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# The Practice of Dental Hygiene Internationally

Elisha Marcella Parraz

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**THE PRACTICE OF DENTAL HYGIENE INTERNATIONALLY**

**by**

**ELISHA M. VALDEZ-PARRAZ**

**B.S., DENTAL HYGIENE, THE UNIVERSITY OF NEW MEXICO 2010**

**THESIS**

Submitted in Partial Fulfillment of the  
Requirements for the Degree of

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Dental Hygiene**

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Albuquerque, New Mexico

**Fall 2015**

# THE PRACTICE OF DENTAL HYGIENE INTERNATIONALLY

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## ABSTRACT

**Purpose:** The purpose of this research is to evaluate how dental hygiene is practiced, taught and valued in twenty six countries internationally as compared to the United States. Dental hygienists who are practicing abroad, plan to relocate internationally or those that treat diverse patients will benefit from reviewing this study.

**Hypothesis:** The selected global countries and the United States have similarities and differences when comparing the topics of the funding of dental care, who actually performs the oral prophylaxis, beliefs in community water fluoridation, oral homecare techniques, customs and degrees offered.

**Methods:** The method used for this study include utilizing the twenty- six member countries from the International Federation of Dental Hygienists. An association member from each country will receive a short, ten question survey that will validate the described standards and practices in these countries. The questions will pertain to the scope of dental hygiene practice in each country, the types of academic degrees offered, community water fluoridation practice acts and cultural influences on oral health. The results will discuss the similarities and differences of international dental hygiene and compare them to those of the United States.

**Results:** Out of the twenty-six countries that are active members of the International Federation of Dental Hygienists, Canada, South Africa and Finland participated in this study. Each member received a ten question survey about the practice of dental hygiene.

**Conclusion:** The findings of this study suggested that there are more similarities among the three nations on the topic of dental hygiene practice. There are few differences that each country identified which included: public water fluoridation, recall system and modalities that make their country distinctive. However, education, degrees obtained, cultural beliefs, dental methods used and the lack of government funding for dental care are generally in common.

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# **Chapter I**

## **Introduction**

The profession of dental hygiene varies among countries worldwide. The way in which dental hygiene is practiced, promoted and valued by the public differs among multiple cultures. Many factors determine how and why these countries practice dental hygiene differently than the United States. These factors include regulations, educational influences, cultural beliefs and importance of oral health in each society. It is important to understand the dental hygienist's scope of practice worldwide to better treat those who come from other countries as well as to educate hygienists that are interested in working abroad. In addition, there may be influential care techniques that the United States can gain knowledge about and possibly incorporate them into daily practice.

The International Federation of Dental Hygienists (IFDH) is an organization which includes twenty-six countries that practice dental hygiene overseas including the United States. The IFDH is an international, non-governmental, non-profit organization. It unites dental hygiene associations from around the world in their common cause of promoting dental health.<sup>1</sup> This study examines the United States practice of dental hygiene compared to those countries abroad. The countries include: Australia, Austria, Canada, Czech Republic, Denmark, Fiji, Finland, Germany, Ireland, Israel, Italy, Japan, Korea, Latvia, Malta, Netherlands, Nepal, New Zealand, Norway, Portugal, Slovakia, South Africa, Sweden, Switzerland and United Kingdom.

<sup>1</sup>This review will explore the comparison of the United States to international countries covering the topics of dental hygiene practice, fluoridation acts, myths and beliefs about hygiene, the

value of oral care, home practice techniques, scope of dental hygiene, educational degrees offered and the role culture plays on oral health.

### **Statement of the Problem**

The general research question investigated in this study is: What differences and similarities are there on the topic of dental hygiene when comparing twenty-six countries to the United States?

### **Sub-Problems**

- How is dental hygiene practiced internationally compared to the United States?
- Does culture play a role in oral health?
- Do other countries believe in the education and prevention of early childhood caries also known as “baby bottle syndrome?”
- Do other countries have the same type of prophylaxis recall system?
- Does the belief in water fluoridation play a role in the community’s oral health?
- For each country what types of degrees are offered internationally?

### **Significance of Problem**

The significance of this study is to educate dental hygienists that work in the United States about the practice of hygiene internationally. Understanding the differences and similarities in the practice of dental hygiene worldwide can assist the hygienists abroad and those in the United States when working with those patients that come from other countries. There are multiple advantages to being knowledgeable about dentistry abroad. Some include the reality that there may be techniques or traits that the United States can learn from other countries regarding the practice of dental hygiene. Another benefit is that this knowledge will allow dental

hygienists to better treat those patients that come from a country abroad and allow a better understanding of the patient's personal oral habits. Another advantage is that those hygienists that are interested in practicing or studying in other countries will have a better perception of dental treatment worldwide.

The United States today is known as a highly developed, technologically advanced country as compared to those that are less developed.<sup>2</sup> Advancement in education allows many dental hygienists from the United States to assist in teaching and working in countries abroad. There are many advantages to helping those that are in need of our innovative expertise in the medical field. The United States may have a tendency to fail to recognize methods that can be gained from different techniques worldwide.<sup>2</sup> It is significant to review this literature and to educate dental hygienists that practice in the United States to embrace any unknown treatment techniques that can be utilized from other countries.

The demographics of the United States have changed dramatically, creating a more diverse patient population.<sup>3</sup> In order to provide better treatment, the dental hygienist needs to recognize that patients come from different backgrounds and cultures.<sup>3</sup> It is imperative that the practitioner be open-minded to cultural- specific patient options, health beliefs and values. The goal of cultural competency is to improve communication, realize the impact of oral health in others and to reassure the patient who comes from a distinctive background. It is essential that the dental hygienist understand the scope of dental hygiene practice in other countries to gain further knowledge about their diverse patients. This allows the patient to have a more comforting experience. The hygienist can relate and show an understanding of various oral care values.

