

**A study of oral care provision to functionally dependent long-term care
residents**

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Montreal, Quebec

July 2015



A thesis submitted to McGill University in partial fulfilment of the requirements of the
Degree of Master of Science

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DEDICATION

This thesis is dedicated to my parents, without whose hard work I would have never had the opportunities in life that I had. This thesis is also dedicated to my wife and children, whose constant encouragement and persistence enabled me to reach my goals.

“Knowledge without wisdom is like water in the sand”. ~ Guinean proverb

ABSTRACT

Background: Over the past three decades oral health has improved in Canada yet, oral health disparities still exist. This is especially true for elderly populations living in long-term care (LTC) facilities. Functionally-dependent residents of LTC facilities are vulnerable, at risk of poor physical, psychological and social health. As a result, this population is also at high risk for oral diseases and associated systemic problems. Research shows that dependent seniors living in LTC facilities have poor and deteriorating oral health and their access to oral health care is limited. The lack of proper oral care provided in these facilities is one of the primary reasons for widespread oral disease amongst residents. With the demographic trend in Canada towards an increasingly large elderly populations, new guidelines and practices to focus on their oral health is urgent.

Purpose and Objectives: The purpose of this study was to describe the oral care provided during the morning care activities by allied nursing staff (ANS) in two LTC facilities in Quebec. Our objectives were to describe the occurrence and duration of oral care, the time spent on other key aspects of morning care (e.g., grooming, bathing, toileting), the type of morning oral care practices provided to LTC residents (e.g., type and amount of oral care supplies used for natural teeth/dentures, the amount of time required to prepare the resident and materials used), and the location where oral care was provided.

Methods: This study followed a descriptive research design using a validated observational tool. This tool was used to collect real-time observations of morning care practices delivered by the staff. Observations were recorded for specific oral care-related practices (e.g., tooth brushing, denture cleaning), factors that influenced the provision of oral care (e.g., resident

resistance), naturally occurring interventions used to accomplish this care (e.g., behavioral / communication strategies) and resistance to oral care.

Results: Oral care was provided for 28/54 (51.8%) of the residents and for the remaining 26/54 (48.1%) residents, no oral care was given. The average time spent on oral care was 24.9 ± 30.6 seconds. Flossing was not offered to any resident. None of the 11 edentulous residents had their oral cavity brushed. In five of the 28 cases, ANS washed their hands prior to giving oral care. In 19 of 28 cases new gloves were worn before giving oral care. For the other 9, hand washing was not done nor were new gloves donned. ANS removed the dirty gloves after cleaning other parts of body and put on clean gloves however without washing their hands in most cases. Mostly the oral care was performed either immediately after the ANS had washed the resident's body (e.g., face, perineum area) and changed incontinence products (diapers) or dressed the resident. . In six cases, oral care supplies were placed next to the contaminated body wash supplies (i.e., used towels and water bowls) and were not then decontaminated prior to using on the resident. Environmental factors (e.g., noisy room, other people present or interfering during care provision, interruptions due to any reason such as pain, incontinence, and residents' resistive behavior) were responsible for influencing and interrupting the oral care in nine cases. 2 out of these nine residents did not receive care and for remaining seven oral care was first interrupted and then rushed.

Conclusion: This study identified that standards for oral care in LTC facilities in Quebec are not consistent with recommended practices for dependent seniors. Gaps exist between oral care policy and the translation of policy into action. The association between good oral health and the provision of good oral care is complex. This trend needs an urgent change; oral care must

become a priority. A knowledge translation effort is needed to prioritize oral care as a key component of general health.

RÉSUMÉ

Contexte: Au cours des trois dernières décennies, la santé bucco-dentaire s'est améliorée au Canada, mais ses disparités existent encore. Ceci est particulièrement vrai pour les populations âgées vivant en centres d'hébergement et de soins de longue durée (CHSLD). Les résidents fonctionnellement dépendant du CHSLD sont vulnérables, ils sont en danger de la santé physique, psychologique et sociale pauvres. En conséquence, cette population est aussi à risque élevé de maladies bucco-dentaires et de problèmes systémiques associés. La recherche montre que les personnes âgées dépendantes vivant dans des établissements de CHSLD ont une santé bucco-dentaire pauvre et détériorée et leur accès aux soins de santé bucco-dentaire est limité. Le manque de soins adéquats disponibles dans ces installations est l'une des principales raisons de la maladie par voie orale répandue parmi les résidents. Avec l'évolution démographique au Canada vers une plus grande population de personnes âgées, de nouvelles pratiques et lignes directrices visant à se concentrer sur leur santé bucco-dentaire sont urgentes.

But et objectifs: Le but de cette étude était de décrire les soins bucco-dentaires fournis pendant les activités de soins du matin par le personnel infirmier allié (PIA) dans deux établissements de CHSLD au Québec. Nos objectifs étaient de décrire l'apparition et la durée des soins bucco-dentaires, le temps passé sur d'autres aspects clés des soins du matin (par exemple, toilettage, bain, toilette), le type de pratiques de soins buccaux du matin offerts aux résidents du CHSLD (par exemple, le type et la quantité des produits de soins oraux utilisés pour les dents / prothèses naturelles, la quantité de temps nécessaire pour préparer le résident et les matériaux utilisés), et le lieu où les soins oraux ont été fournis.

Méthodes: Cette étude a suivi une conception de la recherche descriptive en utilisant un outil d'observation validé. Cet outil a été utilisé pour recueillir des observations en temps réel des

pratiques de soins du matin livrés par le personnel. Les observations ont été enregistrées pour les pratiques orales spécifiques liées aux soins (par exemple, le brossage des dents, le nettoyage de la prothèse), les facteurs qui ont influencé la disposition de soins buccaux (par exemple, la résistance du résident), les interventions utilisées pour accomplir ces soins (par exemple, des stratégies comportementales ou de communication) et la résistance aux soins bucco-dentaires.

Résultats: La prise en charge a été prévue pour 28/54 (51,8%) des résidents et pour le reste (26/54, 48,1%), aucun soin oral n'a été donné. Le temps moyen passé sur les soins bucco-dentaires était de 24,9 $\pm$ 30,6 secondes. La soie dentaire n'a été offerte à aucun résident. Aucun des 11 résidents édentés n'a eu sa cavité buccale brossée. Dans cinq des 28 cas, le PIA a lavé ses mains. Dans 19 des 28 cas, de nouveaux gants ont été portés avant de donner des soins bucco-dentaires. Pour les 9 autres, ni le lavage des mains ni le port de nouveaux gants n'a été fait. Le PIA a enlevé les gants sales après le nettoyage d'autres parties du corps et a mis des gants propres, mais sans se laver les mains dans la plupart des cas. Le plus souvent, le soin buccal a été réalisé soit immédiatement après que le PIA a lavé le corps du résident (par exemple, le visage, zone du périnée) et a changé les produits d'incontinence (couches) ou habillé le résident. Dans six cas, les fournitures de soins bucco-dentaires ont été placées à côté de fournitures contaminées de lavage du corps (c.-à-d. serviettes utilisées et bols d'eau) et n'ont pas été ensuite décontaminés avant d'être utilisés pour le résident. Les facteurs environnementaux (par exemple, salle bruyante, d'autres personnes présentes ou interférant pendant la prestation de soins, interruptions dues à une raison quelconque, tels que la douleur, l'incontinence, et le comportement résistif des résidents) étaient responsables de l'influence sur les soins bucco-dentaire et de leur interruption dans neuf cas. Deux de ces neuf résidents n'ont pas reçu de soins et pour les sept autres, les soins bucco-dentaires ont été interrompus au départ et ensuite précipités.

Conclusion: Cette étude a identifié que les normes pour les soins bucco-dentaires dans les établissements de CHSLD au Québec ne sont pas compatibles avec les pratiques recommandées pour les personnes âgées dépendantes. Il existe des écarts entre la politique de soins bucco-dentaires et le transfert de la politique en action. L'association entre une bonne santé bucco-dentaire et la fourniture de soin orale est complexe. Cette tendance a besoin d'un changement urgent; les soins bucco-dentaires doivent devenir une priorité. Un effort de transmission de la connaissance est nécessaire pour hiérarchiser les soins bucco-dentaires comme étant un élément clé de la santé générale.

ACKNOWLEDGEMENTS:

First and foremost I would like to thank and appreciate my supervisors Dr. Mary Ellen Macdonald and Dr. Michael Wiseman for their guidance and support. Their perseverance towards this project and constant encouragement enabled me to pursue research in this field and their expertise was invaluable that led me to my Masters at McGill which is a great honor for me.

Dr. Mary Ellen Macdonald, I am grateful for your thoughtful insights, your selfless guidance and prompt feedback, and for the unparalleled support that you have provided. Dr. Wiseman, I cannot thank you enough for pushing me to pursue my dreams, no matter how big they are and no matter how unrealistic they seemed to me. You both have made a very big impression on my life, and I am grateful to have mentors like you both.

I would like to thank “Le Réseau de recherche en santé buccodentaire et osseuse” (RSBO) and “Fonds de recherche en santé du Québec” (FRSQ) for their financial support of this research project.

I would like to thank the wonderful Oral Health and Society Research Unit at McGill. Being a part of this division is an unparalleled experience and I would like to thank my group members and peers, who supported me along the way. To the members of my committee, Dr. Belinda Nicolau and Dr. Christophe Bedos, thank you for continuing your support and wisdom. I would like to thank Maria Pulambo for always guiding me back on track and for being patient with the hundreds of questions always directed her way.

I would like to thank Carolina Pineda from Oral Health and Society Research Unit at McGill University for helping me with data observation for performing the inter rater reliability and the staff at both the hospitals for their help in organizing and assisting in data collection.

Special thanks to my friends, colleagues; Zeeshan Sheikh, Fahd Ahmed, Ahad Shahid Ahmed, Khurram Khan, Nida Amir, who have always guided and supported me in stressful times.

I would like to thank my late father Mr. Mian Manzoor and my mother Mrs. Farida Shah who have supported me throughout my life, in every way possible, and I am eternally grateful to them for encouraging my pursuits and endeavors.

My loving siblings and foremost Jasmeen Manzoor who have always been there for me.

Lastly, I give my profound gratitude and love to my wife and best friend Nida Amir, for her consistent support, love and the reason behind this Masters. My kids Aryan Amir Shah and Azlaan Amir Shah who have always been a source of inspiration to me.

PREFACE & CONTRIBUTION OF AUTHORS

The MSc student wrote all sections of the thesis with Dr. Mary Ellen Macdonald and Dr. Michael Wiseman as the supervisory authors. The field work and data collection of the study were done by the student Amir M Shah during the months of April 2014 to December 2014. The literature review, data entry and analysis was performed by the student. The source references have been provided in the “references” section, for the information that has been used based on the work of others. Dr. Mary Ellen Macdonald was the primary supervisor and Dr. Michael Wiseman was the co-supervisor. They were involved in all stages of the project, from the writing and submission of the research protocol to the analysis and thesis writing.

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LIST OF ABBREVIATIONS

LTC	Long term care
ANS	Allied nursing staff
RN	Registered nurse
LPN	License practitioner nurse
SMAF	Functional Autonomy Measurement System
CAN	Certified nursing assistant
NA	Nursing assistant
RAMQ	Régie de l'assurance maladie du Québec
CHMS	Canadian Health Measures Survey
PAB	Préposé aux bénéficiaires
CDA	Canadian Dental Association
WHO	World Health Organization
HC	Health Canada
RNAO	Registered Nurses' Association of Ontario
BCDA	British Columbia Dental Association
SPSS	Statistical Package for the Social Sciences
CDC	Center for Disease Control

CHAPTER 1: INTRODUCTION

This thesis looks at oral care provided to the dependent residents of two long-term care (LTC) facilities in Quebec. The majority of the seniors admitted to these facilities have some degree of loss of function and are dependent on nursing staff to assist them with the activities of daily living. These activities include daily oral care along with other total body care. Oral health is an important aspect of general health and quality of life. Provision of adequate oral care is therefore important for the seniors residing in these facilities. Studies indicate that LTC residents tend to suffer from poor oral health due to multiple factors. These factors include the residents' health status, their inability to maintain their own daily care, lack of importance placed on oral hygiene by care providers (Haumschild & Haumschild, 2009; Chalmers & Pearson, 2005; Bowers, Fibich & Jacobson, 2001).

