

## CASE 8

### iSMILE Project – Improving Seniors’ Mouthcare in Long-Term Care Establishments

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*“Oral health is an important part of overall health and a determinant of quality of life.”*

The World Health Organization (2003)

#### BACKGROUND

Dr. Dawn DaSilva, Dental Consultant at Vanes Health Unit (VHU), was faced with the issue of poor oral health status of seniors (adults 65 years and older) in the City of Vanes and area in Ontario, Canada. As a dental consultant, her responsibilities included responding to dental public health issues in the area. She also provided status reports on the oral health of Vanians (residents in Vanes), and evaluation reports on the dental programs and services offered by VHU to the board of health.

The problem of poor oral health status amongst seniors has been a long-existing and an ongoing issue not just in Ontario or Canada but also globally (Petersen & Yamamoto, 2005). Oral health in general has received little attention within the medical community and its importance has been understated at local levels and internationally. However, in 2012, Ontario’s Chief Medical Officer of Health (CMOH), in her report *Oral Health – More than Just Cavities*, expressed her concern about the state of oral health of Ontarians.

*“I am concerned about oral health and its consequences and that not every Ontarian has access to important preventive dental interventions. I am particularly concerned about lower income Ontarians, including children in low-income families, and the profound importance of access to dental care in early life. We know that limited access to dental services can lead to severe health complications and negative social consequences. Ontario has made significant progress in enabling better access to dental care for children, and especially for children in low-income families, but we can do more. I am also concerned about seniors, including those in long-term care homes, and lack of access to adequate dental care.”*

Arlene King, Ontario’s Chief Medical Officer of Health (2012)

The Chief Medical Officer, Dr. King, had just confirmed what had been on Dr. DaSilva’s mind – the time had come for something to be done about the oral health of seniors in the Vanes area. This created the opportunity for Dr. DaSilva to look into what could be done to improve the oral health of seniors in Vanes and area.

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She knew she had to consult with Dr. Charles Oakwood, the Manager of the Oral Health Unit, about the need to create a position in the department for someone to look solely into how to promote the oral health of seniors in long-term care establishments (LTCEs) in the Vanes area.

### **INTRODUCTION**

Similar to other provinces in Canada, Ontario has a universal publicly funded healthcare system which provides health coverage to its residents through Ontario Health Insurance Plan (OHIP). OHIP is single-payer program with the province, Ontario, as the payer. OHIP covers a range of medically necessary health services provided by physicians; it provides limited eye care and dental services (Matthews et al., 2012; Ontario's Ministry of Health and Long-Term Care, 2014). Publicly funded provincial dental programs and services primarily target children and youth. They also target adult clients and their families in receipt of social assistance benefits, neglecting other vulnerable groups such as seniors, especially those in establishments LTCEs.

### **Oral Disease and Oral Health Care**

Dental plaque is one of the main causes of gum disease, caries, and other dental conditions (Marsh, 2004). Dental plaque is a soft biofilm present on the surface of the tooth and around the margin of the gums composed of microorganisms, and organic and inorganic materials (Marsh, 2004). The microorganisms are mainly responsible for periodontitis and caries. Gum disease or periodontitis and dental caries are some of the most prevalent dental conditions amongst seniors (Marsh, 2004). The microorganisms in plaque metabolize sugars present on the tooth surface to produce acid, which destroys the tooth structure causing tooth decay or caries.

Personal oral care or oral hygiene for residents of long-term care establishments may include brushing and/or caring for dentures provided by the individual or assisted by personal support workers. Dental hygienists or dentists usually provide professional care such as scaling and polishing (cleaning), restorative treatments, etc.

Providing good oral hygiene care through tooth-brushing is known to reduce the accumulation of plaque. This physical disruption reduces the risk of developing periodontitis or, where the disease is already present, reduces the severity.