The dental hygienist that is interested in studying or practicing abroad will gain an enhanced perception of the field worldwide and will be made aware of the differences prior to

relocating. When contemplating foreign employment, a dental hygienist must learn about the country, learn the laws and regulations, obtain a valid passport, visit a physician for a health status, acquire any immunizations that are mandatory and obtain a working license. <sup>4</sup> The International Federation of Dental Hygienists is an ideal website to begin researching working outside of the country.<sup>4</sup> It is suggested to gain work experience in the United States prior to relocating overseas. This will help obtain the higher paying positions and enhance self-confidence. It is important to be knowledgeable about dental hygiene practice overseas for those that aspire to travel and work out of the country.

### **Hypothesis**

The selected global countries and the United States have similarities and differences when comparing the topics of the funding of dental care, who performs the oral prophylaxis, beliefs in water fluoridation, oral homecare techniques, customs and degrees offered.

### **Operational Definitions**

1. Oral Prophylaxis- cleaning of the teeth by a dentist or dental hygienist, including the removal of plaque biofilm, materia alba, calculus and extrinsic stain. Performed as a preventive measure for control of periodontal disease.
2. Dental Hygienist- a member of the dental profession, who specializes in preventive oral health.
3. Dental Therapist- Dental therapists practice under a dentist's supervision and are trained to do such things as fill cavities, place crowns, give local anesthesia and, in some cases, extract teeth.

4. Academic Degree- an award conferred by a college or university signifying that the recipient has satisfactorily completed a course of study.

### **Assumptions**

- It was assumed that all twenty-six countries received the survey.
- It was assumed that the list containing names and addresses of the twenty-six county members are correct and up to date.
- The county members have all of the correct information regarding their knowledge of the country that they represent in order to accurately answer the survey.

### **Limitations**

- There are only twenty-six countries that are members of the International Federation of Dental Hygiene.
- This study was a limited research paper and excluded many different topics about hygiene in each country.
- The survey is written in English. A language barrier may be a limitation to this study. However, English is the chief language spoken within the representative members for each country.

### **Methodology**

The method for this study includes gathering information from the twenty- six member countries from the International Federation of Dental Hygienists. These countries will include:

Australia, Austria, Canada, Denmark, Fiji, Finland, Germany, Ireland, Israel, Italy, Japan, Korea, Latvia, Netherlands, New Zealand, Norway, Portugal, Slovakia, South Africa, Sweden, Switzerland and United Kingdom and the United States. An association member from each country will receive a short, ten question survey that will validate the described standards and practices in these countries. The questions will pertain to the scope of dental hygiene practice in each country, the types of academic degrees offered, the values of the population regarding dental hygiene and cultural influences on oral health. The results will discuss the similarities and differences of international dental hygiene and compare them to those of the United States.

## **Chapter II**

### **Literature Review**

#### **Introduction**

The review of the literature aims to broaden the understanding of the practice of dental hygiene worldwide. The scope of practice and limitations are researched. There are many duties and responsibilities a dental hygienist performs that may be different abroad as compared to those in the United States. The information covered in this review includes the dental hygiene scope of practice, educational degrees offered and different multi-cultural values and beliefs that influence a patient's oral health. The similarities and differences will be discussed. This will allow hygienists in the United States to gain an enhanced perspective of how preventive treatment is offered abroad, thus delivering better treatment to the diverse patients that will be seen in private or public practice. It will also serve to educate those that desire to work overseas.

#### **Scope of Dental Hygiene Practice**

In the United States, the scope of practice includes: Assessment, Dental Hygiene Diagnosis, Planning, Implementation, Evaluation and Documentation. Within these categories, the dental hygienist is allowed to expose radiographs, provide non-surgical periodontal therapy, education, tobacco cessation, nutritional counseling, complete prophylaxis, which is the removal of plaque biofilm, calculus and stain deposits from the supragingival and subgingival surfaces of the teeth by scaling, root planing and polishing, place sealants, and administer anesthesia in accordance with state provisions.<sup>5</sup> Similarly, registered and licensed dental hygienists abroad practice a majority of the same tasks as compared to the United States.<sup>6</sup>

The practice and role of a dental hygienist internationally is very similar to the United States.<sup>6</sup> In Australia, the dental hygienists are known as registered dental care providers, oral

health educators and clinical operators.<sup>7</sup> They practice under clinical guidance or direct clinical supervision of a dentist. The dental hygienist practices in public sectors such as schools and community health centers.<sup>7</sup> In Korea, a dental hygienist is referred to as “a professional who helps community residents and those with dental diseases to have their health improved through dental health education, preventive dental treatment, dental clinic co-operation and management support at dental clinics and hospitals, community health care centers and research.”<sup>8</sup> In most parts of Africa, dental hygiene is not commonly practiced. However, dental hygienists that practice in South Africa have the continuous challenge of implementing preventive dentistry due to the extremely high cavity rate that is seen among patients.<sup>9</sup> Overall, the scope of practice for dental hygienists is very similar to one another.<sup>6</sup>

### **Value of Dental Hygiene**

Culture is a specific set of social, educational, religious and professional behaviors, practices, or values that an individual learns and adheres to daily.<sup>10</sup> This includes a person’s communication style, customs, dress, cultural beliefs, and societal rules.<sup>10</sup> Dental hygienists must obtain cultural competency in order to effectively communicate with patients from a diverse background. The practice of dental hygiene is a relatively new practice in countries abroad and is valued differently than the patients of the United States. The profession has only been legalized in twenty-six countries in the world according to the IFDH and is not appreciated as a routine custom.<sup>1</sup> The dental hygienist will see patients that do not value oral care as commonly as the United States does and it is imperative to be aware of value differences among cultures.

