unified form of public education. The oral health messages provided to the public along with any hygiene instructions are all benchmarked with international standards such as the American dental association, British dental foundation, etc.

The hygienists undergoes training sessions that provide them with the up to date information on the latest methods of public health promotion, motivational education, dietary advice and cavity prevention methods. Hygienists involved in the DSH program that conducts child health sessions follow the method of motivational education. (Appendix B, more information on motivational education)

Implementation of a session:

There are four basic points that are the essence of the child health session conducted and the hygienists are required to concentrate on these points to help the individual achieve improvement in their oral health.

The main steps of approach are:

- Tooth brushing
- Healthy diet
- Fluoride application
- Professional Dental visits

Summary guidance:

A Summary guidance is provided for each and every dental hygienist involved in the program. These guide notes are placed in the form of flip charts with illustrations (Appendix A).

The flip charts (Appendix A) are used as a constant reminder easily available to the hygienists during conducting the sessions and the illustrations are used to help make the information more understandable to the parent or care giver.

Table 1: Summary Guidance for the dental hygienists conducting Child Health sessions for children aged 0-3 years

	Advice to be given	Professional intervention
Children aged up to 3 years old	1-Breast feeding provides the best nutrition for babies. Wipe teeth and gums with clean cloth or	Fluoride varnish to be placed starting from the age of 2 years

	gauze after every feeding.	
	2-From six months of age infants should be introduced to drinking from a free-flow cup, and from age of eighteen months feeding from a bottle should be discouraged. It is also important to prevent sharing of cups, bottles and tooth brushes. All saliva sharing activities should be avoided.	
	3-Sugar should not be added to weaning foods or drink, do not reward the children with sugary foods	
	4-Parents/carers should brush and supervise tooth-brushing	
	5-As soon as teeth erupt in the mouth brush them twice daily with a fluoridated toothpaste	

6-Brush last thing at night and on one other occasion

7-Use fluoridated toothpaste containing no less than 1,000ppm fluoride

The best way is to show the parents the size of the smear layer and type of tooth paste that is needed to be used.

8-It is good practice to use only a smear of toothpaste

Reassure the parents that even if the child swallows this amount of tooth paste it is irrelevant and does not cause harm. But it should not be encouraged or a habit for children to eat or swallow tooth paste intentionally.

9-The frequency and amount of sugary food and drinks should be reduced. E.g. to have one treat per day with a meal. Encourage to drink water after the sugary food, or brush whatever is more convenient

10-Sugar-free medicines should be recommended, if

sugar containing medicine is used drink water immediately or rinse. Iron containing vitamins could cause discoloration so it is best to rinse also with water after giving it to the child.

*Adapted from (Healthscotland.com/OralHealth And Nutrition Guidance)⁶

Table 2: Summary Guidance for the dental hygienists conduction Child Health Sessions for children aged 3-8 years

	Advice to be given	Professional intervention
Children aged 3-8 years old	1-Brush at least twice daily, with a fluoridated toothpaste 2-Brush last thing at night and at least on one other occasion	1-Apply fluoride varnish to teeth two times a year
	3-Brushing should be supervised by a parent/care giver	
	4-Use fluoridated toothpaste containing	

<p>Children aged 0-6 giving concern to those likely to develop caries and those with special needs.</p>	<p>more than 1,000 ppm - 1100 pm fluoride</p> <p>5-It is good practice to use only a pea size amount</p> <p>6- It is a good time to introduce the floss, use floss on the last two teeth.</p>	
	<p>7-Spit out after brushing and do not rinse, to maintain fluoride concentration levels</p>	
	<p>8- All habits should be stopped at this age (thumb sucking, pacifier, etc...)</p>	
	<p>All advice as above plus:</p> <p>9- At the age of above 6 years , use fluoridated toothpaste containing 1,350-1,500ppm fluoride</p> <p>10-It is good practice to use only a smear or pea size amount</p> <p>11-Where medication is given frequently or long term, request that it is sugar free, or rinse with water after it is used to minimize cariogenic effects</p>	<p>2-Apply fluoride varnish to teeth two or more times a year</p> <p>3-Investigate diet and assist adoption of good dietary practice</p> <p>4-Where medication is given frequently or long term, liaise with medical practitioner to request it is sugar free, or used to</p>

*Adapted from (Healthscotland.com/OralHealth And Nutrition Guidance)⁵

Tooth brushing-

- Information on the appropriate tooth paste to be used (age related, fluoride doses, quantity);
- Information on the appropriate tooth brush to be used (age related, convenient grip, replacement, cross infection);
- Information on the tooth brushing technique (for the child and parent, position)
- Live demonstration for the parent.
- Ideas to encourage both parent and child to perform tooth brushing (tooth brushing charts, use of devices to time the brushing, etc.)