Plaque buildup is also reduced through routine cleaning provided by dental professionals (Marsh, 2004). Plaque can also accumulate on dentures. Proper cleaning of dentures before and after food reduces the risks of periodontitis and helps to maintain the health of remaining teeth (for those with partial dentures). The presence of dental plaque and calculus (calcified plaque) also causes mouth odour. Mouth odour could affect residents' nutrition or appetite and their self-esteem and mental health. Dental pain from periodontitis or caries could also result in reduced appetite or weight loss eventually affecting overall health (King, 2012). Studies have shown that providing good oral care leads to good oral health (King, 2012; MacEntee, MacInnis, McKeown, & Sarrapuchiello, 2008).

### **SENIORS IN VANES AREA**

Seniors 65 years and older are retaining their natural teeth longer than previous generations (Health Canada, 2010). With Canadians living longer and keeping their dentition longer as well, dental diseases have also increased in this subgroup (Canadian Dental Association [CDA], 2008). Seniors in LTCEs are more susceptible to dental diseases and have poorer oral health than community dwelling seniors (CDA, 2008; Matthews et al., 2012). Studies have shown a high prevalence of untreated oral disease amongst this subgroup in LTCEs (Helgeson & Smith, 1996; Frenkel, Harvey, & Newcombe, 2001; Lukes, Janssen, Thacker, & Wadhawan, 2014).

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They are faced with different dental diseases ranging from caries to gingivitis to denture-related problems.

This poor oral health was of major public health concern; dental disease and its consequences had the potential to increase the financial burden on the healthcare system and incur societal costs as well. Including oral health into provincial health plans would obviously improve oral health of seniors and impact their overall health as lack of insurance is an influential factor that predisposes individuals to severe disease (Health Canada, 2010; Kelsall & O'Keefe, 2014).

Dr. DaSilva approached Dr. Charles Oakwood, the Manager of Oral Health at VHU, to discuss the problem with him. They were faced with the challenge public health is constantly faced with – very limited resources. They knew that if oral health services were included among the medical and diagnostic services covered by OHIP, access to dental care and treatment would improve for all Ontarians. However, this decision was outside their jurisdiction and did not seem possible in the near future; hence they needed other solutions. They also knew that although this was a priority population, there was no government funded dental program serving local seniors. They wondered how to proceed with limited resources.

Having considered the challenges before them, Drs. DaSilva and Oakwood decided that they needed to research the reasons for poor oral health of seniors in LTCEs in the Vanes area before they could devise solutions to improve their oral health. They decided that they needed to identify the major causes of poor oral health for seniors in LTCEs in Vanes as a first step.

### **Causes of Poor Oral Health Amongst Seniors in LTCEs**

Studies have identified cost of care as a major cause of poor oral health for seniors in LTCEs – most seniors are retired and therefore no longer have dental benefits associated with employment (Matthews et al., 2012; Kelsall & O'Keefe, 2014). Statistics revealed that 53% of seniors in Canada do not have dental insurance and about 40% are covered by private plans (Health Canada, 2010). The cost of dental services for those without insurance coverage and who cannot afford to pay out of pocket creates a barrier to accessing dental services and eventually leads to poor oral health. Seniors in LTCEs are usually on several medications, for their medical needs, which usually results in xerostomia (dry mouth) and leads to caries and worsens other oral conditions (CDA, 2008).

Another cause is reduced capability and insufficient time for oral care. Many seniors or residents in LTCEs have reduced visual, mental, and physical capacities and are thus reliant on caregivers to provide oral care for them (Jablonski, Munro, Grap, & Elswick, 2005; Dharamsi, Jivani, Dean, & Wyatt, 2009; Matthews et al., 2012).