The research carried out for this thesis corroborates this literature, suggesting poor oral care is currently being provided to LTC residents in Quebec (Matthews et al., 2012). Our literature review highlights multiple barriers to proper oral care provision, including lack of oral care focus in allied nursing staff (ANS) training, shortage of staff, lack of continuing education and workshops, poor access to oral health professionals, lack of funds for dental services, and lack of oral care supplies. Our empirical study then demonstrates substandard oral care practices happening during morning care in two LTC facilities.

Oral Health Care, a Priority

Oral health is an important component of overall health (Petersen et al., 2005). The importance of oral care as part of routine daily maintenance has been emphasized in the scientific literature, and research has shown the connections between oral care and general health (Haumschild & Haumschild, 2009; Fields, 2008). In 2000, the U.S. Surgeon General issued a

report to create public awareness concerning oral health, focusing on the importance of oral hygiene (Lawrence & Leake, 2001). This report advised the public promotion of oral care and urged equity of care, especially for vulnerable populations. In Canada, the position of Chief Dental Officer was established by Health Canada in 2004, in order to bring public awareness to oral health and disease prevention with a focus on improvement in the public's oral care (Cooney, 2009).

Functionally-dependent residents of LTC facilities are vulnerable as they are at risk of poor physical, psychological and social health (Matthews et al., 2012). Research has indicated that dependent seniors people living in LTC facilities have poor and deteriorating oral health and their access to oral health care is limited (Coleman and Watson, 2006). The main driver of their poor oral health is their dependence on the caregiving staff for daily living. Research has consistently indicated that oral care is given a low priority by staff, and is sometimes completely neglected for such residents (McKelvey, 2003). As these residents have been identified as a population that has poor oral health and neglected oral care, this thesis research sought to find what types and levels of oral care are provided to the dependent populations of LTC facilities in Quebec.

Purpose of the Study

The purpose of this thesis is broadly centered on increasing awareness and prioritizing the promotion of oral health for seniors. The focus is specifically on the lack of oral care in LTC facilities, as elucidated in the literature (Coleman and Watson 2006), and signaled by the presence of a vulnerable population – seniors with reduced mobility – residing in such facilities (Matthews et al., 2012). There have been few ‘real time’ observational studies in Canada – and to our knowledge none in the province of Quebec – that define the actual oral care provided to

the residents of LTC facilities. Real time observations collect data from the field where events are happening naturally. Previous studies in this area are mostly self-reported questionnaires or surveys either answered by ANS or the residents of LTC facilities. We wanted to observe the actual provision of oral care first hand.

The main goal of this study was thus to describe oral care, a key aspect of personal maintenance provided by the ANS, during the morning care activities in two LTC facilities. According to Canadian Dental Association guidelines, oral care should include care of the teeth, dentures and oral cavity (Fiske et al., 2000). Additionally, we sought to understand factors, which inhibit or facilitate the provision of this care, the delivery methods used by the ANS, and the time spent on oral care relative to other personal care activities. Thus, this study aimed to provide valuable knowledge about oral care practices in LTC settings and factors associated with its provision, or lack thereof. By improving the oral health of LTC residents there may be a decreased risk of oral infections and other associated co-morbidities, thus improving overall quality of life (Terpenning & Shay, 2002).

The concept and framework of our research was adapted from a research study conducted by Coleman and Watson in 2006 in New York State, USA. The purpose of their research was to describe the actual oral care provided by ANS to dentate elderly nursing home residents who require assistance with oral care. Keeping the same idea and background, we wanted to execute a similar study to find out the oral care for dependent populations in LTC facilities in Canada. We thus based our study model on Coleman and Watson's 2006 study using the same observational tool to collect real time observations of oral care provided to the residents by the ANS. We expanded the focus, incorporating dentate, partially dentate and edentulous residents in our study; thus we had to modify the observational tool slightly to encompass all dental statuses

Special Care Facilities

There are different types of housing options for seniors in Canada that provide assistance, care and other services to help with daily living activities. These options are dependent on the condition of the elderly person seeking care, and whether they are prompted to search for housing because of a chronic illness or disability that cannot be dealt with on their own, or simply because they want to be in a comfortable environment, such as a retirement home or senior home.

Independent-living houses are designed for seniors aged 55 and over, providing seniors a home-like environment, with communities offering services, amenities, recreational and social activities and club houses. Independent living facilities are exclusively for independent seniors requiring little or no assistance with daily living activities. This population is not generally considered vulnerable, as the majority is not living with chronic illnesses or disabilities. For this reason, these facilities do not have medical or nursing staff on site. Independent living is also known as retirement communities, retirement homes, congregate care, active adult communities, senior housing, or continuing care retirement community (Zimmerman et al., 2003).

In contrast to independent-living facilities, assisted-living facilities are designed for populations that require some help with daily-living activities like bathing, dressing, getting around the house, and grocery shopping, cooking meals, getting to the bathroom in the night, and keeping appointments. This type of facility serves populations that are partially dependent. Residents in these facilities get the support they need while being as independent as possible. This type of facility is considered an intermediate residential care facility, between the independent living facility and LTC facilities. These independent living facilities have other

names, such as residential care, board and care, congregate care, adult care home, adult group home, alternative care facility, or sheltered housing (Zimmerman et al., 2003).

In this thesis, we are focused on LTC facilities. A LTC facility is a caregiving facility that provides the highest level of care to its residents outside the hospital. LTC residents are mostly living with advanced age, complex conditions, chronic illnesses and/or disabilities that makes them dependent on nursing staff for their daily living activities. These facilities provide accommodation and on-site supervised care 24 hours a day, 7 days a week. LTC facilities provide custodial care, which includes getting in and out of bed, feeding, assistance with bathing, and dressing. LTC facilities also provide medical care, which is what most differentiates them from other senior living facilities. Each patient's case is supervised by a licensed physician and a nurse or other trained medical professional. Certified and trained nursing care is also available on site, 24 hours a day. The facility may also provide other trained professionals such as occupational therapists, which enables the delivery of medical care and procedures that would not be possible in other care settings. Populations residing in LTC facilities are considered amongst the most vulnerable as they are almost entirely dependent on the caregiving staff.

Definitions of Oral Health and Care

For the purposes of this Master's thesis, the terms oral health, oral hygiene and oral care are defined as follows:

Oral health: “the state of the mouth and functioning of the oral cavity without evidence of disease” (Registered Nurses' Association of Ontario [RNAO], 2008). According to Health Canada: “Oral health refers to the health of your teeth and your mouth. Maintaining good oral health includes keeping your teeth free from cavities and keeping your gums free from disease” (Health Canada, 2009).

Oral hygiene: “the practice of keeping the mouth (i.e., including the teeth, gums, tongue, mucosal surfaces and the hard and soft palate) clean and healthy by brushing and flossing to prevent tooth decay and gum disease” (RNAO, 2008).

Oral care: the process of oral hygiene (brushing, flossing, etc.) is a basic measure to prevent and control dental decay, gingivitis and disease (Marvin, 2001).

Types of nursing staff

For the purpose of this thesis, we defined ANS as the nursing and personal caregiving staff in LTC facilities involved in assisting with daily living activities and provision of care to the residents. ANS thus includes registered nurses (RN), licensed practical nurses (LPN), and certified nursing assistants (CNA), which is a category that includes nursing aids (NA) that are also called orderlies.

According to the Canadian Nurses Association, in Canada, a ‘Registered Nurse’ (RN) is a licensed professional who has acquired an associate college or university degree (often 2 to 4 years) in nursing. The RN provides skilled nursing care, with training focused on critical thinking, patient assessment, and making judgments. They are trained to handle risky situations like working with critically ill patients or monitoring sensitive drugs. RNs work in hospitals, LTC facilities, home health, and many other settings.

Licensed Practical Nurses (LPN) attend a nursing school for 1 to 2 years to obtain their certification. They receive a diploma but do not hold a nursing degree. LPNs scope of practice is more basic than RNs. They are trained to provide basic bedside care such as bathing, dressing, feeding and personal hygiene, and learn to give more advanced care for patients. They can measure and record patients' vital signs, prepare and give injections and enemas, monitor

catheters, and dress wounds. Their scope of practice also includes monitoring patients and reporting any adverse reactions to medications and treatments (Sorrentino & Remmert, 2013).

LPN's are also tasked with supervising nursing assistants and other caregiving staff. They gather patient information such as their history and also update patient records and are authorized to use this information to complete insurance forms, referrals and other pre-authorizations. This information is used to update physicians and other staff members to help develop the best course of care for the patient. They are also responsible for educating the patient's family in how to care for their family member. LPN practitioners are generalists and can practice in any area of care. LPN's who work in specialized settings tend to get additional training for that particular office, such as LTC facilities (Sorrentino & Remmert, 2013).

Certified Nursing Assistants are care providers assisting individuals who have disabilities, chronic illnesses and other healthcare needs. They work under the supervision of RNs, LPNs or other health care professionals. Within the LTC facility, they are responsible for providing basic nursing care to residents and helping them with daily living activities. They do not require a license to work; however, they must be certified via an official course (between 3-6 months) (World Health Organization, 2010). Other common names include: nursing aide, nursing assistant, personal care worker, and orderlies.

In Canada, it is not mandatory for LTC facilities to have all types of nursing staff on board. The most common pattern is to have an RN as the head nurse of a floor or unit and who leads the nursing team. The head nurse supervises floor nurses (often LPNs) who in turn monitor the certified nursing assistants who are mostly responsible for delivering routine daily care (Sorrentino & Remmert, 2013). The head nurse is responsible for designing and delegating care

duties. The caregiving staffs are trained to execute those instructions within the caregiving guidelines.

Altogether the ANS form the largest group of health care workers in LTC facilities. They are mainly responsible for assessing, planning and reporting care. Other duties such as involving families, scheduling appointments, and maintaining logs are also ANS responsibilities. LTC also includes inter-professional health services responsible for providing therapeutic care (i.e., nutrition, recreation, occupational health, physiotherapy, psychotherapy, speech language pathology and respiratory therapy), social work and dispensing medication (Xyrichis & Lowton, 2008).

Summary

In summary, dependent residents living in LTC facilities rely on ANS for the majority of their routine daily care, which includes feeding, grooming, bathing, toileting, oral care and contributing to their sense of normality and well-being (Francesca, 2011; Chalmers, 1996). The purpose of oral care is to keep the lips and mucosa soft, clean, intact and moist. Cleaning the mouth and teeth (including dentures) of food debris and dental plaque is meant to alleviate any discomfort, enhance oral intake and prevent halitosis (Fitzpatrick, 2000). These activities also help prevent oral infection (Arkell and Shinnick, 2003). Thus, oral health care for LTC residents should include care of the teeth, soft tissues, cleaning of dentures and the oral cavity, along with other measures adapted for oral hygiene. The literature shows that proper oral care helps maintain general systemic health and quality of life (Kandelman et al., 2008).