Healthy diet-

- Breast milk vs formula: There is no evidence to suggest that breastfeeding or its duration is independent risk factors for ECC. Due to the health benefits of breastfeeding and the lack of consistent evidence linking breastfeeding to the development of caries, dental hygienists should encourage breastfeeding over bottle feeding. Children who use a bottle, not only at mealtimes, but also to go to sleep and for comfort at other times during the day, have a significantly higher risk of developing caries.
- No sugar diet.
- Use of cups: A cup can be introduced at six months of age in preparation for weaning from the bottle at around 12months. It is important to give the proper advice on the content of the cup to parents. Cups should be used to drink water and milk only. Limitation of fruit juices in the cup is important to

prevent early childhood caries. Introducing the cup at an early age allows the parent to avoid poor appetite for food and gives the child the opportunity to get all the daily essential nutrients from food. There is a risk of iron deficiency if milk is consumed over and above the child's daily needs. In some cases, when bottles are demanded through the night, overeating and excessive weight gain can occur.

- Sugary food should be contained within meal times and in limited quantity.
- Healthy substitutes. Healthy foods with high nutritional value, such as cheese, vegetable sticks, fresh fruit, yoghurt, custard, wholegrain sandwiches and soups should be encouraged.

Fluoride varnish application-

- What is fluoride varnish, why we apply it?
- How many times do we apply fluoride varnish?
- What is the recommended dose for fluoride varnish?
- How to apply Fluoride varnish?
- Instructions after placing the fluoride.

What is fluoride?

Fluoride is a very safe material to use. Fluoride is a naturally occurring element and is present in some water supplies around the world. Fluoride protects the teeth from acidic and bacterial attacks and strengthens the teeth to resist these attacks.

Fluoride varnish application

The fluoride varnish application in the DSH program will be offered twice a year. The fluoride is available in the vaccination clinics for everyone, whether they are eligible for free dental treatment or not, in the dental clinics of PHC.

This step ensures that the inequalities of offering dental treatment will be eliminated since each and every child living in the Emirate of Dubai will be entitled to two doses of fluoride per year. This achieves an important step towards decreasing the possibility of wide spread phenomena of dental caries disease. Fluoride application is in relation to the calcification timings of teeth, to give the maximum benefit of the fluoride incorporated within the tooth structure for improved caries resistance.

Table 3: Calcification timings of Primary teeth

Tooth	Central incisor	Lateral incisor	Canine
Calcification begins (age in months)	4 months	12 months	5 months
Calcification ends (age in months)	2.5 years	3 years	3.5 years

*Adapted from (British Association for the Study of Community Dentistry)

Table 4: Calcification timings of Permanent teeth

Tooth	First premolar	Second premolar	First molar	Second molar
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Calcification begins	24 months	30 months	Birth	3 years
Calcification ends	4 years	4.5 years	2 years	5 years

*Adapted from (British Association for the Study of Community Dentistry)

Appropriate dose for children under the age of 6 years is 0.25ml of varnish. For children over 6 years the recommended dose is 0.4 ml.

The toxic dose of fluoride would be 5mg per Kg of child weight. Check any medical history with the parent, specifically check for allergy to sticking plaster or severe allergy or asthma that has required hospitalization.

A protocol for applying the fluoride is followed which is adapted from Childsmile preventive program NHS Scotland. This ensures that the maximum benefit is obtained from each fluoride application session.

Preparation

- place your equipment so that it is accessible for yourself but away from the child;
- dispense 0.25ml or 0.4ml of varnish and ensure that the remaining varnish remains inaccessible to the child;
- welcome each child and explain the procedure in simple terms;

- ensure you and the child are comfortable and the child is wearing safety glasses(if appropriate) and bib;
- Apply your own safety glasses, and follow local hand hygiene policies.

Risk assessment

The extra-oral assessment:

- Check the skin of the face and around the mouth for abnormalities (spots, inflammation, swelling etc.);
- Check the lips for lesions/infections.