Dental hygiene in Australia is about twenty years old and a great deal of the population does not identify what a dental hygienist does.<sup>7</sup> There are many dentists in Australia but the

number of dental hygienists is very low as compared to the United States.<sup>7</sup> It is a growing and advanced field in Australia and with more community awareness the profession will grow. In Switzerland, there are three major areas that differ in treatment as compared to the United States which includes (1) the lack of private dental insurance, (2) all children are eligible for dental exams on a yearly basis and (3) dental hygienists in Switzerland have more job security than their colleagues in the States.<sup>11</sup> The residents in this country are accustomed to paying out of pocket for restorative and dental procedures. Typically, oral prophylaxes are done every two years rather than every six months.<sup>11</sup> Dental hygienists in these countries must expand their duties and participate in community based projects in order to make dental hygiene more visible in the public. In turn, more value is placed upon dental hygiene treatment. A culturally competent dental hygienist strives to recognize and incorporate different cultural beliefs and practices into the dental hygiene process of care.

### **Myths and Beliefs about Baby Bottle Syndrome**

In the United States, the dental practitioner makes it a priority to educate their patients concerning the topic of baby bottle syndrome.<sup>12</sup> This is the rapid decay of primary teeth in an infant or child from frequent exposure, for long periods of time, to liquids containing high amounts of sugar. In other parts of the world where dental hygiene is not especially recognized, the chances of children developing an elevated amount of caries is unfortunately high. The dental hygienist should be aware of this cultural influence if seen in diverse patients and be able to educate them.

In most parts of Africa, dental hygiene is not commonly practiced.<sup>13</sup> Dental hygienists that practice in South Africa have the continuous challenge of implementing preventive dentistry due to the extremely high cavity rate that is seen amongst children.<sup>13</sup> Culture plays a huge

influence on caries and sugar is exceedingly available in rural areas. It is a common adjunct to their diet. The level of the mother's scholastic education also contributes to the higher amount of caries.<sup>13</sup> In contrast, Canada values the same tradition as far as educating mothers of the risks of baby bottle syndrome. The Canadian dental hygienists support the research and educate patients on this matter, as well as the nurses and doctors.<sup>14</sup> Like the United States, Canada has a greater chance of preventing this occurrence than other parts of the world.

### **Cultural Influences on Oral Health**

Culture plays an important role in society. Every culture has its own customs which may have a significant influence on health and oral health. The United States is the most diverse nation in the world. Practicing the quality of cultural competency in a dental hygiene setting will incorporate a patient's social diverse background into the hygiene process of care.<sup>15</sup> When presented with a patient that comes from a different background, the dental hygienist should offer support, encouragement and avoid imposing their own beliefs on the patient. The hygienist has the responsibility to "serve all patients without discrimination, and avoid behavior toward any individual or group that may be interpreted as discrimination," as stated in the American Dental Hygienist's Association code of ethics.<sup>15</sup> The patient will feel a sense of comfort, eliminate fear and enhance respect for the dental practitioner regarding the treatment plan if the hygienist practices the act of cross-cultural competency.

In the United States, culture plays a major role on our oral health. The more cosmetically appealing ones teeth are, the more admired they become. Customarily, about half of the population in this country visits a dental hygienist every three, four or six months. In Japan, everyone is covered by insurance for medical and dental care.<sup>16</sup> The demand for good oral hygiene has become more socially desirable and the draw for the profession of dental hygiene is

immense. In Japan, there are reported more dental clinics than convenience stores and the need for dental hygienists is broad.<sup>16</sup> Currently, in Germany, there are no dental hygiene schools. Most of the periodontal therapists that work in this country graduate from one of the four dental hygiene schools in Switzerland. Germans are not accustomed to having a routine dental cleaning performed.<sup>17</sup> Traditionally the act of receiving an oral prophylaxis can be uncommon.

### **Fluoridation Acts**

Fluoride exists naturally in water sources and derives from the mineral fluorine, the thirteen most common elements in the earth's crust.<sup>18</sup> Fluoride in water can help prevent and even reverse incipient tooth decay. In the United States, more than 74 percent of the population has access to fluoridated water through the public water supply.<sup>28</sup> This has always been a very controversial issue and has caused an outrage in those that believe fluoride is harmful to one's health. Water fluoridation is the process of adding additional fluoride to the supply to meet the optimal level of 0.7 milligrams per liter of water.<sup>19</sup> This is the most advantageous level to prevent tooth decay. Many studies have shown that there is no proven link between fluoride and cancer risk.<sup>19</sup>

Community water fluoridation's science and practice is predominantly American.<sup>19</sup> It is also highly valued in Canada and Australia. In Japan, less than one percent of their population practices fluoridation.<sup>20</sup> They believe that this mineral should be taken at one's free will instead of forced through the community water. Many European countries have rejected water fluoridation in general, including: Austria, Denmark, Finland, Italy, Norway, Portugal, Sweden, Switzerland and Scotland.<sup>20</sup> Only two percent of Europe practices water fluoridation.<sup>20</sup> These countries in Europe have banned, rejected and stopped water fluoridation due to environmental, health, legal or ethical concerns. The following are statements from countries officials:

“Generally, in Germany fluoridation of drinking water is forbidden,” stated by a German official<sup>21</sup>, “Fluoride chemicals are not included in the list of water chemicals due to ethical as well as medical considerations,” stated by a France official<sup>21</sup>. Although the United States for the most part believes in fluoridating community water, many countries do not recognize the importance of it.

### **Home Care Techniques**

While it is common in the United States and other developed countries to use nylon and electric toothbrushes, most of the world’s population, especially indigenous countries, still use older techniques to keep their teeth clean-if anything at all.<sup>22</sup> There are many different oral homecare techniques that are used. It is important for a dental hygienist to be aware of the culturally specific methods, in order to gain a better understanding of a patient’s routine home care and to help incorporate modern techniques that have been proven effective.

