

Program Script for Prof. Coruh Turksel Dulgergil (Aired on 08 November 2009)

Category: Health
Location: Kirikkale

What are these children doing?

They are not in a physical education class, nor a ceremony rehearsal. These hundreds of students are waiting for the sign of Prof. Dulgergil to brush younger children’s teeth.

Prof. Dulgergil making an announcement to students:

Prof. Dulgergil: “Does everybody have gel on their brushes? You will repeat the application 3 times. The kids may get nauseous, don’t worry, you can make them spit the gel out without asking us. Let’s start!”

84% of elementary school students in Turkey have at least one decayed tooth and 18% of them are not in the habit of brushing their teeth.

And according to recent research, only 23% of children who are not in the habit of brushing their teeth before the age of 6 become adults who brush their teeth regularly.

It goes without saying that this lack of habit reflects negatively to the overall health of the population.

In Turkey, tooth decay ranks first among the most commonly encountered health problems for children between the ages of 6 to 12.

And sadly enough, Turkey ranks very low in its population’s health condition among European countries.

In Turkey, people’s teeth are not shining as they seem to in commercials. However, in the province of Kirikkale, a project is in effect in order to change this ill fate.

Needless to day, there is a true Changemaking story behind this dental health campaign that expanded to various provinces of Turkey.

Prof. Turksel Dulgergil is currently the Associate Dean of the Dentistry Faculty at Kırıkkale University. However, his main working location is not his office at the university; it is in elementary school classrooms.

Prof. Turksel Dulgergil started doing field work for his PhD thesis in 1997, while he was working in the province of Diyarbakır.

The poor dental conditions of children he came across during his field work changed the way he perceived life and his profession.

Prof. Turksel Dulgergil to Students:

Prof. Dulgergil: “There are many small strings that tie your gums to your bones together. Although you don’t notice it, you are strengthening those strings also. The more you strengthen those strings, the more you strengthen your teeth. tooth decay is not the only issue.”

Interview with Prof. Dulgergil:

Prof. Dulgergil: “The behaviours and cleanliness of children you come across also reflects in their oral and dental health. There were so many children suffering from tooth decay. This is not only the case in Diyarbakır; we experienced the same conditions in many other provinces.

After seeing those poor conditions, you feel obliged to make a decision. You either think “I am not going to be bothered by this at the moment, we will deal with it later”, or you ask yourself “What can I do to help these children?”

Unlike most people, he did not stay indifferent to the situation. Prof. Dülgergil, started to work on a simple, protective and sustainable project that to improve children’s dental health.

While doing research on the topic, he came across a method that is widely used in many European countries.

Interview with Prof. Dulgergil:

Prof. Dulgergil: “I came across a very interesting fact while doing research on how to prevent tooth decay among children. I found out that tooth decay was very widespread in many European countries after World War II, especially during 1950s.

I wanted to find out what those countries did to fight tooth decay. And I read about a method that is widely used in Switzerland since 1959.

They were applying a good-tasting gel that contains high levels of fluorine to children’s teeth by using a toothbrush.

In 2004, Poland also implemented this method. During 1970s and 80s, countries like France and Finland were also using this method not only to protect children from tooth decay, but also to help them gain the habit of toothbrushing.

After reading related scholarly articles,we asked ourselves: “Why don’t we do this in Turkey?”

Prof. Turksel Dulgergil started an extensive research on the fluorine gel application project which is widely implemented in many European countries.

The fluorine gel, which is sold in pharmacies all over Turkey, provides elementary school children a healthy teeth-growing process if applied 4 times a year.

It does not entirely prevent tooth decay, but reduces its chances by 30% and helps children get in the habit of brushing their teeth.

After obtaining required permits from local health and education authorities, Turksel Dulgergil began to implement the fluorine gel project.

He purchased the first toothbrushes and tubes of gel from a local pharmacy with his own means.

17 USD worth of fluorine gel was sufficient for 500 children. So he went to an elementary school and began to brush children’s teeth one by one.

However, as he realized he cannot brush every child’s teeth by himself, he decided to train elementary school teachers in villages.

After training the teachers on this simple method, he started going school by school to hand out toothbrushes and tubes of gel, which were purchased by the local health authority.

Interview with an elementary school teacher:

Interviewer: Have you ever applied this gel before?

Teacher: No, we make them brush their teeth, but we have never used this gel before. Prof. Dulgergil gave us a seminar on the application of this gel. We were aware beforehand that we were going to apply it.

Interviewer: Do you still make children brush their teeth when we are not here?

Teacher: Yes of course, you just saw our toothbrushes in a box. Children are very enthusiastic about it. They got used to it. They feel the need to brush their teeth after eating something. They don’t even need us to remind them.

Interviewer: Do they seem to be more aware about their dental health?

Teacher: Yes, they are definitely more aware. They try not to eat sweets or chocolate in order to prevent tooth decay. Their parents are more aware about the issue also. We are trying to educate our students with the help of their parents.

Interviewer: What type of questions do they ask you about dental health?

Teacher: They ask me about things that cause tooth decay and things they should and should not eat. They want to know how to prevent tooth decay. We try to answer all of these questions. We recommend them not to eat sweets especially after brushing their teeth.

Interview with a 1st Grade student:

Interviewer: Do you know why you are brushing your teeth?

Student: Yes I do...so that my teeth can stay healthy. This toothbrush is to keep our teeth strong, healthy...We have to keep this toothbrush very clean!

Interviewer: What happens if we don’t?

Student: If we don’t, we will have tooth decay.

