

**Report on Increasing Community Oral Hygiene  
Programs  
for Individuals with Special Needs**

**For**

**Janice Harrington, Alberta's Health Advocate & Mental Health Patient Advocate**

**Dr. Tobias Meiszingler, President of Alberta Dental Foundation**

**By**

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**Ms. Janice Harrington**

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**Dr. Tobias Meislinger**

President of Alberta Dental Foundation (ADF)  
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Dear Ms. Harrington and Dr. Tobias,

As per approval of the proposal submitted on June 22<sup>nd</sup>, 2022, I am submitting the report on “Increasing Community Oral Hygiene Programs Tailored to Individuals with Special Needs.” Please find the complete research report on this topic attached with this letter.

This report considers the feasibility of developing community programs specifically tailored to individuals with special health care needs (SHCNs). It also mentioned the various barriers faced by the chosen demographic in relation to dental care such as higher risk of oral health diseases and effects of oral health on overall health. The report also reveals the level of awareness between dental professionals and the community of SHCNs of current community programs available. In the end, various recommendations and conclusion have been recognized after carefully evaluating the data collected. This report shines a light on the importance of this situation and dire need to remedy the problem.

I hope that you find this report satisfactory.

Sincerely,

Rida Irshad  
UBC Student Writer

## Abstract

Nearly one billion persons worldwide are living with special needs and are at higher risk for oral health diseases (da Rosa et al., 2020). The statement of **problem investigated** in this research is that many of the dental concerns that arise with the chosen demographic can be prevented with good, effective, oral hygiene care regimen at home. However, there is a gap of knowledge in our society as well as in the dental community when it comes to oral care for SHCNs persons. The overall **purpose** of this report is to determine the feasibility of developing community programs specifically tailored to individuals with SHCNs. **Methods** of data collection used were both quantitative and qualitative. Primary data was collected using a survey questionnaire of nine questions that was distributed via the UBC survey tool and the participants responses were collected anonymously. Secondary data was collected through in-person interview questions with selected individuals in the dental field as well as with those in direct contact with SHCNs individuals. Fourteen out of possible twenty dental professionals and seven out of possible ten individuals with close relations to special needs person completed the survey. No data was collected from an individual with SHCNs themselves. **Results** indicate that both dental professionals and care providers have little knowledge of currently available programs for special needs. Although dental professionals are highly aware of the link between oral health and overall health, 50% of them are only slightly aware of dental tools available to help this group of people. In **conclusion** most participants are unaware of the limited community programs available but show demand for more oral hygiene community programs. Individuals including some dental professionals are unaware of all available tools to help with home care for SHCNs individuals. This further shows the gap in knowledge not only in this community but as well in the dental community.

## **Introduction**

A healthy smile can transform our appearance and provide a positive outlook on life. Good oral hygiene is proven to be not only good for our oral health but also overall health. By having good oral home care, maintaining a healthy diet, and visiting the dentist, we can prevent diseases such as dental decay or gum diseases – both of which can cause tooth loss. Research has found that the number of teeth we have is a strongly linked to how long we will live. Those with 20 teeth or more at the age of 70 had a considerably higher chance of living longer than those with less than 20 teeth (Oral Health Foundation, (OHF) 2019). Individuals with SHCNs suffer higher rate of tooth decay compared to the general population; tooth decay often leads to much more complicated dental concerns such as having a root canal treatment, or even tooth loss. Much of this can be prevented with good, effective, oral hygiene care regimen at home. The statement of problem for this research is the lack of community oral hygiene educational programs available for special needs individuals. People with special educational needs are those who have long-term physical, psychological, intellectual, or behavioral difficulties that may affect their equal, full, and effective participation in social activities (Díez-Palomar et al., 2021). One research shows that approximately 80% of children with special health care needs (CSHCN) and 72% of children without special needs (CWOSN) received preventive dental care. CSHCN parents reported more dental problems and fewer described their children as having good to excellent dental health compared to CWOSN, despite greater odds of having dental coverage and receiving preventive dental care (Mary et al., 2008).

The purpose of this report is to assess the feasibility of developing community oral hygiene programs specifically tailored to individuals with SHCNs. Research shows that the current availability of community educational programs for the chosen demographic is limited. However,

there are many preventive dental programs (scaling, sealants, fluoride application etc.) available for people of all ages and only a few specifically designed for special needs individuals. See Figure 4 under Appendix for links for available preventive dental programs. The proposed solution is to create effective oral hygiene community programs specifically tailored to the needs of our chosen demographic to educate the population on good oral hygiene care in hopes to decrease the rate of oral health care issues.