In most parts of Africa, dental hygiene is not commonly practiced. In rural areas toothbrushes are rare and the most common form of oral hygiene is a “chewing stick”. This stick is pulled from a tree that is used as a brush, along with a mixture of charcoal and the unripe stem of the plantation grounded together to form a paste.<sup>23</sup> “In many regions of the world, people are cleaning their teeth with twigs, most often from oak and neem trees,” says Dr. Steven Goldberg, a dentist and inventor.<sup>23</sup> Other Muslim and African cultures use a similar stick called miswak, which naturally contains a high amount of anti-cavity fluoride.<sup>23</sup> Generally, throughout most of the other countries reviewed in this study are utilizing modernized dental products.

### **Degrees Offered**

It is beneficial to those dental hygienists that are interested in working or studying abroad to have an overview of the type of education that is offered worldwide. By having knowledge of

dental hygiene schools in other countries, this will allow hygienists to familiarize themselves of the role they will play in oral care if they relocate. Dental hygienists in the United States are required to graduate from an accredited school that offers a minimum of an Associate's degree, although a Bachelor's degree and/or Master's degree is also offered, depending on the University. They must be licensed by the state in which they desire to practice. They must be competent to pass both a clinical and written board examination. The United States offers 290 Associate degree programs, 54 Bachelor degree programs and 16 Master degree programs.

A majority of dental hygienists in Australia are employed in private dental practices and are concentrated in the major capital cities. Very few dental hygienists work in areas of the public sector. There are currently ten dental hygiene schools in Australia.<sup>24</sup> Associate's degrees, Bachelor's degrees and Master's degrees in dental hygiene are available to those that are interested in preventive dentistry. Australia offers some of the best facilities to study dental hygiene and oral health. The most common degree obtained is a Bachelor's degree in Oral Health possibly followed by a Master's degree of Dental Public and Primary Health.<sup>25</sup> In Korea there are currently thirty-five dental hygiene schools.<sup>26</sup> A majority of preventive dentistry programs include a two year technical degree throughout the country that graduates students with an Associate's degree. A four year undergraduate school of dental hygiene, a long-cherished desire of dental hygienists in Korea, was established in March 2002 which consisted of forty students. Popular majors for those students that are interested in pursuing a Master's or doctorate degrees include further education in public health administration, public health management, education and environmental science.<sup>27</sup> Generally, dental hygiene education is offered the same in other countries as it is in the United States.

## **Similarities**

The United States and other countries internationally generally share a number of common similarities. The dental hygiene scope of practice is similar in all countries. Overall, the tasks required for a dental hygienist are comparable. They share common duties, responsibilities and practice in the same types of public or private settings. Generally, the countries in this study educate their patients on the belief of “baby bottle syndrome.” They may not all go to the extent that the United States does in order to prevent it, however they are aware of educating parents on this matter. Another similarity among the countries includes the types of degrees that are offered. An Associate’s degree, Bachelor’s degree and in some places they offer a Master’s degree program which promotes the same goals of the colleges in the United States.

## **Differences**

The countries in this study proved differences among one another. The United States’ citizens generally up hold a high value for good oral hygiene practice as compared to many countries abroad. People from the United States have a routine custom of having a prophylaxis completed every three, four or six months. In contrast, other countries around the world customarily have cleanings preformed once every two years or so. They do not put as much emphasis on esthetic appearance of a bright white smile as the United States does. Since it is not routine to have preventive treatment as often, the patients seen abroad require scaling and root planning procedures more often than the United States. Community water fluoridation is not practiced in the majority of countries around the world. It primarily originated in the United States and is mainly practiced here. Some countries find the fluoridation unnecessary and potentially harmful.

Another difference among the countries in this study includes oral home care techniques. There are places around the world that still use original types of toothbrushes such as twigs, branches and homemade tooth pastes. The United States demonstrates itself as a highly advanced, technological country. With having an advantage in modern dental research, a majority of residence use an electric toothbrush, powered water picks, electric flossing device ec. Overall, there are a number of differences amongst these countries as well.

### **Summary**

In conclusion, it is important for a dental hygienist that practices in the United States to be aware of dental hygiene practice abroad. There are many differences and similarities among the countries studied. It is imperative that the comparison is made in order to better understand and treat the diverse background of patients that will be seen. There are a number of dental hygienists that are interested in working overseas and it is important for them to research the country prior to relocating. This study will demonstrate dissimilarities that will be observed. How one practices diverse culture, beliefs and values will have an immense impact on their oral health. It is the dental hygienists priority to recognize and treat these patients with great respect and proficiency.

## **Chapter III**

### **Methods and Materials**

#### **Introduction**

In this study, a ten, multiple choice questionnaire survey was sent to each of the twenty-six countries that are members of an alliance group. The International Federation of Dental Hygienists website was used to obtain the member names and contact information. This is a group of dental professionals that are actively involved in sharing hygiene information in their country. Survey Monkey was the elected program used to deliver the survey, collect data and analyze the results.

#### **Sample Defined**

Cluster sample was used as the sample method. One to two members are elected to represent the practice of dental hygiene in their native country. Each member that is chosen delivers the overall practice of oral healthcare to denote their land. This is a method in which groups or clusters of sampling units (and not individual units) are selected from a population for analysis.

#### **Research Design and Procedures**

The subjects in this study were chosen from the International Federation of Dental Hygienists. The subjects included twenty-six countries from the following continents: North America, Europe, Asia, Africa and Australia. No information was given on dental hygiene practice in the countries of South America, Greenland or the Middle East. The IFDH is an

international non-governmental, non-profit organization with the similar interest to promote unity among dental hygienists from around the world. The purpose of the federation is to promote alliance between member countries, educate those hygienists that are interested in working in neighboring nations, inform those about the practice and regulations of hygienists and to increase public awareness of oral health.