### **Personal Support Workers and Nurses in LTCEs**

Long-term care homes provide nursing care and residence to people unable to care for themselves with the majority of their residents being seniors (Frenkel et al., 2001). Nursing staff in these homes include registered nurses (RNs), registered practical nurses (RPNs), and nursing assistants, also called personal support workers (PSWs). PSWs mainly provide assistance with activities of daily living like hygiene and personal care – bathing, oral care, toileting, amongst others. RPNs perform similar tasks to PSWs with additional responsibilities that may include administering medications, and attending to wounds. The RNs are regulated professionals and are the most senior in hierarchy amongst the nursing staff and supervise nursing activities provided by the other nursing staff (MacEntee et al., 2008). They provide complex care to residents such as antibiotic treatments and other medications, administration of intravenous therapy and oxygen, as well as supervise RPNs, PSWs, and nurse aides. They also consult with physicians or geriatricians. The Director of the LTCE is usually an RN who

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oversees the affairs of the home and supervises all staff, both nursing and non-nursing (Helgeson & Smith, 1996). Caregivers in LTCEs have many responsibilities and many residents to attend to; as a result they may have insufficient time to allot to oral care (Altani & Wyatt, 2002).

Studies have shown that caregivers spend an average of 16.2 seconds brushing a resident's teeth as compared to the recommended 2 minutes (Stein & Henry, 2009). Other identified causes of poor oral health of seniors include lack of oral health education and awareness for caregivers in LTCEs. Studies also showed that only 16% of residents receive oral care and only 5% who request to have their teeth brushed actually have their request granted (Stein & Henry, 2009). This was attributed to caregivers' lack of awareness of the importance of oral health (Altani & Wyatt, 2002).

### **THE 'iSMILE' PROJECT**

After a series of brainstorming sessions reviewing the results of the literature review, Drs. DaSilva and Oakswood decided on a health promotion initiative targeted at caregivers in LTCEs as they were responsible for oral care for all residents in the home. The literature suggests that the provision of oral health education and promotion to caregivers can lead to improved oral care delivery to the seniors.

For example, a study by MacEntree et al. (2008) found that educating institutional staff improved the oral health of LTC residents. Also, in a randomized controlled trial done in Avon, United Kingdom, residents whose caregivers received oral health education had improved oral hygiene and overall better oral health status as compared to residents whose caregivers did not receive the training (Frenkel et al., 2001). Studies have also shown that one of the most effective ways of educating LTC staff is by providing educational programs in-service to LTC caregivers through presentations, videos or audiovisual aids, demonstrations using models or print materials, and group discussions (Frenkel et al., 2001).

Having decided on their strategy, Drs. DaSilva and Oakswood delegated the project to Michaela Joseph, a Health Promoter recently hired to the Oral Health Team. The Oral Health Unit had recently received a community funded grant, hence their decision to hire a Health Promoter to carry out the project. The project was titled the iSMILE project – improving Seniors' Mouthcare In Long-term care Establishments.

Michaela was excited about the project she had just been assigned. Trained as a Dentist in Nigeria, she was quite passionate about oral health practice, delivery, and promotion. Having worked with several vulnerable populations in Nigeria promoting oral health, she was certain she could deliver on the project she had just been assigned. She was confident she could improve the smiles of seniors in LTCEs.

### **THE iSMILE PROJECT GOAL AND OBJECTIVES**

The goal of the iSMILE project was to improve the oral care delivery to residents in LTCEs in order to improve their oral health. It had the following objectives:

- Identify information and knowledge needs of the caregivers in providing oral care;
- Describe the extent of health needs;
- Prioritize identified needs;
- Evaluate existing services or resources to address these needs and identify best practices;

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- Identify the best Information, Education, and Communication (IEC) materials for the caregivers; and
- Make recommendations

### **NEEDS ASSESSMENT**

Michaela's first task in meeting the objectives of the project was to conduct a needs assessment to determine what information was needed. She would need information regarding the target population, the geographical area, and other stakeholders, etc. Vanes and area has about 28 long-term care homes. Though Michaela was aware she would be unable to visit all LTCEs with the limited 12-week timeline for the project, she was hoping to visit at least a third of the homes (the project was limited to 12 weeks based on the funding available for the project). She wanted to know how oral care was provided in the LTCEs, what barriers or challenges they faced in providing oral care, and what resources and support they had access to, etc. Michaela also wondered about the policies in LTCEs; if they had oral care policies and if these policies were being enforced. Studies had shown oral care policies were not enforced in some LTCEs (Pyle, Jasinevicius, Sawyer, & Madsen, 2005). It was at this point she conducted more research and discovered the Long-Term Care Homes Act (2007) (see Exhibit 1) which mandates oral care to be provided to residents in LTCEs. It specifies what oral care procedures are to be carried out and who is responsible for the care. She decided that she would need to include management staff as a secondary audience with the caregivers being the primary audience. However, she would have to make contacts within the LTCEs first, in order to find out what the needs were.