The report includes research completed through surveys and interviews of both dental professionals as well as individuals with SHCNs and their care givers. Primary data was collected using a survey questionnaire of nine questions that was distributed via the UBC survey tool and the participants responses were collected anonymously. A total of twenty-two participants completed the survey of which fourteen were in the dental profession and eight that had close relations with SHCNs individuals. Working as a dental hygienist, Secondary data was collected through in-person interview questions in the dental clinic with dental professionals and caretakers. They provided a broader understanding of the challenges, demand, and perspective for this research. It also gave light to the issue and the gap in our knowledge as a society. To assess the feasibility of developing community programs specifically tailored to individuals with SHCNs, the following topics were researched:

- Current availability of community programs available for those with SHCNs.
- Demand for oral hygiene programs for this group of people.
- Current level of knowledge regarding oral hygiene care for individuals with SHCNs and their care givers.
- Impact will these community oral hygiene programs have on the selected population's oral and overall health.

## **Report**

### **Method**

Twenty dental professionals working in a local dental clinic were asked to fill out an anonymous survey. Fourteen individuals were able to complete the survey within the given timeline. Ten individuals who have close relations with someone with special care needs were also asked to complete the survey and were asked to allow the individual with special needs to take the survey as well. Seven individuals with close relations with special needs persons responded to the survey questions within the given timeline. No individual with SHCN completed the survey. The UBC survey tool was used to send each voluntary participant an anonymous link to complete the survey. In addition to that, two dental professionals and two individuals with close relation to special needs people were interviewed. See Figure 5 and 6 in the appendix for sample of survey and interview questions. Participants with relations to the chosen demographic were chosen in person through a dental clinic as well as through family and friends. Some participants had two different individuals complete the survey within the same household. Dental professionals' participants were gathered from a list of old and current colleagues working in the dental field. Demographic of voluntary participants for primary data had individuals from ages between 22 and 65 years old, majority of the participants were female, and had either worked with SHCNs individuals or lived/had close relations with them. See chart below.

Category	Gender	Count
Dental Professionals	14 Female	14
Individual with SHCNs	0	0
Care provider of individual with SHCNs	4 Female 3 Male	7

Figure 1 – Demographic of Voluntary Participants

**Results**

Primary data was collected to assess the feasibility of developing community programs specifically tailored to individuals with SHCNs. Survey indicates that out of 14 dental professionals, 64% were unaware of any community dental programs available for individuals with SHCNs and 36% were aware of 1-2 programs. Out of the 7 care providers 72% were unaware of any dental programs, 14% were aware of 3-4 programs and 14% were aware of 1-2 programs available. Findings for impact of oral health on overall health is demonstrated below in Figure 2.