The method that was used to obtain the information included sending a ten questionnaire form to each of the country members listed on the IFDH site. All twenty-six country member representatives received the survey via email or by postage mail depending on given contact information found on the IFDH site. Survey Monkey was the software used to compose, deliver and receive the results from the participating members. Each associate was given two weeks to respond. They were also sent a follow up questionnaire for a second time succeeding the two week deadline.

### **Human Subjects Addressed**

The subjects that were addressed in this study included a member from each country that is a participating member of the federation. English is the common language of all committee members indicated by the United States personal that is employed by the IFDH.

### **Tests**

The survey was sent to a personal email account which confirmed that the survey was sent and uploaded correctly. This was to ensure that the responses would be clear and user friendly for the country member representatives.

## **Materials**

The materials used in this study included the Survey Monkey online software. It was used due to the fact that it is a simple, straight forward way to create a survey, add recipients, deliver the survey via email and collect the results. Other materials that were used included international postage stamps to deliver the survey with return postage stamps and envelopes.

## **Time Schedule**

A two week deadline was given on the information sheet that was sent out with the survey. Each member had two weeks to participate in the study if they chose to do so. After the deadline a second request was sent. In all, a total of four weeks was given to take part in the study.

## Chapter IV

### Results, Discussion and Conclusion

The following questionnaire was sent to the individual countries that are members of the International Federation of Dental Hygienists. Out of twenty six countries, Canada, South Africa and Finland responded. The intention of this study was to compare the countries internationally to the United States and to distinguish the similarities and differences about dental hygiene. However, since there were limited responses, the comparison will be made between the three countries that completed the survey.

### Results

#### Question One

Is preventive dental care funded by the government for all citizens in your country?	Canada	South Africa	Finland
a. Yes			
b. No	X	X	X
If no, is it funded for specific groups?			
a. Yes			X
b. No			
If yes, please indicate which groups. Check all that apply.			
a. Low income			
b. Children			X
c. Elderly			
d. Pregnant women			
e. Other:			

### Question Two

Who performs the majority of dental cleanings in your country?	Canada	South Africa	Finland
a. The dentist			
b. The dental assistant			
c. The dental hygienist	X	X	X
d. Other dental personnel			

### Question Three

How many months of education does a typical dental hygienist receive in your country?	Canada	South Africa	Finland
a. Six months			
b. One year			
c. Two years			
d. Four years			X
e. Six years			
f. Other:	3 years	3 years	

### Question Four

What is the most common college degree that a dental hygienist receives in your country?	Canada	South Africa	Finland
a. Certificate			
b. Associates Degree	X		
c. Bachelors Degree		X	X
d. Masters Degree			

### Question Five

Does your country fluoridate non-fluoridated community water systems?										Canada	South Africa	Finland
a. Yes, this country fluoridates non-fluoridated community water systems										X		
b. No, this country does not fluoridate non-fluoridated community water systems											X	X
If yes, what percentage of public water systems are fluoridated?										45%		

### Question Six

Is early childhood decay sometimes referred to as “baby bottle syndrome” a health issue in your country?										Canada	South Africa	Finland
a. Yes										X	X	X
b. No												

### Question Seven

**Do you have any dental hygiene practice modalities that make your country distinctive?**

**Canada:**

*Yes, the following dental hygiene practices makes our country unique:*

“Some RDH in Canada can prescribe limited antibiotics and administer nitrous oxide.

Many can administer local anesthesia and have dental hygiene practice separate from the dentist.”

**South Africa:**

“I am not aware of any dental hygiene practice modalities that make our country unique.”

**Finland**

“I am not aware of any dental hygiene practice modalities that make our country unique.”

**Question Eight**

What type of adjuncts to toothbrushes, toothpastes and floss are used in your country?	Canada	South Africa	Finland
a. Manual toothbrush	X	X	X
b. Electric toothbrush	X	X	X
c. Electric flossing device	X		
d. Water pick	X	X	
e. Prescription strength fluoride for home use	X	X	X
f. Tongue scraper	X	X	
g. Proxy brushes and interdental picks	X	X	X

**Question Nine**

**Do you feel that cultural influences in your country plays a role on a person’s oral hygiene?**

**And if, so please identify these cultural influences.**

**Canada:**

“Yes, absolutely. Various populations have cultural influences that either positively or negatively affect oral health. Examples including the use of tobacco and cultural habits including betel nut/hookah.

**South Africa:**

“Yes, absolutely. The most common is uneducated persons that do not make sure that their children are taught about the importance of oral care.”

**Finland:**

“No”

**Question Ten**

Generally, what type of prophylaxis recall system does the community practice?	Canada	South Africa	Finland
a. Three, four, six months	X	X	
b. One year			
c. Two or more years			X
d. There is no recall system			

Note: South Africa stated there is also a nine month recall system that is used in place of six months.

## **Discussion**

Canada, South Africa and Finland generally have more similarities among one another. Each country has its own distinctive trait on the topic of dental hygiene and its practice. Generally, the three nations have some similarities to the United States. It is important for a practicing hygienist to acknowledge that there are differences in oral care around the world to properly treat those patients that are seen from other countries. One must be respectful and understanding of one's cultural background, upbringing and routine habits that may affect their oral hygiene. The results of this study are discussed below.