Having decided what information she needed, the next thing was to identify where to get the information she needed and how to gain access into the LTCEs. For this she did a literature search and set up consultation meetings with experts who had worked with LTCEs to provide insight on how they were operated, what policies were in place, who provided oral care for the residents, etc. Experts consulted were VHU staff that had worked at LTCEs previously, other health units in the province, and dental professionals in Vanes. Expert opinion revealed that the frontline providers responsible for providing personal (including oral) care for residents were personal support workers (PSWs). Nurses had other responsibilities relating to medications, dietary supervision, and more complicated medical needs. The data from experts was collected through face-to-face interviews and telephone surveys. They provided insight into operations and staffing of LTCEs, challenges faced by residents, as well as an overview of the oral health status of residents in the home. These subject matter experts also initiated the process of contacting the LTCEs to establish rapport and allow Michaela access into the home in order to speak with caregivers and management staff.

Having also consulted with experts from other health units who offer dental programs for seniors, Michaela decided to do further research to find out what work other municipalities, provinces, and places outside of Canada were engaged in around the oral health of their seniors. Her literature review revealed several successful oral health promotion strategies and other resource tool kits that could be used to assist care providers in providing better oral care delivery to clients. Michaela was glad that despite the lack of a provincial-level effort to address the needs of this vulnerable population, some Ontario municipalities and other provinces had developed programs and resources. This information was particularly important to Michaela who was passionate about health promotion, particularly oral health promotion.

Next on Michaela's agenda was to conduct a needs assessment amongst the care providers and management staff. The methods used were focus group discussions and face-to-face interviews. These served as a means of collecting data and educating staff. A study by Frenkel

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et al. (2001) showed that group discussions were an effective way of educating LTCE staff. The discussions and interviews were scheduled for a maximum of 40 minutes due to the busy schedule at LTCEs. Questions for focus group discussions and interviews were prepared prior to visiting the homes (see Exhibits 2 and 3).

### **RESULTS AND ANALYSIS OF NEEDS ASSESSMENT**

The focus group discussion participants were mainly PSWs and some nurses. Most of the PSW participants had a fair understanding of oral health and its importance to general health, while the nurse participants seemed to have more knowledge. They reported that among their clients; the main dental conditions were bleeding gums, decayed teeth, bad breath, and dry mouth. The needs assessment showed that the main barriers to good oral health for residents were:

- Time
- Resident attitude
- Lack of financial resources
- Lack of access to dental services
- Lack of an oral care champion
- Lack of oral health awareness by family members of residents

#### **Time**

This was the biggest barrier. Some homes have only one PSW for 8-12 residents, so spending 2 minutes twice a day with a senior was very challenging. The nurses and PSWs had to wake all residents by 6 am and have them showered, dressed, and seated for breakfast by 8:15 a.m. Given all they had to do within such a short time, oral care was given less priority. Understaffing was a constant theme occurring in all the homes surveyed and was the main reason for insufficient time. With fewer hands available to attend to the needs of the residents, caregivers could not give every aspect of care the attention it deserved, leaving oral care to suffer.

The process of the needs assessment revealed a lack of adequate oral care training amongst the PSWs. Though the caregivers did not categorically state they did not have sufficient oral health education and training, Michaela knew there was still an opportunity to try additional training (Altani & Wyatt, 2002). Though several caregivers were unaware of techniques used to provide oral care to residents with resistive behaviours, they did state that insufficient time was a major barrier to adequate oral care. One of the PSWs stated, “insufficient time is the main reason for giving up on seniors who are resistive to oral care – there is just not enough time to battle with them simply to clean their teeth.”