The intra-oral assessment using the “lift the lip” method:

- Check the inner cheeks and the insides of the lips;
- Check the upper and lower surfaces of the tongue;
- Children showing obvious signs of systemic illness (e.g. colds, flu) or any abnormality of the face, lips or soft tissues of the mouth should be excluded on the day from fluoride varnish application;
- Check the teeth and gums in a systematic order for signs of decay and/or infection;
- If everything appears normal the fluoride varnish may be applied. If the child has signs of decay, the fluoride varnish may be applied as it may help protect from further decay and it will acclimatize the child to dental treatment. However, fluoride varnish should not be applied to exposed pulps, as it is uncomfortable.

The application procedure

A systematic approach is more important than adopting a specific order or technique. However, the following represents one method, which could be followed:

- if a child gets upset or protests during any part of the procedure, then the procedure should be abandoned;
- gently retract the right cheek with your finger or mirror and dry the upper right canine and molars with a cotton roll or gauze;
- Lift the upper right buccal sulcus with your finger or a cotton roll if possible;
- holding the roll in place, apply a small amount of Fluoride Varnish to the buccal, palatal, approximal and occlusal surfaces of the molars;
- remove the cotton roll;
- Retract the upper lip with a finger. Dry the incisor teeth with a cotton roll or gauze;
- apply varnish to the buccal, approximal and palatal surfaces of the canines and incisors;
- repeat for upper left;
- repeat process for whole lower arch;
- if there is insufficient varnish for full lower arch give priority to buccal, approximal and occlusal surfaces of molars on both sides of the mouth;
- Ensure all equipment is removed from the mouth. Count four cotton rolls(if used), one brush, gloves, and place all disposable equipment in the clinical waste bag;
- Complete patient record (on paper or electronically). If any immediate allergic reaction, remove product by tooth brushing and rinsing and follow

local protocol. Fill in the incident report and adverse drug reaction form available on file net. Please note down on the patient file;

After care advice: to make sure that the maximum benefit of the application is gained, parents or caregivers are given specific, simple and easy to follow instructions.

- Child should not be given any form of systemic fluoride for two days after she/he receives the varnish application;
- The child must not eat or drink for half an hour after the application;
- Soft diet on the day of the application, which will help the fluoride to stay on the teeth for longer;
- Inform the parent that the teeth may appear discolored and that it is temporary. Ask the parent not to brush the teeth of the child on the day of application, but from the next day the tooth brushing should resume. Please reinforce on this information.

Professional dental visits:

Dentists provide parents with information to promote oral health and to help them to prevent dental decay in their children.

- It is important that the child get familiar with the dental setting;
- Follow up appointments are important for the child and will enable the dentist to keep a record of the oral health condition of the child;
- If tooth decay is caught early enough, the damage can be reversed with home care and fluoride treatments.

Oral Health promotional activities:

Dental hygienists extend their roles to be more interactive with the public and ensure that the promotion of oral health reaches the maximum population. There are a chain of well-maintained and periodic activities that they plan and are

involved in. These activities are essential to have good oral hygiene messages continuously reaching the community. Their involvement in such activities allows them to have a better insight on the problems and concerns of the individuals that are the core of the community.

This will also allow them to address these concerns or difficulties and concentrate on them more to help changing the attitudes and misconceptions related to oral health importance and its effect on the overall well-being.

Oral Health Campaigns

These campaigns are run monthly in several locations in an attempt to cover all the population of Emirate of Dubai. The campaigns are linked to themes that affect the community and are in relations to events or occasions important to the public. During these campaigns hygienists concentrate on the four basic points for a healthy oral cavity:

First Task: Tooth brushing

Oral Development: How Teeth Grow:

- 4-7 months: two middle ones on the bottom (lower central incisors).
- 3 years: child has a full set of 20 primary teeth, also known as baby teeth.
- 6 years: child starts losing his teeth.

During these years, the oral cavity contains both deciduous and permanent teeth as one type replaces the other.

1-A slide show with simple pictures for the patients to see.

2-Models and tooth brushes

- How to brush: live demonstration and slide show

3-What kind of tooth paste to use for each age group and type of tooth brush:

- children who have their first tooth should start with a small soft tooth brush, and a pea size amount of fluoridated toothpaste with no more than 1000 ppm
- Children who are older than two until six should use small amount of tooth paste with fluoride of 1450ppm. Appropriate size brush (found on label of tooth brushes commercially available).