## **Conclusion**

The findings of this study suggested that there are more similarities among Canada, South Africa and Finland in regards to the practice of dental hygiene overall. Both Canada and South Africa are not funded by the government to provide dental care to the citizens. Dental hygienists are the main practitioners that deliver preventive treatment in the dental offices in these countries. A three-four year degree is most often received in Canada, South Africa and Finland, although in Canada a certificate is also common to obtain. Early child hood decay is prevalent in all countries. The lack of parent/child education is a problem in South Africa which leads to an increased rate of decay seen in children. South Africa and Canada members feel that culture plays a major role in the value of one's oral hygiene. When asked if they felt that culture diversity plays a role in a person's oral health they stated "Yes, absolutely. Various populations have cultural influences that either positively or negatively affect oral health. Examples including the use of tobacco and cultural habits including betel nut/hookah." Betel nut is the seed

from the fruit areca palm.<sup>29</sup> Betel nut chewing is an important cultural practice in some regions in south and south-east Asia and the Asia Pacific. It has traditionally played an important role in social customs, religious practices and cultural rituals.<sup>29</sup> It is banned in Canada by the FDA but still found in Toronto shops.<sup>30</sup> The nut is crushed, placed in a leaf and chewed in order to get the same type of feeling as tobacco. This can lead to oral cancer, periodontal diseases and other systemic diseases including diabetes, asthma, high blood pressure and Gutkha syndrome.<sup>30</sup> Cultural influences in both Canada and South Africa have a negative effect on the person's oral health. Also, most of the same dental products are used in all three countries. The patient recall system is mostly the same. They use a three, four and six month recall system depending on the patient's oral condition in Canada and South Africa.

Finland is distinctive in the fact that the government funds dental care for children. Another dissimilarity that was found among the three countries included the topic of fluoridating community water. In South Africa and Finland, there is no community water fluoridation in practice. This can lead to an increase rate of caries in this country. In Canada, 45 percent of the public water is fluoridated. When asked if there were any dental hygiene practice modalities that made their country distinctive, Canada's representative replied, "Some RDH in Canada can prescribe limited antibiotics and administer nitrous oxide. Many can administer local anesthesia and have a dental hygiene practice separate from the dentist." This may not apply to South Africa and Finland, their representatives stated that it was unknown if they had any modalities that made their country different. There is a modification in the patient recall system as well. In Canada, they use a nine month recall instead of a six month recall for healthier patients. In Finland, the patient recall system that is used it typically two or more years.

In conclusion, there were more similarities than dissimilarities in regards to the practice of dental hygiene in Canada, South Africa and Finland. It is important to assess these differences in order to better relate to our patients, understand cultural differences and to possibly learn from others about their backgrounds. The practicing hygienist from the US can also incorporate potential dental methods into his/her treatment. Overall, the purpose of this study is to educate the practicing hygienist about dental treatment in other countries in order to improve patient care.

## **Chapter V**

### **Article**

#### **The Practice of Dental Hygiene Internationally**

##### **Introduction**

The United States has traditionally been referred to as the “melting pot,” welcoming people from many different countries, races and religion, all hoping to find freedom, new opportunities and a better way of life.<sup>31</sup> The practicing dental hygienist will see a diverse patient population throughout their career, including those that were born in another country including the United States. It is imperative that the practitioner strive to treat these patients with care and empathy while having an understanding of one’s personal beliefs and cultural background. It is also important to know how dental hygiene is offered in other countries for those that desire to practice abroad.

This study reviewed how dental hygiene is practiced and cultural influences and values that are adapted in different areas of the world. A wide range of countries listed from the IFDH site were researched. The topics that were addressed in the literature review included: The scope of dental hygiene practice, value of dental hygiene, myths and beliefs of baby bottle syndrome, cultural influences on oral health, fluoridation acts, home care techniques and degrees that are offered.

This review study indicated that there are more similarities than differences in the practice of dental hygiene in other countries. The study that took place was originally designed to

compare the twenty-six country members that practice dental hygiene to the United States' practice of hygiene. However, Canada, South Africa and Finland were the countries that participated in this study. The three countries were compared to one another.

### **Scope of Practice**

The United States and other countries internationally generally share a number of common similarities. The dental hygiene scope of practice is similar in all countries. Overall, the tasks required for a dental hygienist are comparable. They share common duties, responsibilities and practice in the same types of public or private settings. A hygienist here in the states can perform non-surgical periodontal therapy, prophylaxis, take and develop x-rays, apply sealants to primary teeth and apply topical fluoride. Overall, it seems that the scope of practice is very similar when comparing countries.

When asked if there are any modalities that makes their countries distinctive, Canada replied, "Some RDH can prescribe limited prescriptions, and administer nitrous oxide. Many can administer local anesthetic and have a practice separate from the dentist." It is important to know and understand if there are any differences. Especially if a hygienist is planning to relocate, they will be able to adapt to the new routine of hygiene practice in their chosen country.

### **Dental Hygiene Degrees Obtained**

The question was asked, "How long will a student go to school for in order to receive a dental hygiene diploma or degree?" In Canada and South Africa, a student will typically attend

school for three years. In Finland, they will usually attend school for four years. The most common degrees obtained in these countries is as followed: Canada-Associates, South Africa-Bachelors and Finland-Bachelors as well. This was a review of the results from the study.

Overseas, the types of degrees obtained are very similar to the ones offered here in the United States. It is important to research the scope of practice, type of schooling and value of oral care in a particular country if one is interested in working abroad.

### **Value of Dental Hygiene and Recall Systems**

The United States' citizens generally upholds a high value for good oral hygiene practice as compared to many other countries abroad. People from the United States have a routine custom of having a prophylaxis completed every three, four and six months. In contrast, in other countries around the world customarily have cleanings preformed every two years or so. They do not put as much emphasis on esthetic appearance of a bright white smile as the United States does. Since it is not routine to have preventive treatment as often, the patients that come from cultural backgrounds may require scaling and root planning procedures more often than the United States. In Canada and South Africa, a recall system is every three, four and six-nine months as compared to US. However, in Finland, a recall system is every two years or so.