#### **Resident Attitude**

Incompliant or aggressive seniors who kick, bite, or spit on care providers posed special challenges. PSWs noted that providing oral care was easier for residents who were interested in their oral health as opposed to those who were not. However, the lack of interest could sometimes be attributed to deteriorating general health or cognitive capacity.

#### **Lack of Financial Resources**

Residents who had a dental plan or who could afford dental care were more likely to have better oral health than a resident who could not afford dental treatments.

#### **Access to Dental Services**

Some LTCEs have dental companies visit the LTCE to provide dental services on-site. For LTCEs without dental offices or dental services, residents would have to visit private dental

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offices in the community. Use of these services would depend on those who could afford to pay for such services or who had insurance, and the transportation costs associated with travel.

### **Lack of an Oral Care Champion (OCC)**

A champion is an advocate for a program, belief, innovation, or an agenda (USAID, 2010). Several LTCEs have a 'falls' champion, an 'incontinence' champion, a 'mental health' champion, etc. They advocate for these areas by speaking to and motivating the staff. Only one LTCE among the five surveyed had an oral care champion. It was noticed that the oral care delivery and oral health status of residents in this particular LTCE was better than that in the other LTCEs. Though other factors contributed to the good oral health status (such as a geriatrician-dental hygienist team who provided oral health education to caregivers), it seemed highly likely that a PSW who was also the champion had its impact in improving oral health of LTC residents. The findings from the needs assessment in this home did suggest that the oral health education and promotion strategy initially planned by Drs. DaSilva and Oakwood could work.

### **Lack of Oral Health Awareness by Family Members of Residents**

This was a recurring theme in most homes visited. Caregivers mentioned that family members were often unaware of the impact oral health could have on the overall health of their relative. Some residents are admitted into LTCEs with already compromised oral health; such residents could be at an increased risk for further deterioration of their oral health and overall health eventually. Though some families may not be aware of the importance of oral health, others feel oral health was not a priority as compared to other medical challenges their relative may be facing. Thus the need to educate family members and relatives of seniors in LTCEs is important.

Michaela then proceeded to the next phase of her qualitative research – doing a needs assessment of the senior management staff (see Exhibit 4). She approached this from a different perspective compared to that for the PSWs. She enquired as to the ways they felt oral care, and ultimately oral health, in the home could improve and what part they could play in making good oral health a reality for the seniors in their care. The interviews revealed that all the homes surveyed had oral care policies and procedures. While some homes enforced all the policies, others only partially enforced them. The interviews also revealed that while some homes provided comprehensive oral care training and education for their staff, other homes had little to no training regarding oral care. The reason some homes gave for this lack of training was that oral health education is not a specifically mandated training requirement by the Ministry of Health and Long-Term Care.

### **HOW TO PROCEED**

Michaela was faced with a major challenge after the focus group discussions with the caregivers. Despite the fact that she had identified the lack of adequate oral health education and motivation amongst the caregivers, they themselves did not identify this as a barrier to providing care nor did they think they needed additional training. They did mention that there were oral care policies in the home that required oral care to be provided to the residents and that they had the basic knowledge to provide adequate oral care, but the barriers listed above (time, resident's attitudes, etc.) were beyond their control. It appeared to be more of a systemic problem to them than what role they could play in improving oral care of seniors. During the discussion, Michaela asked about their access to health resources and materials as well as in-service presentations and how useful they were. She then inquired as to what they felt would be effective in assisting them provide better oral care to residents. They did offer some suggestions as to what could benefit them.