The literature suggests, however, that oral health is below standard and is an urgent problem for LTC residents in North America (Kambhu & Levy, 1993; CDA, 2010) as well as in other countries (Stein & Henry, 2009). Poor oral health may also have much broader health and

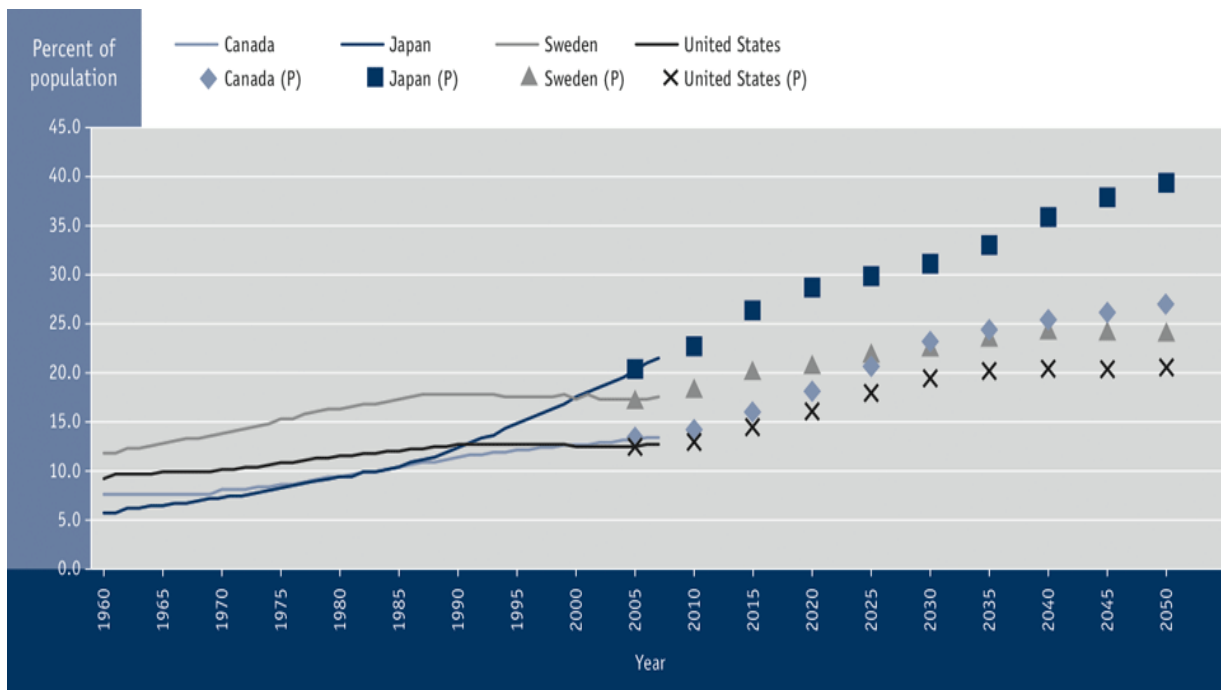
quality of life implications. In most LTC facilities, daily oral hygiene is given a lower priority as compared to other care activities (Wårdh et al., 2000). The need for specialized research tools to assess oral care in the elderly population in LTC facilities has also been emphasized (Chalmers & Pearson, 2005; Sjögren et al., 2008). Thus, the focus of this study was to observe whether adequate oral care was provided to LTC residents on a daily basis or not during their morning care routine.

CHAPTER 2: LITERATURE REVIEW

Demographics: The Aging Population in Canada, and in Quebec

According to a 2010 report issued by the Public Health Agency of Canada (PHAC), Canada's population is aging. In 2011, about 5 million, or 14.8% of the population, were seniors, aged 65 and over (Statistics Canada/Census, 2011). Of this population, 15.9% live in Quebec. It is estimated that by 2050, the elderly in Canada will represent 28% of the total population (Statistics Canada, 2011).

Figure 1: Proportion of population, aged 65 years and older, select countries, 1960 to 2007, projected 2010 to 2050.

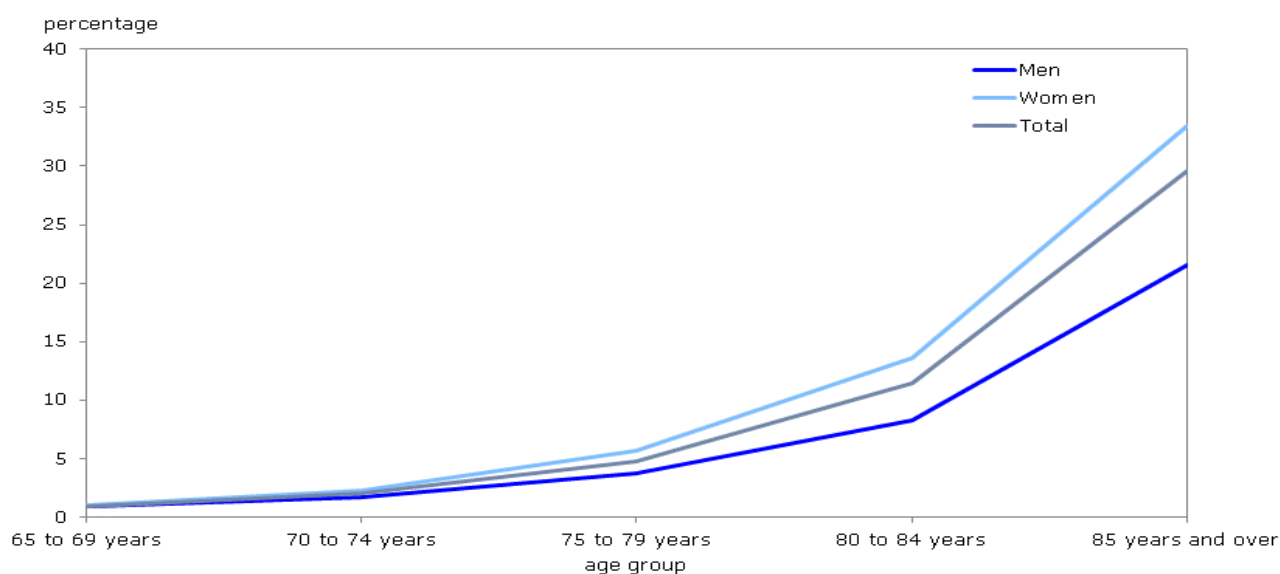


Source: Public Health Agency of Canada (2010). Organisation for Economic Co-operation and Development (OECD) Health Data 2009 and United Nations. ([http:// phac-aspc.gc.ca/cphorsphc-respcacsp/2010](http://phac-aspc.gc.ca/cphorsphc-respcacsp/2010))

In fact, the growth of the elderly population will account for close to half of the growth of the overall Canadian population in the next four decades (Statistics Canada, 2011). These trends are similar to other western nations (Kinsella & Velkoff 2001; Christensen et al., 2009). In many western nations, the majority of the elderly populations reside in LTC facilities (Dolan, 2005; Tomiak, 2000).

In 2011, Statistics Canada reported 1% of Canadians age 65 to 69 lived in special care facilities (Statistics Canada/Census, 2011). This number increases to 29.6% for Canadian seniors age 85 and over (see Figure 2).

Figure 2: Percentage of the population aged 65 and over living in special care facilities¹ by age group, Canada, 2011



Note: 1. Refers to nursing homes, chronic care or long-term care hospitals and residences for senior citizens.

Source: Statistics Canada, Census of Population, 2011([http:// 12.statcan.ca/census-recensement/2011/](http://12.statcan.ca/census-recensement/2011/))

The census report shows 7.9% of these people live in some type of assisted-living facility such as LTC facility that provides health care (Statistics Canada/Census, 2011). As individuals age, they are more inclined to live in specialized dwellings like nursing homes, homes for seniors/retirees, chronic care and long-term care facilities that offer continuing support through health monitoring, nursing care, as well as therapeutic and some treatment options (Harrington et al., 2005).

In Canada there are 28,835 collective seniors' dwellings, of which 7,370 are in the province of Quebec (Statistics Canada/Census, 2011). These facilities include all types of residences for senior citizens, including health care and related facilities that provide support and assistance services for daily living activities and LTC facilities that provide professional health monitoring, 24 hour nursing care and treatment.

Long Term Care Facilities in Canada

Whether LTC facilities in Canada are privately owned or publicly funded, they are regulated and licensed by provincial regulatory bodies. According to the latest Statistics Canada report released in 2013, there are 5,203 LTC facilities in Canada and 1045 in Quebec. In 2011, Statistics Canada reported LTC facilities provided care for 242,795 residents and this number is likely to rise given the increase in the number of LTC facilities. The licensing bodies have classified LTC into 3 categories:

Type-1 is a facility providing care to residents who are mostly mobile and have only minimal physical or mental disability and require minimal assistance for activities of daily living.

Type-2 provides care for residents who are most living with chronic disease or disability, requiring nursing and medical assistance.

Type-3 deals with more advanced types of caregiving to residents who require 24-hour professional medical and nursing services. These residents have advanced-stage chronic conditions and functional disabilities that require continuous monitoring.

According to a policy document published by Canadian Healthcare Association in 2009 “New Directions for Facility-Based Long-Term Care,” LTC facilities are homes for residents who have complex physical and health needs that are unable to stay at home (Canadian Healthcare Association, 2009). These facilities provide housing, hospitality and health services to its residents who require long-term care. Accommodation includes lodging that can be in a private or a shared room on a permanent basis. Full time meals, snacks and other services like laundry and housekeeping are provided within the facility. For the most part, the facilities are not responsible for providing personal clothing or personal items such as toiletries. Transportation to or from the facility is usually not part of the accommodation. These facilities have social activity programs for the residents, so that they can remain socially active and LTC facilities focus on residents’ personal space to create a home-like environment.

Health services in LTC facilities include on-site professional nursing staff around the clock, seven days a week. Nursing staff provides clinical management and treatment of skin and wound care (e.g., bed sores and other rashes), medication, artificial feeding, ventilation assistance and ostomy care. Availability of such services and provision of RNs or LPNs makes these LTC facilities different from other care-providing facilities where professional staff may not be available around the clock.

Another basic component of LTC facilities is the personal care provided to the residents. Health care staff, NAs, orderlies, who are primarily responsible for assisting with daily living activities, provide this care.

Ambulatory and mobility equipment (e.g., wheelchairs, walkers, geriatric chairs and bathroom/toilet utilities) are the responsibility of the facilities and are provided to the residents for their use, depending on their needs. According to the regulations set by Health Canada and the provinces, residents are required to have access to a physician. This physician can be either the resident's personal family doctor or one on staff at the LTC.

Long Term Care in Quebec

According to Statistics Canada (2011), Quebec has 1,045 LTC facilities providing care to 62,185 seniors. It is likely that the predicted increase in the elderly population will create an increase in the demand and utilization of LTC facilities and similar services.

The LTC facilities in Quebec and other parts of Canada use a scale called the Functional Autonomy Measurement System (SMAF) to determine the functional ability of their residents.

Figure 3-A: Sample part of SMAF assessment scale

A u t o n o m y a s s e s s m e n t s c a l e



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Name : _____

Dossier : _____

Date : _____ Assessment # : _____

DISABILITIES	RESOURCES	HANDICAP	STABILITY*
	0. Subject himself 2. Neighbour 4. Aides 6. Volunteer 1. Family 3. Employee 5. Nurse 7. Other		
A. ACTIVITIES OF DAILY LIVING (ADL)			
1. EATING			
[0] Feeds self independently _____ -0.5 [with difficulty]	Does the subject presently have the human resources (help or supervision) necessary to overcome this disability? ☐ Yes _____ ☐ No _____ Resources: ☐ ☐ ☐		- + +
[-1] Feeds self but needs stimulation or supervision OR food must be prepared or cut or purged first [-2] Needs some help to eat OR dishes must be presented one after another [-3] Must be fed totally by another person OR has a naso-gastric tube or a gastrostomy ☐ naso-gastric tube ☐ gastrostomy			

* STABILITY: In the next 3 or 4 weeks, it is foreseeable that these resources will: ☐ - lessen, ☐ + increase, ☐ - remain stable or does not apply.

Figure 3-B Care table for SMAF evaluation.

SMAF CARE TABLE

Name: Usager 1 Room: 311 Date: 2006-05-29

Legend: ● INDEPENDENT ● WITH DIFFICULTY ● SUPERVISION OR STIMULATION ● HELP ● DEPENDENT

ACTIVITIES OF DAILY LIVING

Getting out of bed: ● Daily rounds: ● Putting to bed: ● Other: ●

1. EATING

a) ● b) ● c) ● d) ●

2. WASHING

a) hair: ● b) nails: ● c) cream: ● d) ● e) schedule: mini-wash: ● s. bath: ● f. bath: ●

3. DRESSING

a) dirty laundry: ● b) change clothes: ● c) look after clothes: ●

4. GROOMING

a) ● b) ● c) ● d) ● e) own teeth: ● f) mouthwash: ●

5. URINARY FUNCTION

a) ● b) ● c) ● d) ● e) ● f) ●

6. BOWEL FUNCTION

a) ● b) ● c) ● d) ● e) ● f) ●

7. TOILETING

a) ● b) ● c) ● d) ● e) ● f) ●

MOBILITY

1. Transfers: ● 2. Walking: ● 3. Prosthesis or orthosis: ●

4. Getting around: ● 5. Negotiating: ●

Source: The eSMAF: a software for the assessment and follow-up of functional autonomy in geriatrics (Boissy et al., 2007).