By having an understanding of how dental hygiene is valued in a patients perspective, can increase ease of comfort and trust with the dental professional. It will allow an opening for communication with the hopes of following through with the treatment that is needed. The hygienist needs to be understanding with patients that may not value good oral care as much as we do and somehow come to an agreement on treatment that is both comfortable for patient and

clinician. More successful treatment will be made if the hygienist takes a step back and realizes that not everyone values good oral care as we do here in the United States.

### **The Issue of Childhood Decay**

Generally, the countries in this study educate their patients on the belief of “baby bottle syndrome” or early childhood decay. They may not all go to the extent that the United States does in order to prevent it, however they are aware of educating parents on this matter. When asked if early childhood caries is an issue in their countries, Canada, South Africa and Finland all replied yes.

Education will be the hygienist’s main duty when it comes to patients from a cultural background. There are many people in the world including the United States that do not practice prevention of early childhood decay in their daily lives, however, as educators it is our main priority to teach people of issues concerning their health.

Hygienists may have an overwhelming duty to educate people in other parts of the world, especially the underdeveloped communities. This may be a large task to take on for a hygienist from the United States because we are accustomed to teaching and practicing dental prevention while in other areas of the world this may not be,

### **Fluoridation Acts**

Community water fluoridation is not practiced in the majority of countries around the world. It primarily originated in the United States and is mainly practiced here. Some countries

find the fluoridation unnecessary and potentially harmful. In Canada, 45 percent of their public water system is fluoridated and no water is fluoridated in Finland and South Africa. It is predominately an American trait to fluoridate water and the study suggested that Canada and Australia are practicing this as well.

Fluoride is an essential mineral to help decrease the chances of getting decay. This study suggested that a majority of the world does not feel the same as the United States. Most feel that it is harmful and a bad chemical that should not be added to the community water supply. “Fluoride chemicals are not included in the list of water chemicals due to ethical as well as medical considerations,” stated by a France official <sup>21</sup>.

It is important to understand and respect the fact that not every patient will appreciate fluorides advantages. The dental hygienist will need to be respectful and understanding in the manor that it is one’s personal belief regardless of proven beneficial facts about fluoride.

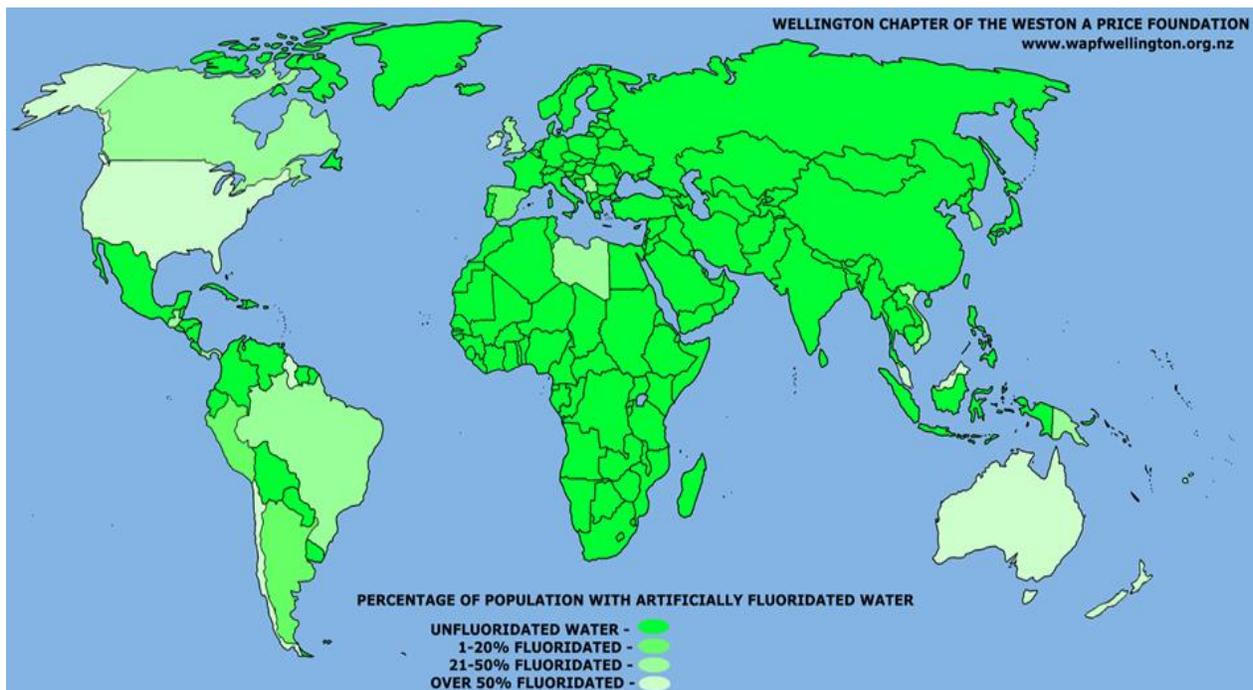


Photo cited from: [www.wapfwellington.org.nz](http://www.wapfwellington.org.nz)

## **Cultural Influences on Oral Health**

Culture plays a large role in one's overall health including their oral health. In Canada, culture does influence one's oral health. It is popular to use of tobacco, chew betel nut and smoke hookah. In South Africa, the most common culture influence is uneducated person that does not make ensure that their children are taught about the importance of oral care.