Interviewer: Do you brush your teeth regularly?

Student: Yes.

Interviewer: When do you brush them?

Student: After eating, after going to bed at night, after waking up in the morning, after going to school, after washing my hands..

Interviewer: So you are constantly brushing? You are missing some teeth though, what happened?

Student: That’s because I don’t brush my teeth.

Interviewer: What did the doctor say?

Student: The doctor said I will have new teeth coming out.

Interview with another 1st Grade student:

Student: I cannot read now, but I will be able to in 2nd grade.

Interviewer: So you cannot read now but you will be able to next year? Well, do you brush your teeth?

Student: Yes. Because we want to have healthy teeth

Interviewer: What would happen if you don’t brush your teeth?

Student: If we don’t, then we would have tooth decay and our teeth would fall off.

Interviewer: Well, do you know what types of food would cause tooth decay?

Student: Lollipops, candy, sweet stuff in general...If I start eating naughty food, they will start causing tooth decay.

As time went by, this project initiated by Prof. Turksel Dulgergil caught the attention of other provinces’ health authorities.

Through the Rectorship of Kırıkkale University, they started to invite Prof. Dulgergil and his students to their respective provinces.

Interview with Prof. Dulgergil:

Prof. Dulgergil: “Other provinces started to ask about our project through the Rectorship of Kırıkkale University. First the Governorship of Kütahya, then Afyon, and shortly after that, Kahramanmaraş sent formal invitations to the Rectorship. Provinces of Mersin, Bitlis

and Urfa have also recently implemented the project. We are going to be able to reach 15,000 children in Urfa.

We did not reach rural areas yet, but we were still able to reach around 75-80 thousand children; maybe even 100 thousand. (Kırıkkale: 2320 children, Kütahya 6000 children, Ağrı 4500 children, Adıyaman 3600 children, Afyon 4000 children, Bitlis 1100 children...)

There is a very important detail here: Every year, a new generation enters the cycle. Every year we have a new grade coming out of the cycle, and a grade coming in.

We are currently active in a total of 20 cities and counties across Turkey.”

Today, this project initiated by Prof. Dulgergil expanded to many provinces such as Mersin, Bitlis, Adıyaman and Ağrı with the help of their local health authorities.

The fluorine gel application aims to protect 1st Grade children’s newly-grown teeth. It is implemented 4 times a year for 4 years, and when these students reach the age of graduating from elementary school, they are at least partially protected from tooth decay.

With the support of numerous school principals in Kırıkkale, it is Grade 6 students who apply the fluorine gel to their younger friends’ teeth.

Thereby, Grade 6 students actively participate in the application process while being encouraged to gain the habitude of toothbrushing themselves.

Interview with a high school student:

Student: With a toothbrush, I applied the gel to their lower teeth in order to make them clean. We did this for 2 minutes.

Interviewer: What are the benefits of this?

Student: It prevents tooth decay and bleeding gums and helps us have healthier teeth in the future.

Interview with the Principal:

Principal: Education is not only about teaching a class. It also consists of teaching our students good behaviours and skills in order to help them build a better future. We think that’s very important.

Interviewer: How were the students affected by this project? Are they more aware of their dental health now?

Principal: First of all, cases of tooth decay are decreasing. At the same time, our students gained the habit of brushing their teeth. They became more sensitive about their health. We are witnessing these changes at our school.

Prof. Turksel Dulgergil’s project is receiving a great deal of support from the Ministry of Health and Kirikkale University.

As a matter of fact, Kirikkale University included this project in its curriculum and its sustainability is under the guarantee of the Rectorship.

Interview with the Rector of Kirikkale University:

Rector: “The most important aspect of this project is that it is a community-based project. Our university supports this project as it is also science-based. A university cannot go beyond being an educational institute unless it strives to design projects for the benefit of its own city and region.

This project is being supported by many organizations including the Ministry of Health and Ministry of Education. We are witnessing many benefits from the application of fluorine gel. At least 3500 elementary school students are protected from tooth decay.”

Interview with Prof. Dulgergil:

Prof. Dulgergil: Our Health Minister showed a great deal of attention to our project and invited me to his office last February. We talked for approximately an hour. He said: “This is a very nice, sustainable project and it makes great sense that you are including the families in the process also. But what is the percentage of prevention that this method will provide?”

All scientific research shows that the prevention percentage is around 30-32%. However, our project here reached 60%. This is very normal as we introduced fluorine to a

population who never used it before. Therefore, we obtained a higher percentage of prevention.

I said: “We will provide 40% prevention”. He replied: “Dear Teacher, let alone 40%, 30%, 20%, if you can provide 5% for Grade 1 and 2 students, you will help me save 1,1-1,6

million USD”. This is how the Ministry approaches this topic. They are very sensitive about it.

Rather than “why are you doing this?”, the Ministry’s approach was more along the lines of “how can we expand this project?”.

We have to adopt a central education system after this point. Every county, if not every city will select 2 or 3 doctors to attend a 10-day workshop in Kırıkkale, where they will be trained on the application of this method. We have to educate our teachers, high school students, and even Nursing School students.

Given the fact that students of Nursing School will be the nurses of tomorrow, we can create a multiplier effect and achieve so many great things. I believe that our problems can be solved through education.

Prof. Turksel Dulgergil witnessed many dental health issues during his field work and decided not to stay indifferent to them.

He started working with his own means and initiated a project. He dedicated many hours working so that children can smile healthily.

He ignored everyone who objected him and who thought this project was not achievable and made a difference in the smiles of thousands of children.