This is a 29-point scale that measures the individuals' ability in five different areas: activities of daily living, mobility, communication, mental functions and instrumental activities of daily living. This scale was designed based on the World Health Organization's disability classification and has a built-in categorization system. This scale determines level of care required and residents are assigned to the designated level of LTC facilities from this assessment.

In Quebec, LTC facilities can be publicly funded or privately owned. Most of the LTC facilities work in agreement with the provincial government's *Régie de l'assurance maladie du Québec* (RAMQ) but some private ones do not. For those facilities that work within RAMQ, the admission requirements and affiliated costs are set out in the agreement; the other facilities have their own terms and conditions. All the facilities are monitored and checked for standards and

other regulations by government agencies. Non-RAMQ affiliated facilities differ only in that the cost for the residents is not covered by the provincial government and residents have to pay privately.

Oral Health Status of Elderly Canadians

Caries, periodontal diseases, tooth loss, xerostomia, stomatitis, candidiasis and cancer are some of the oral problems seen in elderly populations (Gonsalves, Wrightson & Henry 2008). The Canadian Health Measures Survey (CHMS), conducted from 2007 to 2009, assessed the health status, including the oral health, of the Canadian population (Garriguet et al., 2011). The study sampled 5,600 Canadians from approximately 97% of the population. Five sub-groups were formed based upon age: 6–11, 12–19, 20–39, 40–59 and 60–79 years. The survey included questionnaires as well as oral examinations. Dentists performed the oral exams based on the World Health Organization's (WHO) criteria for clinical standards. The observations were recorded for occlusion, caries, oral lesions, plaque index, periodontal health status, edentulousness, dentures and trauma. Caries experience was measured using the WHO index of decayed (D), missing (M) and filled (F) teeth (DMFT) and periodontal pockets were probed to evaluate the periodontal health status. The main purpose for conducting this survey was to gain statistical knowledge about the current health status of Canadians and aid in developing new health policies (Health Canada, 2012).

According to this report, the oldest age group (60-79 years) showed the highest DMFT, which was 15.7 (D=0.4, M=5.6, F=9.7). These scores demonstrate that the oral health status of this population in Canada need attention.

Importantly, the CHMS shows that the rate of edentulism in Canada – like other western countries – has declined (Douglass, 2005). In 1990, Statistics Canada reported 43% of people

age 65 years and above were edentulous, whereas this figure went down to 30% in 2003 (Millar & Locker, 2005) and finally to 22% in the current CHMS. Studies also show that more Canadians are currently retaining their natural teeth (Douglass, 2005; Mojon, Thomason & Walls, 2003) Including the CHMS, which reports that 58% of the 60 -79 years category had retained 21 or more natural teeth.

In the CHMS report, 11% of the senior participants had active and untreated root caries and 31% had periodontal disease. It was also found that 13% avoided seeing a dentist and 16% were reluctant to get dental treatment due to cost issues. The study also found that 13% of the elderly without natural teeth avoided certain foods due to their oral problems and 7% reported constant pain. The actual discomfort prevalence in the older group could be skewed as they may relate pain with nausea or misinterpret pain (Gibson & Helme, 2000; Helme & Gibson, 2001). Another Canadian study reported that denture stomatitis was present in 20% of edentulous seniors, while 41% of the edentulous seniors had oral soft tissue problems that required some dental treatment (Webb 2005).

Oral Health Care System in Canada

The Canadian health care system was designed in the 1950s on the idea that sick people belong in hospitals (Deber, 2000). Currently this system, based on the Medical Care Act of 1966, is a publicly funded health insurance program. In 1984, the Canada Health Act was passed, integrating the 1966 Medical Care Act and the 1957 Hospital Insurance and Diagnostic Services Act. According to Health Canada (2002), this new Act addressed five principles “(a) *public administration* on a non-profit basis by a public authority; (b) *comprehensiveness* – provincial health plans must insure all services that are medically necessary; (c) *universality* – a guarantee that all residents in Canada must have access to public healthcare and insured services on

uniform terms and conditions; (d) *portability* – residents must be covered while temporarily absent from their province of residence or from Canada; and (e) *accessibility* – insured persons must have reasonable and uniform access to insured health services, free of financial or other barriers.” (Madore, 2005; Canada Health Act Overview, 2002). These five principles are focused on safeguarding equity in the health care system to reduce discrimination to access the services. One has to be a legal permanent resident or Canadian citizen to be eligible for this program.

Thus, the Canadian health system is a federal program that fully insures medical emergencies requiring hospital care, regular health maintenance and improvement care provided by a family doctor. Importantly, the Canadian health care insurance policy excludes dental treatment; other than emergency oral procedures performed in the hospitals, all dental services are excluded from the health plan. There are a few exceptions to this in some Canadian provinces, where basic dental treatment and services to children, Armed Forces personnel and, at times, residents receiving social assistance from the government are provided (Yao & MacEntee, 2014). In Alberta and Yukon, for example, seniors can obtain some basic financial assistance for dental treatment (Yao & MacEntee, 2014).

Canadian residents can purchase private insurance that covers dental treatment for themselves or their families. Some employers provide health insurance, which may include dental treatment; however, self-employed, part time/contractual workers and those working for small business often do not have this extra coverage. Dental treatment is considered costly (Wallace & MacEntee, 2012) and people without insurance often cannot afford dental treatment (Locker, Maggirias & Quiñonez, 2011); this may cause suffering and general harm to health and quality of life. After retirement, people often lose their insurance, requiring them to pay from

personal funds. According to Leake and Birch (2008) this reflects an inequity in the medicare system and requires some reforms to ensure consistent quality of dental healthcare for the elderly.

Oral Health Problems of Seniors' in LTC Facilities

Since oral health has an impact on general health and quality of life, it is important that seniors in LTC facilities receive consistent, quality oral care. Older people experience high levels of tooth loss, dental caries, periodontal disease, xerostomia and oral pre-cancer and cancer. The negative impact of poor oral conditions on the quality of life of older adults is an important public health issue. Various factors, like declining general health, make seniors more prone to oral problems especially when they become more physically and cognitively impaired (Petersen & Yamamoto, 2005). Further, as these adults age they become more and more dependent on others, especially on the nursing staff, to provide basic daily needs such as oral care (Coleman & Watson, 2006).

Dry Mouth: Saliva has several important functions in the oral cavity. It helps in chewing and swallowing by lubricating food, while salivary enzymes aid in the digestion of certain foods (Bongaerts, Rossetti & Stokes, 2007). Dry mouth (xerostomia), a condition in which there is decreased salivary flow, is a problem in the oral health of LTC residents (Galzar, 2010). This condition is common among the elderly and is often associated with long-term use of prescribed medications (Locker, 2003). The prevalence of dry mouth in LTC residents can range from 10% to 75% (Galzar, 2010; Gerdin, 2005). Many medications contribute to dry mouth, which can enhance oral problems (Gerdin et al., 2005). People with dry mouth often complain of difficulty chewing and swallowing, mouth pain, speech difficulty and at times, poor sense of taste. It has been suggested that lack of oral hygiene can have harmful effects on soft tissues and tooth decay

in such existing conditions (Marchini et al., 2006). Improving oral hygiene and providing interventions, such as artificial saliva and fluoride rinses during regular oral care, can minimize the effect of dry mouth (Coleman, 2002).

Oral infections and inflammation: Inflammatory conditions like stomatitis (inflammation of mouth and lips) and oral infections are linked with poor oral hygiene (Grimoud et al., 2005) and can reduce normal mouth functions and overall quality of life. Old age and a number of medications contribute to such oral conditions (Grimoud et al., 2005; Abe et al., 2001). The prevalence of candida infections can be as high as 77% in LTC populations (Grimoud et al., 2005). Regular oral care can help reverse these conditions, and decreasing the oral colonization of candida albicans can reduce the chance of infection.

Caries: The prevalence of dental decay in LTC populations can range from 50% to 100% (Maupome et al., 2003; Reed et al., 2006). A study done by Wyatt in 2002 with LTC residents reported that 78.6% of the population had at least one carious dental lesion and at least 68.8% of residents had root caries. It was also suggested that LTC residents are at higher risk of developing dental decay due to lack of proper oral care (Waytt, 2002). Routine oral care with nursing interventions can help to control or minimize such oral conditions (Coleman, 2002).

Gingival disease: Gingivitis is the inflammation of the gums (gingiva) and the supporting structures of the tooth. Accumulation of plaque at the gingival margins leads to non-destructive inflammation of the gums that is further enhanced by dental calculus (Pihlstrom et al., 2005). Calculus is a known tissue irritant and causes inflammation in the gingiva. Gingivitis is treatable and reversible; if left untreated it may lead to a more destructive form of periodontal disease called periodontitis (Lang, 2009).

Periodontal Disease: Periodontitis is the inflammation of the periodontium, the supporting structures and attachment structures of the teeth to the underlying alveolar bone (Armitage, 2003). The supra-gingival bacterial matrix can extend down under the gingival margin and become sub-gingival plaque. This sub-gingival region is known as the gingival crevice, located between the root of the tooth and the sulcular epithelium. It is this region, which becomes the periodontal pocket when it deepens and is left untreated.

Signs that represent periodontal disease include bleeding gums, large deposits of calculus and deep gingival pockets. The development and progression of this disease is also linked to poor oral care (Pihlstrom et al., 2005). This disease causes destruction of tooth-supporting structures and leads to tooth loss; therefore, keeping up good oral care in this specific population is critical.

The Association of Oral Health with General Health

While the literature suggests that poor oral health can affect general health (Sheiham, 2005), oral health's impact on general health is often misunderstood. The literature shows a strong link between periodontal organisms and infections like pneumonia, (Tada & Miura, 2012) and systemic conditions like diabetes and cardiovascular disease (Meurman et al., 2004). LTC residents are more prone to systemic illnesses overall, affecting daily living activities and health. Advanced age and immune-compromising diseases make residents more vulnerable to infections that can cause serious damage to health, prolonged hospitalization, and at times, fatal consequences (Pino, 2003).

Aspiration pneumonia

Aspiration of oral secretions and accumulated bacteria from the oral cavity is an important factor in developing pneumonia (Yoneyama et al., 2002). In LTC populations, aspiration

pneumonia is a very serious problem, often requiring prolonged hospitalization, and is one of leading cause of morbidity and mortality (Sjögren et al., 2008). Studies have shown that incidence of pneumonia increases with age. Seniors in LTC facilities are at six times greater risk as compared to younger age group (Kaplan et al., 2003; Loeb et al., 1999). Similarly mortality rate becomes higher for seniors and the occurrence of aspiration pneumonia is highest in LTC facilities (Marrie, 2002). A study conducted by Adachi and colleagues concluded that the incidence of aspirational pneumonia is greatly reduced with effective oral hygiene (Adachi et al., 2001). By cleaning the oral cavity daily, the accumulation of bacteria is greatly reduced (Sjögren et al., 2008). According to Sjögren and colleagues (2008), approximately one out of ten deaths caused by pneumonia in LTC residents may be prevented by improving their oral hygiene.

Other systemic diseases

A strong link between oral health and systemic disease is also supported by the literature. Salomon & Xiaozhe (2003) state conditions such as cardiovascular disease, diabetes, and respiratory diseases can be linked to poor oral health which can lead to periodontal disease, which in turn has been associated with cardiovascular diseases, atherosclerosis, sub-clinical lower artery disease, stroke/ cerebrovascular disease, metabolic/lipid disorders and obesity (Chalmers, 2003). In a systematic review, Chalmers (2003) reports dentate status, tooth loss and temporomandibular disorders are associated with hearing loss. Increased number of missing teeth has also been associated with coronary heart disease. In a study by Adachi and colleagues, it was seen that the systemic health and quality of life of the elderly living in LTC facilities was improved when they received proper oral health care from professionals (Adachi et al., 2002). The morbidity associated with overall oral disease, as well as systemic ailments associated with

oral disease can also be minimized by the provision of daily oral care (Terpenning & Shay, 2002).