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Michaela started the needs assessment with the aim to develop health promotion strategies to educate and empower caregivers to improve oral care delivery to residents based on her initial research findings which showed caregivers played a major role in oral care of residents (Altani & Wyatt, 2002). However, her findings from the analysis of her qualitative research showed it was not as simple as she had initially thought. What could she do? What recommendations can she make? What solutions can she come up with in order to improve the oral health of this vulnerable population? How else could she work with the caregivers to provide better oral care to residents? Where does she proceed from here? What recommendations or interventions could she make keeping in mind that funding is minimal?

She thought about possible options:

1. Does she develop educational materials for families of residents emphasizing the importance of oral health as a part of general health and the part they could play in improving the oral health of seniors?
2. Does she develop oral health training resources and educational materials to be included as part of the orientation and annual trainings for staff? Would this serve to improve oral care delivery if the caregivers do not see this as their main barrier or even a barrier at all?
3. Does she approach dental hygienists and dentists to offer pro-bono services to residents in the home once a month or thereabout? What incentives can she come up with to motivate these dental professionals to visit the homes?
4. Should she conduct more research; this time a needs assessment of the residents and present the findings to the ministry with the hope of acquiring public funding for programs for this group of people?

Where should Michaela go from here and what should she do?

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### EXHIBIT 1 Oral Care Policies for LTCEs

#### Section 34 – Oral Care

Every resident must receive oral care that includes:

- Morning and evening mouth care, including the cleaning of dentures;
- Physical assistance or cuing as needed to brush his or her own teeth;
- Assistance, if required, to insert dentures prior to meals and at any other time as requested by the resident or required by the resident's plan of care; and
- An offer of an annual dental assessment or other preventive dental services, subject to payment being authorized by the resident or the resident's substitute decision-maker, if payment is required.

Source: Ontario's Ministry of Health and Long-Term Care, 2007.

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### EXHIBIT 2

#### Needs Assessment Questionnaire (1) - Focus Group Discussions for caregivers

##### Questions for focus group discussions for PSWs (30-40 minutes)

1. When you think about oral health, what comes to mind? (Open-ended question to get into concerns about dental issues in the home.)
2. Do you think oral health has an impact on general health? If no or yes, how?
3. Among your daily routines for caring for the elderly, what constitutes oral care? (E.g. oral hygiene, denture cleaning/insertion, assessments, etc.)
4. How do you go about providing oral care? (E.g. how many times a day is brushing done per resident and for how long, are dentures labelled, how are they cleaned and stored, etc.)
5. Do you think oral health of residents in the home is a problem? If no or yes, why do you think so?
6. How do you find providing oral care to the residents? Good? Okay? Not bad? Challenging? Why do you think this is the case? (I expect them to talk about challenges here.)
7. What do you think can be done to improve the oral health of seniors? What part do you think you can play in it?
8. What do you think you'll need in order to assist the residents in attaining good oral health? (Likely to talk about resources such as: access to training resources or educational materials and/or which forms of media are preferred – video, prints, posters, pamphlets, etc.)

Source: Created by author.

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**EXHIBIT 3  
Needs Assessment Questionnaire (2) - Interviews for caregivers**

**Questionnaire for Seniors’ Oral Health in Long-Term Care Establishments to Survey Nurses, Personal Support Workers**

Seniors, particularly those in Long-Term Care (LTC) homes, have been identified to be vulnerable to dental diseases. The aim of this project is to identify barriers or challenges faced by healthcare providers and administrative staff to providing good oral health of seniors in LTC homes and to identify possible solutions with the assistance of these care providers. Please answer the following questions below, thank you!