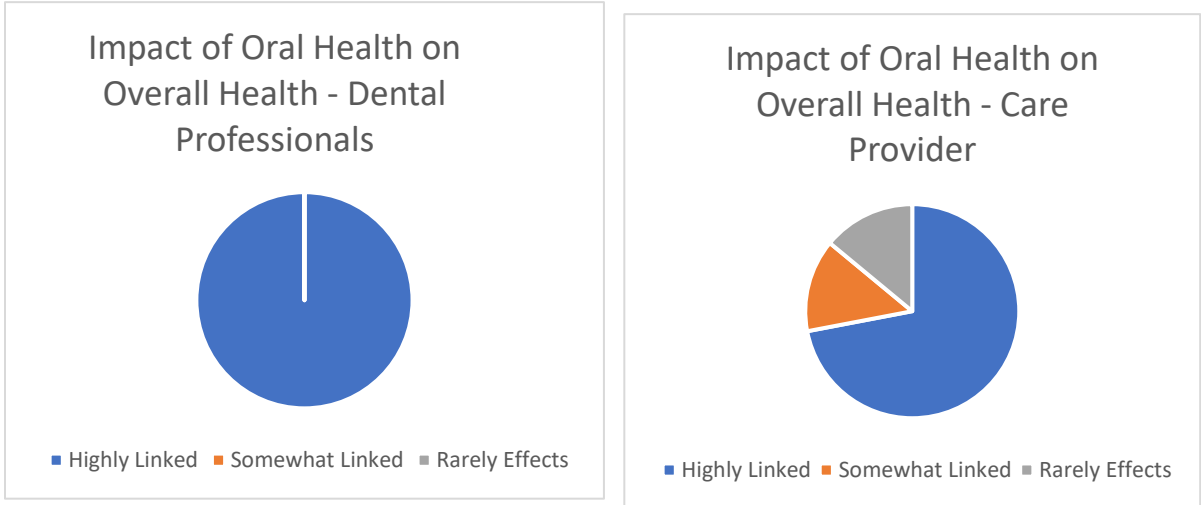


Figure 2 – Results of Q3 of survey



Anxiety levels varied in all participants. 64% of dental professionals indicated that they had no anxiety when visiting the dentist, 29% stated that they experienced anxiety between 1-4 on a scale of 1-10 and 7% indicated that their anxiety level was 5-7. Care providers were at 43%, 14% and 43% respectively. Cost of dental services differed for dental professionals, however 100% of special needs care providers stated that high cost effected thier dental care. Importance of having additional community programs for SHCNs individuals was marked as very important for 64% of the dental professionals and 72% for the care providers. 50% of dental professionals were slightly aware of available dental tools for SHCNs people, 36% were moderately aware and 14% were highly aware. Whereas 71% of the care providers were unaware of any dental tools available and 29% were slightly aware. When asked for satisfaction of the available educational programs for the chosen demographic, 36% of dental professionals and 29% of care providers were not satisfied, whereas 64% of dental professionals and 57% of care providers were not aware of any programs. Overall response of all participants of the survey for demand of community dental programs for people SHCNs is demonstrated below in a bar graph.

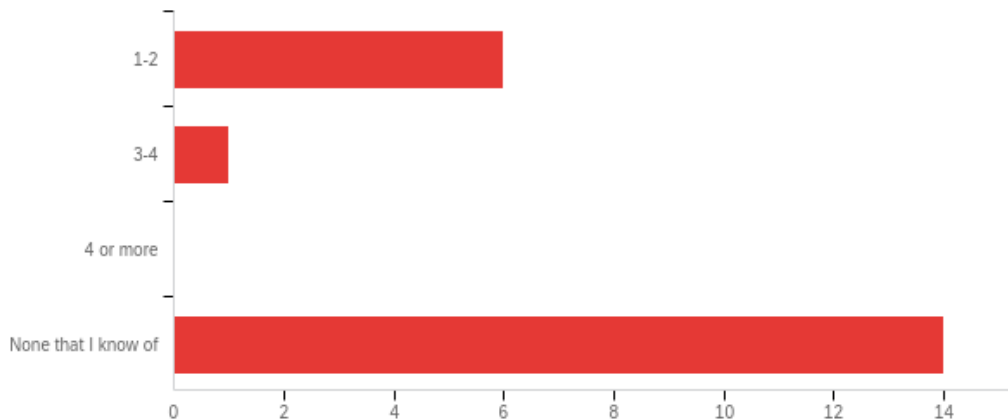


Figure 3: Data for awareness of current programs for all participants

Secondary data was collected with one-on-one interview questions. They revealed that dental professionals have always emphasized the importance of oral health education in the clinical setting but do not often think of educational programs outside of the dental clinic. One dentist disclosed that she was surprised to know how little she knew about this demographic and their difficulties with oral health care. She was also shocked to realize how unaware she was of different tools available to help with oral health care as it is usually the responsibility of the dental hygienist. Both dentists agreed that they would be willing to aid either volunteering their own time, offering the clinic to hold workshops, or aiding financially if a new community educational oral hygiene program was developed.

Care providers of SHCNs individuals shared that they are highly aware of the importance of preventive dentistry as it can help with overall health, daily routine and can be cost effective in the long run. However, given all the additional challenges of these individuals, dental care at times gets forgotten or given less of a priority. By learning a little more about oral health care and by taking part in this research, both candidates believe a fun, interactive oral hygiene community program with a focus on educating the SHCNs individuals will be very beneficial for both the care providers as well as the special needs individuals themselves.

## **Discussion**

To assess the feasibility of increasing community oral hygiene programs, primary research data aimed to focus on four main areas of inquires mentioned above. Data would indicate that high percentage of dental professionals as well as care providers are unaware of any currently available community dental hygiene programs for individuals with special needs. Being in the dental field and surveying other colleagues it came as a surprise that such a high percentage of health providers were unaware of the available options. This is an indicator of gap in our knowledge as a society

and provides a visual representation of level of priority we give to the chosen demographic. As for the care providers, it was expected to see that relation between oral health and overall health would not be a commonly known factor. Dental experience will prove that majority of our society does not believe that there is a direct link from oral health to overall health and how many serious medical concerns can develop if oral care is neglected. High cost and high levels of anxiety among the special needs individuals and their family again comes as no surprise given the unfamiliar territory of a dental clinic or hospital setting and the high cost associated with treatment.

Additional barriers to dental care for individuals with SHCNs include higher risk of oral health diseases due to challenges with dexterity issues, level of dependency as well as diet concerns such as high sugar intake. Certain medications can increase the susceptibility of developing cavities and can affect the health, structure and firmness of gum tissue which is necessary to maintain optimal oral health (Singh, 2019).