Oral Health and Quality of Life

There is extensive literature showing that a person's poor oral health can have an impact on quality of life (Locker, 2003). Oral health can influence how seniors look, speak, eat, enjoy life and socialize and can alter physical ability and compromise psychological behavior (Gerdin et al., 2005). According to a study by Locker and colleagues (2000), poor oral health (e.g., pain, dysfunction and disability) was associated with having low morale, more stress and less life satisfaction, findings that were later supported by other studies (Allen, 2003; Ingram et al., 2005).

Loss of natural teeth, edentulousness, xerostomia, soft tissue injuries, or poorly fitting dentures have consequences for both systemic health and quality of life. Poor oral health can cause embarrassment, anxiety and withdrawal. Further, daily behavior and social interactions can be affected due to the pain caused by ill-fitting dentures, temporomandibular joint disorders, and oral infections.

Current trends in health sciences suggest that general health encompasses physical, psychological and social well-being. Disruption in any area of health may be an indicator for poor oral health (Akar et al., 2011). Previously oral health was only assessed based on obvious clinical signs; advances in health sciences suggests that disruption in physical, emotional, and social functioning are important in measuring oral health and oral health related quality of life in socio-dental approaches to accessing needs (Locker & Allen, 2007; Gherunpong, Sheiham & Tsakos 2006; Allen, 2003).

Nurses' Education and Certification in Canada

Canada has no federal registration or licensing body for the registration of nurses. Nursing registration and licensure are the responsibilities of the provinces (Berta et al., 2006). Registered Nurses (RN) register in the province or territory where they intend to work. There are separate regulatory authorities within each province and territory for each of the three regulated nursing professions: Licensed Practical Nurses (LPNs), Registered Nurses, and Registered Psychiatric Nurses (RPNs). RN are licensed professionals who have graduated from a recognized nursing program and have qualified to practice nursing according to the appropriate provincial legislation. All provinces except Quebec required an entry into baccalaureate program often 2 to 4 years. Quebec accepts entry into a diploma program for becoming RN (OIIAQ, 2008). Nursing students study psychology, child development, sociology, anatomy and physiology. The nursing courses include theory and clinical practice. In addition to learning social and physical sciences, university programs generally offer additional studies in leadership, health teaching, research and other disciplines. Registered Nurses practice in five major areas: direct care, education, administration, research and policy (Fooks & Maslove, 2004). RNs work in hospitals, LTC facilities, home health, and many other settings. (CAN-AIIC, 2015).

LPN graduate from an approved practical nursing program or equivalent. Canada has a regulatory authority that is responsible to regulate practical nurses (CCPNR, 2008). LPN attend a nursing school for 1 to 2 years to obtain their certification. They receive a diploma but do not hold a nursing degree. LPNs scope of practice is more basic than RNs. They are trained to provide basic bedside care such as bathing, dressing, feeding and personal hygiene, and learn to give more advanced care for patients (Sorrentino & Remmert, 2013). LPN's are also tasked with supervising nursing assistants and other caregiving staff. LPN's who work in specialized settings

tend to get additional training for that particular office, such as LTC facilities (Sorrentino & Remmert, 2013).

According to Human Resources and Skills Development Canada, a training program of approximately 750 hours over the period of three to six months is required to become a nursing assistant (NA) in health care facilities. Nursing assistants are known as orderlies, or *préposé aux bénéficiaires* (PABs) in Quebec. Training programs result in a diploma or completion certificate. The shorter programs are typically designed for students with some previous healthcare experience - whether as a personal care aide, volunteer or other analogous role - while longer NA programs are better suited for students who have no previous experience. As a Nursing Assistant, successful graduates provide basic patient care under the direction of nurses or other health care professionals. NAs are sometimes given minor medical duties such as measuring and recording temperature, blood pressure and other vital signs and assist with administrative duties and record-keeping that accompanies patient care (RHDCC, 2006)

Nurse's Assistant programs are located in vocational high schools, community colleges and independent healthcare training schools and provide basic health concepts and skills training. Longer programs may include additional classes such as communication skills, nutrition, and human anatomy and physiology. After completing a basic educational program, NAs can take additional skills training that may include working with complex patient care technology or specialized care of particular age groups, such as the elderly.

NAs do not require a license to practice, however certification is an option that leads to better job opportunities, as many employers require NAs to be certified. Beyond the education time commitment required to be a basic nurse's aide, about 75 hours of additional practical training is necessary for certification (Reitz, 2005).

The teaching curriculum of different nursing schools train NAs to provide assistance with routine tasks such as dressing, bathing, feeding and skin care, making beds and toileting assistance taking vital signs (blood pressure, pulse, etc.), assisting with range-of-motion exercises, safe patient handling devices, reporting and safety awareness. Majority of the textbooks followed during the training courses for ANS mention the importance of oral care and describes how and when oral care should be done. The lack is in transacting this knowledge into action and practically delivering the oral care in the residents' mouth (Alvare and Dugan, 2007; Coleman, 2002).

Recommended Oral Care for LTC Residents

In 2008, regional LTC facilities of Ontario took an initiative to develop a best practice approach to provide oral care in their facilities. Led by Horst and Scott, two coordinators of regional LTC facilities, the most recent information, guidelines and procedures on oral care was brought together onto a single platform, the resultant document, with is called 'Primary Care Oral Health of Older Adults Resource Kit' (2008) (Appendix 1). This resource kit was prepared by a team of clinicians, researchers, and experts who reviewed all the evidence in the health care literature, including gold standards in clinical practice for oral care defined by organizations like Canadian Dental Association, World Health Organization, Health Canada, and opinions of experts such as Registered Nurses' Association of Ontario. This information was systematically analyzed and accrued to create a set of recommendations.

One of the documents Horst and Scott included is an Oral Health Assessment Tool developed by Chalmers and colleagues in 2005 for Australian LTC facilities. This tool is currently used in most parts of Canada for oral health assessment (Compton & Kline, 2015; Horst & Scott, 2008). Assessment covers lips, tongue, gums and tissues, saliva, natural teeth,

dentures, oral cleanliness, and dental pain as well as an evaluation of oral health status and hygiene practices. It recommends to repeat oral assessment quarterly and annually to follow changes in oral health status, as well to provide oral care twice every day (Chamlers et al, 2005). Based on this assessment, an individualized oral hygiene care plan should be determined for the residents.

ANS conducting this assessment should be familiar with each resident's functional and cognitive conditions and review the oral care plan before initiating care. Further, nursing staff should promote oral care amongst the LTC residents, and if possible, independence in oral care should be encouraged. While older and dependent residents may forget, therefore it is important that ANS remind the residents about the oral care and follow all the steps of oral care procedure. Oral care should be supervised by the ANS for all the residents at risk of aspiration.

LTC Oral Care Procedures

Interventions for residents with natural teeth

According to the LTC Resource Kit mentioned above, hand hygiene is important and clean gloves must be worn – after washing hands – before starting the oral care. Resident should be positioned properly and comfortably with a clean towel placed on the resident's chest for those who get cleaning done while sitting or lying down. Natural teeth are brushed using small head with soft bristles and rubber grip with pea size amount toothpaste. Toothbrush is used to remove plaque and food particles from the teeth and tongue and stimulate circulation in the gums, which helps keep them healthy. A thorough brushing takes at least two to three minutes to clean all surfaces of the teeth. Toothpaste or mouthwash is not recommended for residents with swallowing difficulties and only water is recommended. Lemon glycerin swabs are not recommended for oral care. After brushing, dental floss is used to remove plaque and food

particles from between the teeth. The toothbrush should be replaced every three to four months or after any oral infection. Two toothbrush technique or wedges are used for residents who have limited mouth opening (Horst, Scott & Bowes 2008).

In addition, according to Canadian Dental Association, ideally brushing should be done after every meal. Most importantly, brushing should be done at least twice daily and always before going to bed (CDA, 2011). Further, tooth swab for swabbing oral cavity is considered inappropriate and should only be used in situations where brushing is not possible, as it is ineffective in removing plaque and calculus (Coleman and Watson, 2006).

Interventions for denture care

According to the LTC Resource Kit, clean gloves must be worn after washing hands before starting denture care. Prior to cleaning the denture, the sink where dentures are washed is lined with a protective towel to avoid any chip or breakage in case the denture falls. The sink is filled with cool water to avoid any denture heat distortion. Dentures are cleaned by brushing them with soft toothbrushes or denture brushes along with denture pastes to remove plaque deposits and food particles. Plaque and tartar form on dentures the same way they do on natural teeth. For this reason all surfaces of the denture are brushed thoroughly, as with natural teeth. Aggressive scrubbing or use of abrasive cleaners is not recommended. At night dentures are removed and placed in a cup containing denture-cleansing liquid. Soaking denture overnight is not sufficient for cleaning plaque and thus they should be brushed before placing them back in the mouth; a separate brush is used for any natural teeth. Oral soft tissues, gums, tongue and palate are brushed with soft bristle brush before placing the cleaned dentures back in the mouth. Dentures should be removed from the mouth daily for at least three hours or preferably overnight to avoid soft tissues inflammation and infection. Denture tablets are not recommended for

soaking dentures of residents with dementia, as they can be harmful if ingested'; vinegar water solution can be used instead.

The Canadian Dental Association and British Columbia Dental Association recommends that residents must have access to oral health professionals such as dentist and dental hygienist during the course of their stay in LTC facilities. Based on the ANS assessment and residents consultation, referrals to an oral health professional (dentist, denturist, dental hygienist) are made. Further, the LTC Resource Kit suggests new ANS (full and part-time) should receive oral hygiene care education and information during their orientation. Continuing education sessions such as workshops for ANS regarding oral care hygiene should be provided at least annually to refresh oral care knowledge (Horst, Scott & Bowes 2008).

Barriers to Provision of Oral Care

Inequity in oral care arises from financial, behavioral and physical barriers, and remains a challenge for residents of LTC facilities. Many barriers have been identified that limit the access to oral care especially for the older population, including cultural, language, financial, and physical barriers (Robbertz, 2006; Dolan, 2005). Attitudes of the health care providers can also affect quality of care. Health professions, along with Canadian government agencies, have a social responsibility to reduce this inequity for the benefit of all and specially seniors (Yao and MacEntee, 2014).

Lack of oral care focus in ANS training

In LTC facilities, the responsibility for oral care is usually assigned to frontline NA and studies have indicated oral care is given a low priority as compared to total body care in LTCs (Wårdh et al., 2000). The association between general health and oral health has been widely established (Locker, 2003), yet oral health receives less importance by the nursing staff of LTC

facilities and is inconsistent with routine daily care (Andersson et al., 2004). The ANS have limited knowledge and expertise to deliver oral care (Chalmers et al., 2002). It is suggested in the literature that inadequate knowledge and training about oral health is one of the reason for poor oral care in LTC facilities (Stein & Henry, 2009). Further, LTC residents who show care-resistant behaviors and are physically and cognitively dependent require well-trained ANS to perform proper oral care (Coleman, 2002).