1. **What is the name of your home?**

\_\_\_\_\_

2. **What position do you occupy?**

- Nurse
- PSW
- Residential care aide
- Other

3. **What dental diseases are most common in the home?** *Please indicate all that apply:*

- Cavities
- Broken teeth
- Loose teeth
- Tooth sensitivity
- Bleeding gums or gum disease
- Unhealthy oral tissues (ulcer, swollen or patches)
- Unhealthy tongue (ulcer, bleeding, swollen or patches)
- Mouth odour
- Dry mouth
- Unhealthy lips (ulcer, bleeding, swollen or patches)
- Other: \_\_\_\_\_

4. **What oral care procedures do you do for the residents?** *Please indicate all that apply:*

- Daily brushing       Twice daily brushing       More than twice daily brushing
- Flossing
- Denture labelling
- Denture cleaning
- Denture insertion and removal
- Oral health assessments      How often? \_\_\_\_\_
- Other: \_\_\_\_\_

5. **I find it challenging to provide oral care to residents because ...** *Please indicate all that apply:*

- I don't have enough time to attend to the needs of all the residents, let alone dental needs
- I don't have enough time to attend specifically to dental so only deal with medical needs
- I forget sometimes
- Positioning the patient for oral hygiene care is difficult to do
- It's difficult to see inside the mouth while performing oral care
- Some residents won't open their mouth
- Some residents refuse oral hygiene care
- Some residents are aggressive (may kick or bite)
- Some residents can't rinse or spit
- Some residents have complex needs and providing oral care would be too challenging
- There is little support from admin/management

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I don't know much about how to provide oral care to seniors

Other: *please specify* \_\_\_\_\_

**6. Do you currently have access to training resources / education materials for providing oral healthcare to seniors?**

No

Yes How often? \_\_\_\_\_

What type of education/training tools have you had access to? *Please indicate all that apply:*

Presentations by dentists/hygienists or other dental health professionals

Educational prints: brochures/pamphlets/fact sheets, etc.

Online modules/resources

Videos

Workshops

Other: *Please specify* \_\_\_\_\_

How effective/useful have these resources been in enabling you to provide oral care?

**(N-E = Not Effective, S-E = Somewhat Effective, E = Effective, V-E = Very Effective)**

	<b>N-E</b>	<b>S-E</b>	<b>E</b>	<b>V-E</b>	<b>Access Not Available</b>
Presentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educational prints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Videos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online modules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7. Please specify any other comments, concerns, or questions in the box below**

Thank you for your time!

Source: Created by author.

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**EXHIBIT 4**

**Needs Assessment Questionnaire (3) - Interviews for Directors of LTCEs**

**Questionnaire for Seniors’ Oral Health in Long-Term Care Establishments Survey**

Seniors, particularly those in Long-Term Care (LTC) homes, have been identified to be vulnerable to dental diseases. The aim of this informal survey is to identify barriers or challenges faced by healthcare providers and administrative staff to providing good oral health of seniors in LTC homes and to identify possible solutions with the assistance of these care providers. Please answer the following questions below, thank you!

1. Do you have a dental facility on-site? [ ] Yes [ ] No

2. Do you have a specific dentist affiliated with your centre? [ ] Yes [ ] No

If yes, who is it? \_\_\_\_\_

3. Do you have a specific dental hygienist affiliated with your centre? [ ] Yes [ ] No

If yes, who is it? \_\_\_\_\_

4. Do you have a specific denturist affiliated with your centre? [ ] Yes [ ] No

If yes, who is it? \_\_\_\_\_

5. Does the home have visits from dental companies? [ ] Yes [ ] No

6. Does the home offer transport to local dental offices? [ ] Yes [ ] No

If yes, at whose expense?

[ ] Home

[ ] Resident

[ ] Other: *Please specify* \_\_\_\_\_

7. Do you have oral healthcare policies in the home? [ ] Yes [ ] No

– Are Oral Health Assessments performed on admission and at other times?

[ ] Yes [ ] No Other: *Please specify* \_\_\_\_\_

– Do residents receive daily oral hygiene?

[ ] Yes [ ] No

[ ] Mornings

[ ] Evenings

[ ] Mornings and evenings

[ ] Other: *Please specify* \_\_\_\_\_

– Is denture cleaning, care, and insertion offered to residents?

[ ] Yes [ ] No

– What other policies are in place and enforced? *Please mention briefly in box below.*

8. Who provides oral healthcare to residents?

[ ] Resident

[ ] PSW or residential care aides

[ ] Nurse

[ ] Resident’s family

[ ] Other: *Please specify* \_\_\_\_\_

*Please mention any other comments/questions/concerns in box below.*

Thank you for your time!