4- All about the tooth brush:

How many times to brush:

- all ages should brush at least two times a day with emphasis on the night time brushing

Cleaning and caring of the tooth brush:

- Tooth brushes should not be shared, and should be washed properly after every use and stored properly.
- Brushes should be changed every three months or when there appears to be wear. (Bristles start to spread).

Second Task: Fluoride education and advice

What is fluoride:

Fluoride is a natural occurring material found in nature and in many foods and water.

Why we use fluoride:

Fluoride makes the teeth stronger and helps protect it from the acid attack of the foods and bacteria in the mouth that cause the teeth to have cavities

When to use fluoride varnish:

Fluoride can be used when the first tooth appears, the proper quantity placed on the tooth to protect it by professional dental staff.

Where can you get fluoride:

Fluoride is available in the dental clinic, during child health sessions while you visit your doctor for your child's vaccinations and dental visit of health advice session with the hygienist. It is placed on the same day like paint, on the teeth.

Third task: Diet advice

What foods are cariogenic?

All forms of foods that have sugar (sweets, candy, chocolates, biscuits, jelly beans, carbonated drinks, and sweetened fruit juices)

What habits are cariogenic:

All day snacking, drinking sweet drinks from baby bottle, baby bottle with milk during the sleeping time,

Healthy alternatives:

- Confining these types of foods during meal times and in small quantities.
- Making one day a week " sweet day where the child can eat sweets and avoid it during the rest of the week,
- Replacing the sweet drinks in the baby bottle with water and milk only during the day.
- Replacing the night time bottle feeding of milk with water.

Fourth task: The role of periodic dental visits

- It is important to visit child health/dental clinic for regular check -ups and fluoride varnish treatment to protect the teeth and prevent it from cavities.

Addressing misconceptions of the public:

- Fluoride is a very dangerous substance :

No it is not! Fluoride is a natural material found in the nature and is useful for the teeth.

- If we applied fluoride on the babies teeth then it is strong enough so that no need to brush them:

No! There is no alternative to brushing; fluoride helps with brushing properly to prevent decay.

- Mothers have to start brushing for the baby at the age of 2 years :

Not correct! Brushing should start with the appearance of the first tooth, or at least use a cloth to wipe the teeth after each feeding.

- Children can start brushing by their own on the age of 4 :

No! to have good results of brushing children need to be supervised at least until the age of 7 or 8 and should spend at least two minutes to brush the teeth.

- Milk does not cause caries :

NO! There is natural sugar in the milk which causes decay, therefore milk should be avoided during the night when the child is sleeping, also don't forget to brush or wipe the teeth after each feeding.

- We should give our children small portions of food continuously during the day to prevent teeth cavity :

NO! Snacking should be confined at meal times only and to try to give healthy alternatives such as vegetables and fruits.

- The best amount of tooth paste is as long as the tooth brush size :

NO! Tooth paste amount depends on the age of the child, until six give pea size amount of appropriate fluoridated tooth paste.

➤ Brushing takes 1 min only:

It is best that brushing takes two minutes use a song or story that takes two minutes while the child is brushing his/her teeth.

➤ Children have to rinse carefully after brushing:

It is recommended that the child only spit out the tooth paste to have the best effect of tooth paste.

➤ Parents have to start weaning babies from bottles at the age of two:

It is recommended to start whenever the child is capable to sit upright and can hold item in their hands.

➤ No need to visit a dentist at early ages:

Visiting the dentist is recommended with the first tooth appearing to have proper advice and care.

Appendix A: Hygienist guide Flipchart

Appendix B: Motivational education

Motivational education:

There are a large number of literatures that proves the regular methods of giving instructions to the public have shown to be an ineffective method. Therefore motivational education is a successful alternative to the classical approach.

There are many advantages to this method of approach.

- Motivational interviewing is a form of collaborative conversation for strengthening a person's own motivation and commitment to change.
- It is a person-centered counseling style for addressing the common problem of ambivalence about change by paying particular attention to the language of change.
- It is designed to strengthen an individual's motivation for and movement toward a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion.
- establish rapport/trust.

- ask questions to help parents identify the problem and listen to what they say.
- encourage parents and prepare them for change by discussing the hurdles that may interfere with action.
- respond to resistance and prepare them for the inevitable bumps along the road.
- Schedule a follow up appointment.

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