Nursing schools in Canada have few guidelines in their teaching curricula regarding oral care (RNAO, 2008). The training of the ANS typically focuses on the medical aspects of personal care and may be inadequate in stressing the importance of oral hygiene care and maintenance (Nicol et al., 2005). According to Coleman, Nursing Assistants (NA) training provides only superficial instruction on how to conduct oral hygiene care (Coleman, 2006). Nurses training to be RNs and those specializing in gerontology nursing are taught basic procedures in oral care. ANS often do not have the expertise to evaluate oral disease and ensure healthy mouth (Wårdh, 2000). According to a study by Wårdh and colleagues, ANS in LTC facilities do not follow proper practices in providing oral health care to the residents because the nursing staff finds it difficult to access the oral cavity in the functionally compromised individuals. A study conducted by Frenklen (1999) revealed that some NA feared they might injure residents due to their lack of training and others felt disinclined to approach the mouth and clean teeth or prostheses. This study also revealed that functionally impaired residents were less cooperative in regard to oral care and there was a low priority placed on oral care by the administrative management of nursing homes. The nursing staff in Frenklen's study suggested prioritizing oral health care in LTC facilities while the study also emphasized that it is essential to provide basic oral care training to the ANS

Implementation of oral care policy and procedures vary from one LTC facility to another, which is another contributor for the delivery of poor oral care (Jones et al., 2013). Coleman has suggested various changes to ANS training curricula including collaboration with dental programs to ensure proper procedures are taught, and that subjects such as oral pathology, oral examination, the effects of drugs on dental work, and guidelines for prevention and referral should be part of their education and training (Coleman 2005). She further recommends that oral health issues and practices be incorporated into other courses such as health assessment, nutrition, and palliative care, and that upgrading for practicing nurses and NAs is vital. Research suggests there is a need to better educate and train ANS about oral health care measures (Jablonski et al., 2005). The Registered Nurses' Association of Ontario also recognizes that improved oral care education and upgrading is important (RNAO, 2006).

Shortage of staff

Studies have repeatedly pointed out the inadequate caregiving practices in LTC facilities. This issue was taken up by the media in Canada when, in 2010, CTV News exposed numerous problems related to LTC facilities. All these problems came down to staff shortages, causing existing employees to be overworked. A task-oriented environment is created under these circumstances, not allowing for individualized, quality time spent caring for residents. Overburdened caregiving staff are working in a hurried manner and have little time to chat with patients and at times have no time to interact at all (FAIRE, 2003; Health Canada, 2000). This trend needs to be changed especially with the growing population of elderly and the increasing need for residential care facilities.

Continuing education and workshops

LTC facilities do not stress the need for oral care continuing education and educational workshops on improving knowledge and training of oral care for caregiving staff (Hyer and Ragan, 2003). This widens the existing gap of knowledge as medical and health care practices change, new information is not necessarily being transferred to the ANS (Kortes-Miller et al., 2007). Kortes-Miller and colleagues (2007), believe the culture in LTC facilities places little emphasis or value on up-to-date staff education nor does the staff feel the need to advance their skills or knowledge to practice state of the art nursing care. This is likely due to the burden of work and the lack of incentives offered to encourage or motivate staff to improve their knowledge and skills through continuing education (Kortes-Miller et al., 2007).

Access to oral health professionals

The oral hygiene of physically or mentally compromised adults is difficult to maintain. One of the reasons identified is difficulty accessing dental health professionals. Not all LTC facilities have oral health professionals as a part of their inter-professional teams. Difficulties getting to a healthcare provider and long waiting times for appointments are examples of obstacles for older adults (Dolan, 2005). If the LTC facility does not have oral health professionals onsite then transportation and waiting for the appointments is harder to manage. Dental professionals working with vulnerable populations such as frail seniors also face challenges delivering oral care. Time management to facilitate the seniors' needs, as well as complex medical problems and lack of expert knowledge in geriatric care can be challenging.

Lack of funds for dental services

As people age and retire, they lose many benefits such as dental insurance. Lack of insurance and inability to pay out-of-pocket can restrict people from obtaining dental care; as

discussed above, oral health care is not covered by Medicare (CAPHD, 2001; Frankish, 2005; Wallace, 2012). These individuals are either unable to visit an oral health professional regularly, do not see a visiting oral health professional frequently, and in some cases may never see one. For these reasons older adults are not regular users of oral care services; consequently, oral disease is prevalent in this population. In order to preserve function and improve the overall quality of life of an individual, it is very important for them to have access to medical and dental care (Mason, 2000). Services provided by the facilities such as food, therapeutic care and other health and recreational services depend on the availability of funds. At times, residents or families with the means take on the burden of extra costs, feeling obliged to pay for services such as private personal care attendants to provide assistance with feeding, grooming and ambulation, which is, ideally, the responsibility of the care facilities (Canadian Healthcare Association, 2007).

Lack of oral care supplies

Access to basic mouth care supplies, such as toothbrush, toothpaste, mouthwash, denture cup, is important. At times oral care supplies can be missing or inaccessible to the ANS (Pyle, 2005). Missing supplies leads to missing oral care (Coleman & Watson, 2006). In a study conducted in the UK, a substantial number of ANS believed it was lack of supplies that results in oral care neglect (Frenkel, 1999).

Challenges for LTC Facilities to Initiate Oral Care Programs

A report prepared by the British Columbia Dental Association on Seniors' Oral Health (1999) identified barriers that LTC facilities encounter in developing and enforcing oral health care programs. The following are few important factors that were mentioned in this report:

- One of the main problems faced by the majority of LTC facilities is lack of resources and funding to initiate and run oral care programs.
- Away from big cities, it is difficult to enforce these programs. The location of the LTC facility has a huge impact on the implementation of oral care programs. Monitoring programs in LTC facilities in rural or remote areas as compared to urban areas is difficult and one of the limitations.
- Lack of public awareness and interest regarding oral care.
- Complex and integrated programs like oral care programs will require extra effort and without giving incentives to the working staff it is rather difficult to implement such schemes.
- Resistance to change and accept new programs by the nursing staff of LTC facilities.
- Such programs require governmental control and authority with respect to budgets that can sustain the cost of implementing such programs.

Recommendations to Facilitate Oral Care in LTC Facilities

There are numerous factors that limit seniors' ability in achieving optimal oral health. A report by British Columbia Dental Association, published in 2011, for seniors' oral health recommended improvements in Canadian oral health care system, including the establishment of basic preventative dental health coverage for seniors, and the integration of oral care into overall health care in order to minimize oral disease and enhance quality of life. It also recommended that provincial regulations be revised to make oral care more accessible to LTC residents, that oral health care training be standardized across ANS programs and should have a certain level of training to deliver oral care, including hands-on experience. Education in geriatric care should be expanded for dental professionals, and there should be increased awareness around the

connection between oral health and general health. Oral health should be considered a part of general health and its care should be considered an important part of overall care. Seniors and their families should be educated on the benefits of preventive hygiene and oral care.

Implementation is an important part of policy making and provinces must do a better job enforcing these regulations (BCDA, 2011).

Knowledge gap

The literature suggests that ANS are currently lacking the knowledge, skills and institutional contexts to deliver proper oral care as part of daily nursing care (Wyatt, 2008). According to the Canadian Dental Association (CDA), this lack of competency can cause harm to the aging Canadian population. A report issued by the CDA in 2008 suggests that implementation of educational standards and proper training should be provided to the ANS, so that appropriate oral care can be given in LTC facilities (CDA, 2008). Currently there is a lack of literature investigating the key aspects of oral care that is (or is not) provided to the functionally, cognitively and behaviorally impaired LTC residents in Canada. Since the ANS are the primary care providers for LTC residents, it is important to understand what problems and barriers they face in providing this care. ANS training also needs to be studied in detail to understand where they lack training in providing oral health care to the LTC residents. By taking these measures and investigating the reasons, it may become more apparent how and why oral care has been neglected in LTC facilities. Thus, for our study, we endeavored to begin to address these gaps by studying ‘real time’ oral care provision and barriers (if any) to functionally dependent adults in two LTC facilities in Quebec.

CHAPTER 3: DESIGN

Specific Aims/Research Questions

This study aims to answer the following questions:

1. What is the occurrence and duration of oral care for functionally-dependent LTC patients during morning care?
2. How much time is spent on other key aspects of morning care (e.g., grooming, bathing, toileting)?
3. What type of morning oral care practices are provided to LTC residents (e.g., type and amount of oral care supplies used for natural teeth/dentures; amount of time required to prepare the resident and materials used)?
4. Where was the oral care provided (e.g., location and position of the resident)?

Objectives

The objectives of this study are to describe the oral care provided during routine morning care in LTC facilities in the following ways:

1. To describe the occurrence and duration of oral care and its various components (i.e., oral care of the teeth, dentures and oral cavity).
2. To describe the time spent on total body care activity.
3. To describe the approaches used to deliver oral care (type of care and supplies used to deliver care).
4. To describe the location of the oral care (bedside, bathroom, other) and position of the resident (sitting, standing, lying down, on bed or wheelchair).

Methods

Study Design

This study followed a descriptive research design using a validated observational tool created by Coleman and Watson (2006) for residents of LTC facilities. The tool was modified to include edentulous participants (Appendix 2). This tool was used to collect real-time observations of morning care practices delivered by ANS. Observations were recorded for the following:

- a) Specific oral care-related practices (e.g., tooth brushing, denture cleaning).
- b) Factors that influenced the provision of oral care (e.g., resident resistance).
- c) Naturally occurring interventions used to accomplish this care (e.g., behavioral/communication strategies) and their effectiveness.
- d) Resistance to oral care. The Resistiveness-to-Care Scale developed by Mahoney (1999) (Appendix 3) was used as the basis for recording resistive behaviors during oral care (e.g., grabbing, pushing, and clenching mouth). All factors were scored as Yes/No.

Setting

The study took place at two LTC facilities in Quebec, Canada – Site A and B. Both sites offer a broad range of LTC services, including skilled nursing, transitional and rehabilitation services, dementia care and terminal/hospice care. Both sites expressed a willingness to participate in the study. The total resident capacity for these LTC facilities was approximately 350 residents; thus, sufficient numbers were obtainable for analysis by dental status, given the great heterogeneity in oral health status among older Canadians (Wyatt, 2002) and declining rates of edentulous

patients in nursing home populations (Wyatt, 2002; U.S. Department of Health & Human Services, 2000).

Sample

LTC residents were classified into three broad categories: dentate (i.e., having at least one or more natural teeth without prosthesis), partially dentate (i.e., having at least one or more natural teeth and a dental prosthesis), and edentulous (without any natural teeth wearing complete dentures). The administrative staff and the head of the nursing units at each LTC facility performed initial screening of residents meeting the study criteria. The residents were identified with the help of their charts and discussions with the Head Nurses who were most familiar with the residents' daily oral care and their dependence on that care. It should be noted that the LTC facilities that took part in our study were type 3 level facilities that provided complex continuing care.

Inclusion/Exclusion Criteria for Residents

Inclusion criteria: Residents who were 65 years of age or older, dependent in oral care (i.e., requiring physical assistance to brush/floss their own teeth, dentures, or care for their own oral cavity) were considered eligible. Clinical conditions were assessed to identify residents who were dependent on the ANS for their oral care needs (e.g., residents who had experienced stroke, arthritis, Parkinson's disease, dementia, depression, diabetes mellitus, psychiatric illness, dehydration, nothing per oral status [NPO], salivary gland dysfunction, and presence of active oral problems).

Exclusion criteria: Residents were excluded if:

1. The resident was unwilling to be observed during morning care.
2. The resident was comatose, or imminently close to death.

Residents who were comatose or near death were excluded because they required specialized rather than routine oral care, which may not have been reflective of routine oral care practices in the LTC population.

Inclusion/Exclusion Criteria for Allied Nursing Staff

ANS providing care for the qualified and consented residents, who met the following inclusion/exclusion study criteria, were eligible:

Inclusion criteria: ANS providers caring for residents who consented to being in the study and therefore were willing to be observed. In addition, they must:

1. Have at least three months experience as an ANS provider.
2. Be the primary ANS provider of the resident participant.

Exclusion criteria: The ANS provider was not included if:

(1) They were employed/contracted by an outside agency or if they were unwilling to be observed.

Ethics

McGill Research Ethics and Compliance (IRB) provided the ethics approval for this project. Ethical approval from Hospital A and Hospital B was also acquired.

Recruitment of residents and consent: Residents were screened for the inclusion criteria. Once prospective residents were identified, informed consent (Appendix 4, A & B) were requested from eligible residents and/or their family members, promising confidentiality, anonymity, data security, and the maintenance of all patients' rights. For those residents who could not give consent themselves, an information letter explaining the study along with the

consent form was sent to the family members/guardians so that they might give consent on behalf of the residents.