Culture plays an important part in society. Every culture has its own customs which has a significant influence on oral health. The dental care provider must be respectful of a patient culture and understand that there may be differences. The hygienist has the responsibility to "serve all patients without discrimination, and avoid behavior toward any individual or group that may be interpreted as discrimination," as stated in the American Dental Hygienist's Association code of ethics.<sup>15</sup>

## **Home Care Techniques**

There are many home care techniques that are used worldwide. The United States is the most advanced country in the world and offers many products to enhance a person's oral health. From electric toothbrushes to electric flossers, there are a wide variety of options for people. An electric toothbrush, manual toothbrush, floss, water pick, proxy brushes, prescription strength fluoride and tongue scrapers are all generally used in the countries that participated.

There may be dental products that work for some patients that the hygienist has never heard about or necessarily agrees with. Communicating with patients about homecare is critical to maintain good hygiene. There are techniques that we can educate them about, however, the

hygienist needs to be open to the fact that there are other possible techniques that we can learn about as well. Being understanding of a patient's homecare techniques will also offer the hygienist an understanding of one's current oral condition. Possible changes can be made if practitioner and patient have an understanding with one another.

## **Summary**

In conclusion, this study delivered limited insight to dental hygiene care and practice in other countries. The dental hygiene professional will treat a wide range of patients throughout their career and will need to be aware of their patient's unique background. A person's culture and beliefs will impact their oral condition and health. The topic of dental hygiene practice internationally is relevant and should be reviewed by dental professionals in order to appropriately care for others.

## **Appendix**

### **Appendix A**

#### **Dental Hygiene treatment in Moscow, Russia**

Background: A patient from Russia presented in the clinic. She was in her mid 60's and was fairly new to the United States. Her radiographs were reviewed and dental hygiene treatment plan was in place. This patient did not understand what scaling and root planning was, nor had she ever heard of it. She stated that she cleans her teeth at home alone and does not know why or what the purpose of a dental hygienist was. She declined treatment and did not return. Based on this experience, the research of this thesis evolved.

Dental hygiene treatment in Moscow, Russia a generation ago was much different than it is today. <sup>32</sup>“The average 35 year old person had 12-14 cavities, filled teeth or missing teeth,” stated Vladimar Sadovsky, the vice president of the Russian Dental Hygiene Association. <sup>32</sup> In the 1980's, he said, federal statistic showed that one quarter of the households in Russia had only one toothbrush. <sup>32</sup> “In 1991, the population did not know what a dental hygienist was, they did not even know what floss was,” said Giovanni Favero, an American dentist who trained Russian dentists. <sup>32</sup> Basic toothpastes and hard bristle brushes were available.

Today, the people of Moscow are very aware and accepting of dental technology. The pharmacies are stocked with the latest products from Colgate, Aquafresh, Crest and other name brands. They are incorporating floss and other anti-cavity products. People are adapting to the trend of a healthy, white smile and there are dental clinics which help make this possible. Men

and women are carrying floss and participating in good oral hygiene techniques. It is presented to children in schools as a common daily routine. A generation ago, a trip to the dentist was specifically made for a tooth ache, is now a common yearly routine to have a prophylaxis.

## **Appendix B**

### **Dental Hygiene Traveling Careers**

A traveling dental hygienist job is relatively new as compared to a traveling registered nurse. However, it is becoming more ideal for some people. One that wishes to travel will be assigned to work in multiple areas around the world. Permanent positions may be obtained if the opportunity allows. The International Federation of Dental Hygienists offer travel opportunities abroad.<sup>33</sup> This association provides job postings in all member nations.

#### **Pros**

- This type of work will allow one to travel and be able to practice their career worldwide.
- For someone that is adventurous and desires to see different cultures may enjoy this experience.

#### **Cons**

- For a dental hygienist that has a family, this may be difficult to travel.
- Some states require a different license depending on the state in which you plan to practice.

- There are travel career placement agencies that can help with licensing requires abroad. However, this may take time.

## Appendix C

### Tips for Treating Patients from a Cultural Background

#### Tip One: Know when and where to refer a patient that cannot afford treatment

Results from the latest US census indicates that the patient population is changing in regards to cultural backgrounds. <sup>34</sup> By 2020, 35 percent of the American population will consist of ethnic minorities as compared to today's 28 percent. <sup>34</sup> Racial and ethnic minority groups are experiencing poorer health status than others in our country. It is important for a dental hygienist to be understanding in these cases. They should also be able to inform a patient of other possible clinics in which that can be treated if not made possible by a private practice.

#### Tip Two: Communication and breaking barriers

Dental health care providers must provide a patient with a pleasant, comforting experience. Communication is the key to a successful interaction with all patients. The LEARN Model is taught in dental hygiene school and should be practiced in an everyday clinical setting.

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- *Listen* with sympathy and understanding the patient's perception of the problem
- *Explain* your perception of the problem
- *Acknowledge* and discuss the differences and similarities
- *Recommend* proper treatment

- *Negotiate* agreement

Cultural competent care requires a commitment from both doctor and other health care providers to understand and be responsive to different beliefs, attitudes, verbal cues and body language made by the patient. The clinician should make eye contact and speak in a manner in which the patient feels comfortable and content with the forthcoming treatment.

Tip Three: Training programs

Programs are provided to educate health care providers and enhance their cultural competency. These courses will describe relevant attitudes, values, beliefs and behaviors of certain cultural groups. The skills learned through this curriculum can help enhance communication and cooperation, improve clinical diagnosis and management, avoid cultural blind spots and unnecessary medical testing, and lead to a progressive depth of understanding between patient and clinician.<sup>34</sup>

**Note:** On-site trainings and web-based trainings are available. New Mexico: *The Cross Cultural Health Care Program* is available and the contact information is as followed:

Organization Name: Presbyterian Health Care Services, Location: Albuquerque, NM,

Training Information: Courses are offered several times/ year, Contact Information: Lindsay

Glick, Interpreter Services and Program Director- [lglicj@phs.org](mailto:lglicj@phs.org)

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