**Appendix**

Alberta Dental Foundation	<a href="https://www.albertadentalfoundation.ca/get-dental-help/#alberta-health-services-community-oral-health-programs">https://www.albertadentalfoundation.ca/get-dental-help/#alberta-health-services-community-oral-health-programs</a>
Alberta Health Services	<a href="https://www.cdsab.ca/wp-content/uploads/2019/03/AHS-Gov-Funded-Programs.pdf">https://www.cdsab.ca/wp-content/uploads/2019/03/AHS-Gov-Funded-Programs.pdf</a>

Figure 4 – Links to current available list of Community

## Survey

I am an undergraduate student at UBC engaged in a technical writing project. The purpose of this survey is to obtain primary data for an analysis and investigation that aims to provide recommendations for increasing community oral hygiene programs tailored to individuals with special needs. The final formal report will be addressed to Janice Harrington, Alberta's Health Advocate and Mental Health Patient Advocate and to Dr. Tobias Meiszingger, President of Alberta Dental Foundation (ADF). Together with online research, interviews, and the survey, I will be able to provide a better understanding of need to increase community dental programs for those with Special Health Care Needs (SHCNs). The survey contains 9 multiple-choice questions, and it should take about than 5 minutes of your time. Your responses are voluntary and anonymous. Thank you, I appreciate your generous participation in my survey.

Choose one of the following:

- I am a dental professional
- I am an individual with Special Health Care Needs (SHCNs)
- I am a care provider of an individual with Special Health Care Needs

How many dental community programs are available for people with SHCNs that you are aware of?

- 1-2
- 3-4
- 4 or more
- None that I know of

How aware are you of different dental tools available to help with oral hygiene care at home for individuals with SHCNs?

- Did not know there were additional tools available
- Slightly aware of dental tools available
- Moderately aware of dental tools available
- Highly aware of dental tools available

To your knowledge, what impact does oral health have on your overall health?

- Oral health is highly linked to overall health
- Oral health is somewhat linked to overall health
- Oral health rarely effects overall health

How satisfied are you with the current list of community dental programs for SHCNs individuals?

- Very Satisfied
- Satisfied
- Not Satisfied
- I am not aware of any dental programs

Describe your anxiety level when visiting the dentist on a scale of 1-10

- 1-4
- 5-7
- 8-10
- none

How much demand do you believe there is for more community dental programs for individuals with SHCNs?

- None at all
- A little
- A moderate amount
- A great deal

How does cost effect your dental care?

- Minimal
- Moderate
- High

How important is it for you to have additional community dental programs for oral hygiene tailored to individuals with SHCNs?

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

Figure 5 – sample of survey used for research

**Interview Questions:****Dental Professionals:**

1. Prior to completing the survey, how important did you believe oral health educational programs were for SHCNs individuals?
2. If there was a new community educational program available for SHCNs individuals, would you be willing to be involved in it? Either Financially or by volunteering?

**Individuals with close relations to SHCN:**

1. Prior to taking the survey, how often did you think about the importance of preventive dentistry?
2. After taking this survey, what are your thoughts on development of oral hygiene educational programs for individuals with SHCNs?

Figure 6 – sample interview questions used for research

**Conclusion**

Both primary and secondary data collected show significant lack of knowledge and gap in our society between both dental professionals and care providers. Research findings explain that there is a greater need for more community programs focusing particularly on individuals with special needs. It is understandable that the chosen demographic is a minority, however, prioritizing the health needs of all groups is necessary. Health providers should be well informed to assess their patients in bettering their oral health.

The author recognizes there are limitations to this study. No data was collected from SHCNs individuals themselves – reason for this that they were either too young to comprehend the information or the level of cognitive understanding was limited to provide reliable answers. Another limitation to this study was only selected number of individuals for data collection of secondary data. In future studies, author may need to expand the number of volunteer participants

to include individuals with SHCNs as well as to have a larger number of people available to collect secondary data.

### **Recommendations**

Proposed solution to this issue would be to develop an annual oral hygiene workshop catering specifically to individuals with special health care needs. The program would provide an opportunity for the care providers to interact with other care providers as well as engage with oral health specialists such as dentist, dental hygienist, or dental assistants to have any questions or concerns answered. The workshop would also give a chance to individuals with SHCNs to interact with one another in a safe place. An ideal program would use dental students as volunteers to help expand their knowledge and experience as well as to emphasize the importance of good oral health care for all people regardless of their unique challenges to our upcoming graduates. The workshop would require a pre-screening survey to have the volunteers familiarize themselves with the participants of the program to really personalize the oral health instructions provided. The workshop would be funded by organizations such as the ADF or AHS to optimize marketing strategies to spread awareness of the educational programs. Marketing strategy would also put emphasis on the importance of preventive dentistry over restorative dentistry. Program providers and participants should also appreciate that one way to manage high cost and high anxiety levels is through good oral hygiene home care routine.

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