ANS recruitment and consent: Once informed consent was obtained from residents and/or family member proxies, a list of ANS providers caring for these residents was obtained from the Head Nurse. An information sheet explaining that the study was meant to evaluate the morning care of functionally-dependent patients was provided to ANS. Consent (Appendix 5) was secured from eligible ANS providers prior to unit observation for residents' morning care.

The ANS were informed that their names would not be recorded and were told that the only personal information that would be gathered would be demographics such as age, gender, years of experience, and education level.

Note: The study's focus on oral care was not disclosed either to the ANS or other staff or the residents and their proxies.

Data Collection

Resident chart review

Prior to morning care observations, the Head Nurses reviewed the participants' medical charts for relevant information related to oral care needs. This made sure that the residents were above the age of 65 years and dependent in oral care.

Observations

Observational methods were used to collect data about oral care practices during morning care, and factors influencing its provision, or lack thereof. The residents and their families / guardians and the ANS were blinded to the oral health focus of the study; thus, the MSc student observed the entire morning care routine from beginning to end to ensure the anonymity of

study's focus on the oral care. Details of oral care and other personal care activities were recorded by the MSc student, using researcher-constructed observational notes and structured observational tools (See Appendix 2). The MSc student and another research student collected the data from the first ten observations to perform the inter-rater reliability for the observational tool measuring oral care standards (present or absent) and residents' resistive behavior (yes/no). Since all the observations were binary (1 referring to yes /2 referring to no) or dichotomous (present/absent), percentage analyses of 10 observations were considered adequate to compare the scores.

Observations took place in the residents' rooms or bathroom. The residents were observed for the entire time period of morning care. The observer entered the room or the bathroom along with the ANS, being as unobtrusive as possible. Observations included the time spent (minutes/seconds) on personal care activities, including grooming, oral care, bathing and toileting for all residents. Observations began when the ANS greeted the resident or indicated that care was about to begin or when the ANS started to prepare supplies (e.g., pull curtain, shut door, and gather wash-basin/cloths). Cues and prompts, including phrases such as "good morning," or "it's time to get washed/dressed," also indicated when care was starting. Observations ended when the ANS prompted the resident (e.g., "OK, you're done") or finished putting away supplies, whichever came last.

Observations of oral care began when the ANS started to assemble oral care supplies (e.g., emesis basin, toothbrush) or when the ANS prompted the resident that it was time to brush (e.g., "let's brush your teeth"), whichever came first. Oral care was considered to have ended when the resident stopped brushing/denture cleaning or, the ANS prompted the resident (e.g., "OK, you're done"), or the ANS finished putting away supplies, whichever came last. Timing of tooth

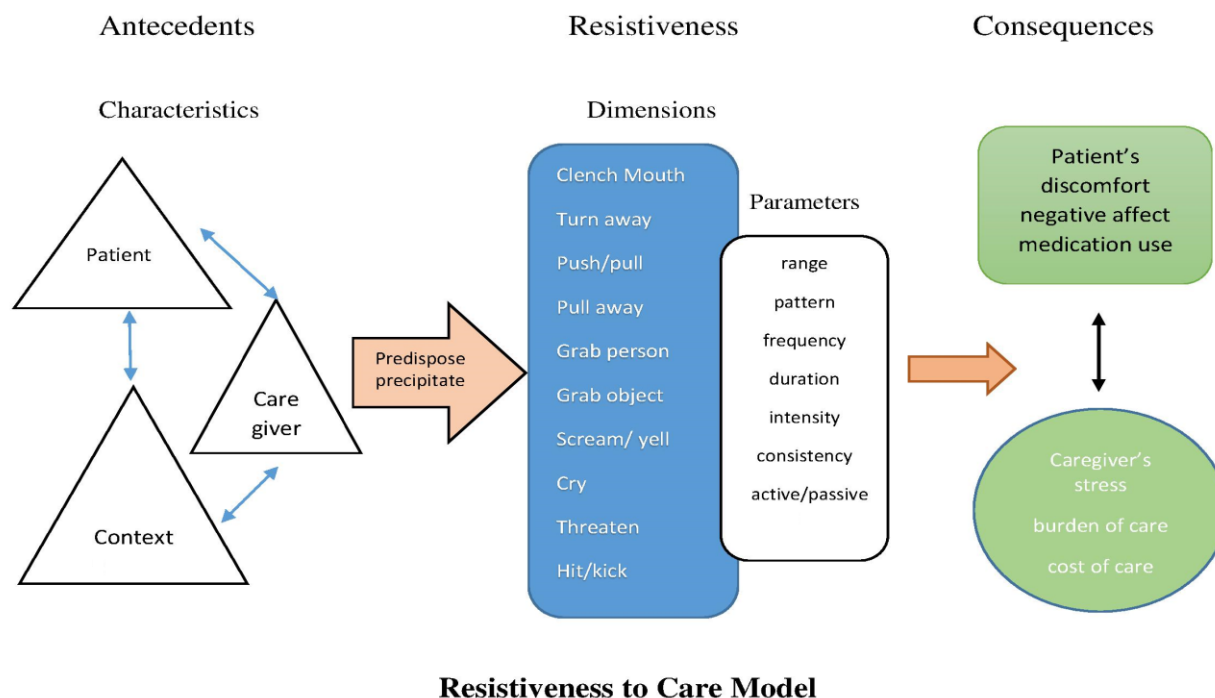
brushing/denture cleaning was done with a digital stopwatch, recording start and end times. Timing began when the ANS/resident placed the toothbrush on tooth surfaces and started brushing, removed the denture, or approached any other oral cavity cleaning supply. Timing ended when the ANS stopped and began to put supplies away or, cues from the ANS indicating that brushing/cleaning was done (e.g., “You’re done”). Interruptions and resistance to oral care was recorded during the process of caregiving. Any form of intervention or any event leading to diversion from oral care was recorded with the stopping of timing and resuming if/when the delivery of oral care resumed. Observation of ANS oral care practices during morning care included attention to infection control (e.g., using gloves, washing hands), types of tools (e.g., toothbrush, toothette, toothpaste, floss) and products used (e.g., mouth wash, denture cleansers), as well as oral care methods (e.g., cleaning/removing/rinsing dentures, cleaning teeth and oral cavity, assembling appropriate supplies, positioning and/or gaining resident’s cooperation).

Observational data recorded factors that influenced how oral care was accomplished (or not accomplished). These included contextual/environmental factors such as location, nature of stimulation present (e.g., auditory, interruptions), and interpersonal factors (e.g., number of people present). ANS provider-related factors included behavioral and communication approaches and responses (interventions) to resistance. Resident-specific factors were included in observations such as resistive behaviors, level of consciousness, position of resident, resident care activity and needs during oral care (e.g., discomfort, incontinence causing distress, pain). Resistive behaviors were identified as passive or active and included verbal and physical resistance to care giving encounters (e.g., clenched mouth, turning away, screaming/yelling, hitting/kicking/spitting, saying “no”, grabbing person).

Data Preparation and Analysis

After data collection, IBM's Statistical Package for the Social Sciences (SPSS) software version 20 was used to elaborate descriptive statistics to evaluate the observations of oral care provided by the ANS. Participants were stratified for dental status (i.e., presence of natural teeth, regular partial/complete denture wearers, or edentulous). These dimensions were important to the analysis because oral care needs vary by dental status. Resident resistance to oral care (i.e., push, hit or turn away, clench, scream, say no) (see Figure 4) was important as this influences the frequency and duration of care (Coleman & Watson, 2006). Resistive behaviors can cause distress and disable residents and caregivers thus interfering with the provision of necessary care (Cipher, 2007). Resistive behavior is consistent with the dimensions of 'resistiveness to care' as defined by Mahoney (1999) (Appendix 3).

Figure 4 Resistiveness to care model



These behaviors included verbal and physical resistance to caregiving encounters, as detailed above. The method used by ANS to deliver care to residents with resistive behavior during oral care was also recorded.

Analysis of Objectives

The following analytic techniques were used to respond to the objectives of the study. The occurrence (Yes/No) and duration (seconds) of oral care and its various components (brushing/swabbing/mouth-rinsing) were described by using descriptive statistics such as frequency, mean, median, range, standard deviation (Objective 1). The amount of time spent (seconds/minutes) on total body care (grooming/toileting/changing of clothes) was described using descriptive statistics (Objective 2). The supplies used (toothpaste/toothbrush/toothette/mouth-rinse/floss/denture cleaning tablets) to deliver care were described using descriptive statistics (Objective 3). The location (bedside/wheelchair/bathroom/other) and position (lying down/sitting/standing) of the resident were described using descriptive statistics (Objective 4).

CHAPTER 4: RESULTS

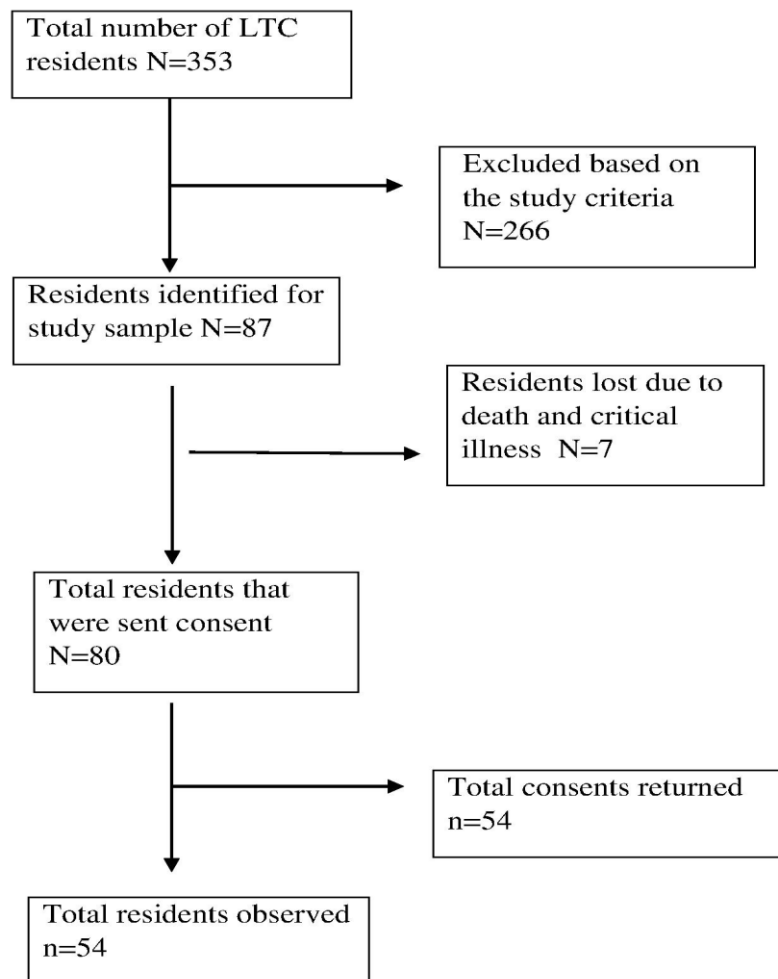
Following are combined results for both LTC facilities, Sites A and B

Resident's Sample:

A total of 353 residents at the two sites were screened, out of which 266 did not meet the study inclusion criteria (i.e., majority were independent in oral care while the rest were critically ill or close to death) (see Figure 5).