Source: Created by author.

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## INSTRUCTOR GUIDANCE

### iSMILE Project – Improving Seniors’ Mouthcare In Long-term care Establishments

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#### BACKGROUND

The Ontario universal healthcare coverage through the Ontario Health Insurance Plan (OHIP) was established to provide for the health needs of Ontarians ranging from children to the elderly. However, it does not include oral healthcare. Publicly funded programs that provide dental services are offered to children from low income families, recipients of Ontario works, and Ontario Disability Support with no program for seniors. With most seniors already retired and no longer receiving employment derived dental benefits, those in need of dental services would have to purchase private insurance or pay out-of-pocket. The cost of dental treatment for those who cannot afford it serves as a barrier to accessing dental services and leads to poor oral health. Seniors, especially those at a long-term care establishment (LTCE), are more susceptible to dental diseases. With many seniors retaining their natural teeth compared to previous generations, dental diseases tend to thrive and there is the increased need for dental services.

The Vanes Health Unit (VHU) Oral Health Department, under the leadership of Dr. Dawn DaSilva and Dr. Charles Oakwood, identified this vulnerable subgroup and in 2014 decided to take on the challenge to promote seniors’ oral health while working with limited resources. Out of this situation the iSMILE project (improving Seniors’ Mouthcare In Long-term care Establishments) was born. It is a health promotion initiative aimed at improving seniors’ mouthcare by targeting caregivers – personal support workers (PSWs) mainly (in some homes nurses as well). This was done through a needs assessment first to determine what oral health meant to caregivers and their knowledge of its impact on general health, how oral care is carried out in the home, challenges and barriers faced. The project also targeted management staff as a secondary audience.

In May 2014, Michaela Josephs, a new member of the VHU-Oral Health Team, was tasked with the responsibility to carry out the iSMILE project and to eventually develop oral health education and promotional resources that could be used by the caregivers in LTCEs. The iSMILE project was a community funded grant. Michaela had a 12-week timeline to carry out the project based on the amount of funding provided. She reviewed the findings from Dr. DaSilva and Dr. Oakwood’s literature review on causes of poor oral health status of seniors in LTCEs. Michaela also conducted several literature searches and consulted with several experts to gather information about the priority population, the different target audiences, and to gain access into the LTCEs. Having done this she then proceeded to the LTCEs where she conducted a series of focus group discussions and interviews with PSWs and management staff.

## iSMILE Project – Improving Seniors' Mouthcare in Long-Term Care Establishments

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### OBJECTIVES

1. Identify underserved/vulnerable populations.
2. Appreciate the difference between priority populations and target audience for public health interventions (e.g. a nutrition education program to reduce obesity in children; target audience for the intervention/program is parents but priority population is the children).
3. Recognize political, economic, social, and other determinants of health in vulnerable populations.
4. Learn how to conduct a needs assessment:
  - a) Identify how to access information already available through literature reviews, expert consultations, and other sources.
  - b) Effectively identify and engage all stakeholders – primary and secondary audience, experts and others.
  - c) Identify and prioritize needs.
  - d) Develop a range of solutions; analyse and appraise each option.
  - e) Determine what is feasible given the local context, environmental factors, and resources available.

### DISCUSSION QUESTIONS

1. What is the public health challenge Drs. DaSilva and Oakswood are faced with and what is the local context?
2. Who are the priority population and the target audiences?
3. What are the identified causes of poor oral health of seniors?
4. What steps did Michaela take in conducting the needs assessment?
5. What are the barriers to good oral health for seniors identified by the PSWs?
6. What dilemma is Michaela faced with?
7. Discuss the different options and come up with alternative options (while also considering the local context and influencing factors).
8. How should Michaela implement the options?

### KEYWORDS

Oral care; needs assessment; personal support workers; seniors; residents; long-term care establishments.