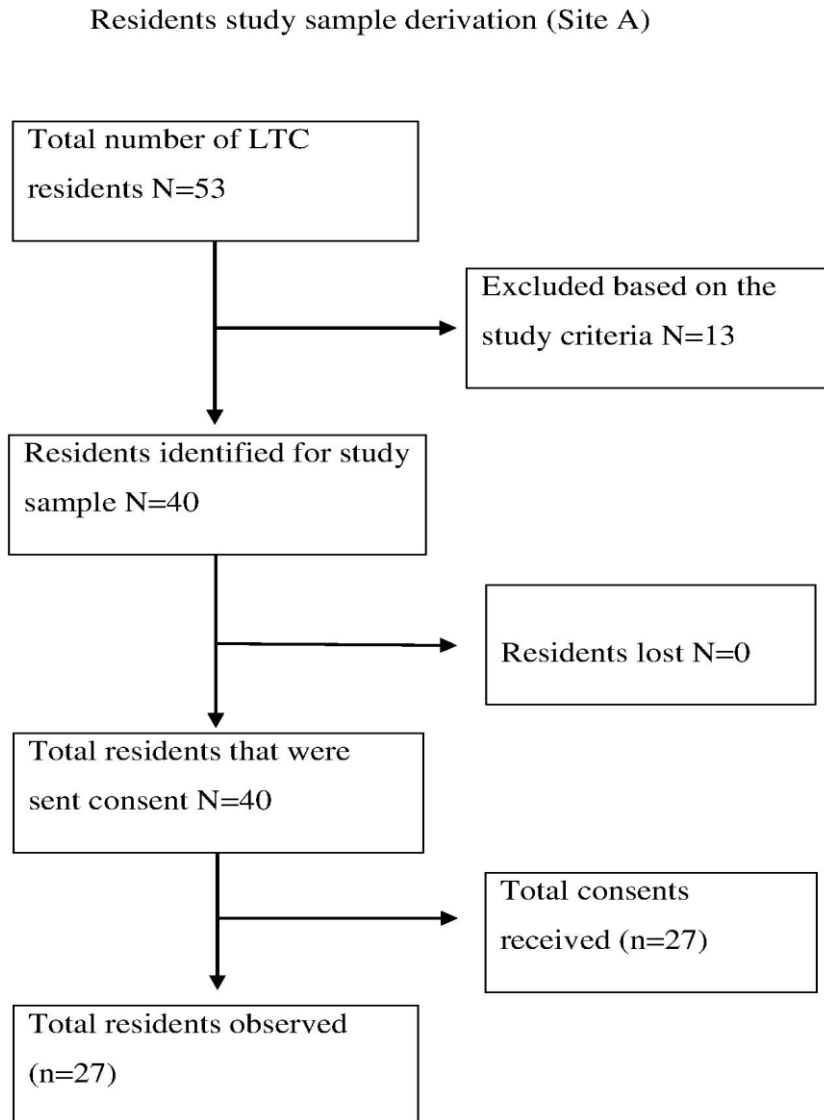
Figure 5 Flow chart showing study sample derivation.

Flow chart showing study sample derivation.



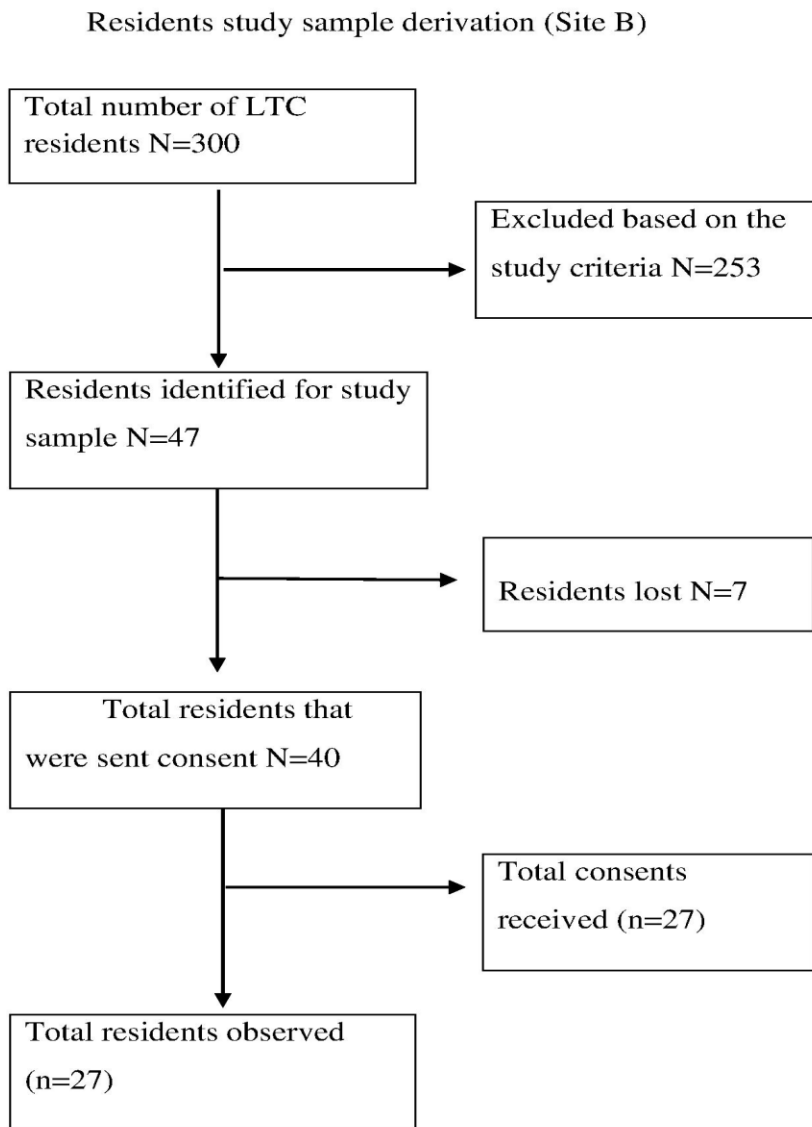
From Site A, a total of 53 residents were screened out of which 13 did not meet the inclusion criteria of the study. Consent forms were thus mailed to 40 residents; 27 consent forms were returned (67.5%). All 27 residents were then successfully observed (see Figure 6).

Figure 6 Residents study sample derivation (Site A)



From Site B, a total of 300 residents were screened out of which 253 did not meet the inclusion criteria. Of the remaining 47, 7 died prior to recruitment. Forty residents were then sent consent forms, of which 27 consents were returned (67.5%). All 27 residents were then successfully observed (see Figure 7).

Figure 7 Residents study sample derivation (Site B)



Thus, in total 87 residents were initially identified to participate in the study, of which 54 consented (62.0%) and all 54 residents were included and successfully observed.

ANS Sample: The head of the nursing units of each LTC facility performed initial screening for ANS. A list of consented staff providing care to the enrolled participants was provided by the Head nurse to the observing MSc student. In total, 17 ANS (all were Nursing Assistants) consented to being observed for the provision of morning care.

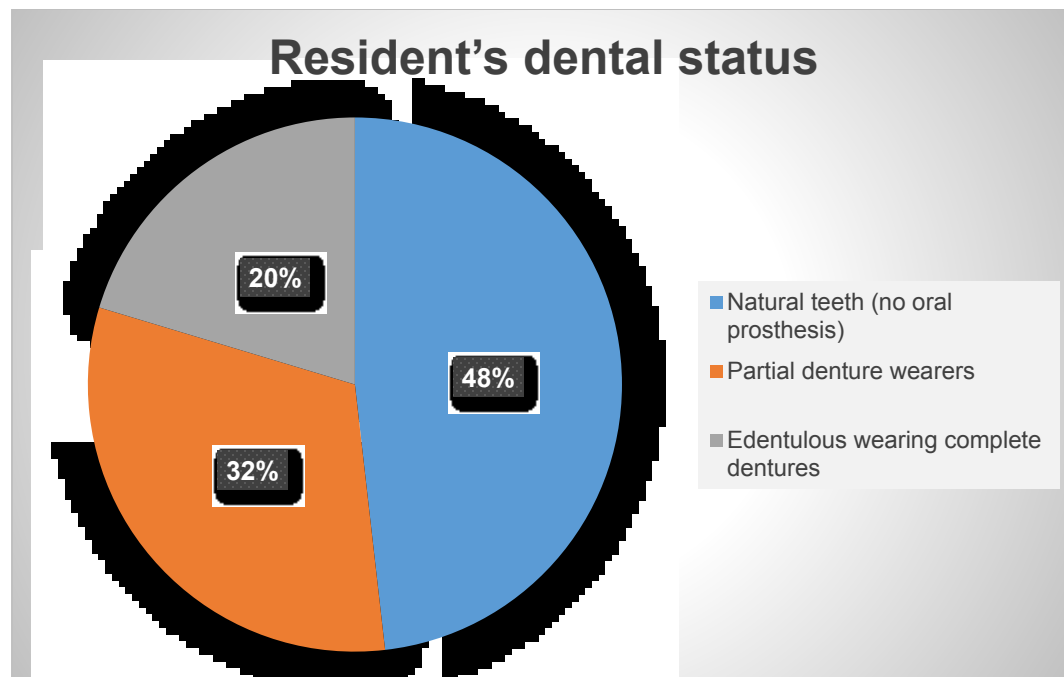
Inter-rater reliability: Inter-rater reliability scores were matched between the two researchers involved in this project for the first 10 residents. For provision or absence of oral care and all factors associated with its provision or lack thereof, the inter-rater reliability was 100%. Timing was recorded for oral care in seconds and the test scored 97%. Resident's resistive behavior towards oral care was observed and test scored 100% agreement. All the residents were observed from beginning to the end of morning care.

Dental Status: Out of the 54 residents observed, 26 (48.1%) had natural teeth and did not wear any oral prosthesis, while 17 (31.4%) wore partial dentures and 11 residents (20.3%) were edentulous, wearing complete dentures (see Table 1, and Figure 8).

Table 1. Resident's dental status

Dental Status	%	n/N
Natural teeth (no oral prosthesis)	48.1%	26/54
Partial denture wearers	31.4%	17/54
Edentulous (wearing complete dentures)	20.3%	11/54

Figure 8. Resident's dental status



Occurrence and duration of oral care (Objective 1):

The 54 residents were observed for oral care provision at two different locations, either at the bedside (23 residents) or in the bathroom (5 residents). The average time spent on oral care during the morning care was 24.9 ± 30.6 seconds (range 0 – 98.0 seconds). The care was provided for 28/54 (51.8%) of the residents and for the remaining 26/54 (48.1%) residents, no oral care was given nor were they verbally reminded to care for themselves. Out of the 28/54 residents who received oral care, 17/54 (31.4%) had their teeth brushed. Manual toothbrushes with toothpaste were used for all these residents. None had their teeth brushed for two minutes, which has been recommended by the CDA (CDA, 2006). None of the 11 edentulous residents had their oral cavity brushed; the only care they received was swabbing or rinsing with water or mouth wash. For the most part, ANS would take dentures out of their overnight hygiene storage

boxes and place them in the resident's mouth without cleaning the oral cavity or the dentures. 9/54 (16.6%) of the edentulous residents had their teeth or oral cavity swabbed with a toothette. 13/54 (24.0%) residents had their mouths rinsed with a mouthwash. Mouthwash was not always available. 26/54 (48.1%) residents who did not have their teeth brushed were never offered mouthwash as an alternative. 13/54 (24.0%) of the residents were offered a water cup to use to rinse their mouths. Standard practice dictates placing a protective towel on the resident's chest during oral care; however, only 11/54 (20.3%) residents had a protective towel placed on their chests. For the 28/54 (51.8%) who received oral care, oral care was the first part of the morning care for 7 residents. Standard practice dictates that for each resident, the ANS should wash hands and put on new gloves. Of 7 residents mentioned previously, only in 5 cases the ANS washed their hands prior to putting on new gloves. In the other 2 cases, the ANS donned new gloves without washing hands. For the remaining 21 residents, the oral care was performed either immediately after the ANS had washed the resident's body (e.g., face, perineum area) and changed incontinence products (diapers), or after the ANS dressed the resident. Standard practice dictates that for each resident, a new pair of gloves should be worn, after washing hands when oral care needs to be given. Gloves worn and used for the parts of the body should not be used for the oral cavity. In 17/54 cases (31.4%), ANS removed the dirty gloves after cleaning other parts of body and put on clean gloves however without washing their hands; For the remaining 4 cases oral care was performed after sponging and dressing the resident, this includes washing the body with sponge and changing diapers (if worn). For these ANS neither changed gloves nor washed hands.

In six different scenarios, oral care supplies (e.g., toothbrushes, toothpaste and dentures) were placed by the ANS on the table next to containers used to collect dirty water and towels. Towels

were squeezed/rinsed and dirty water thus could possibly have contaminated the area and products around the water bowl.

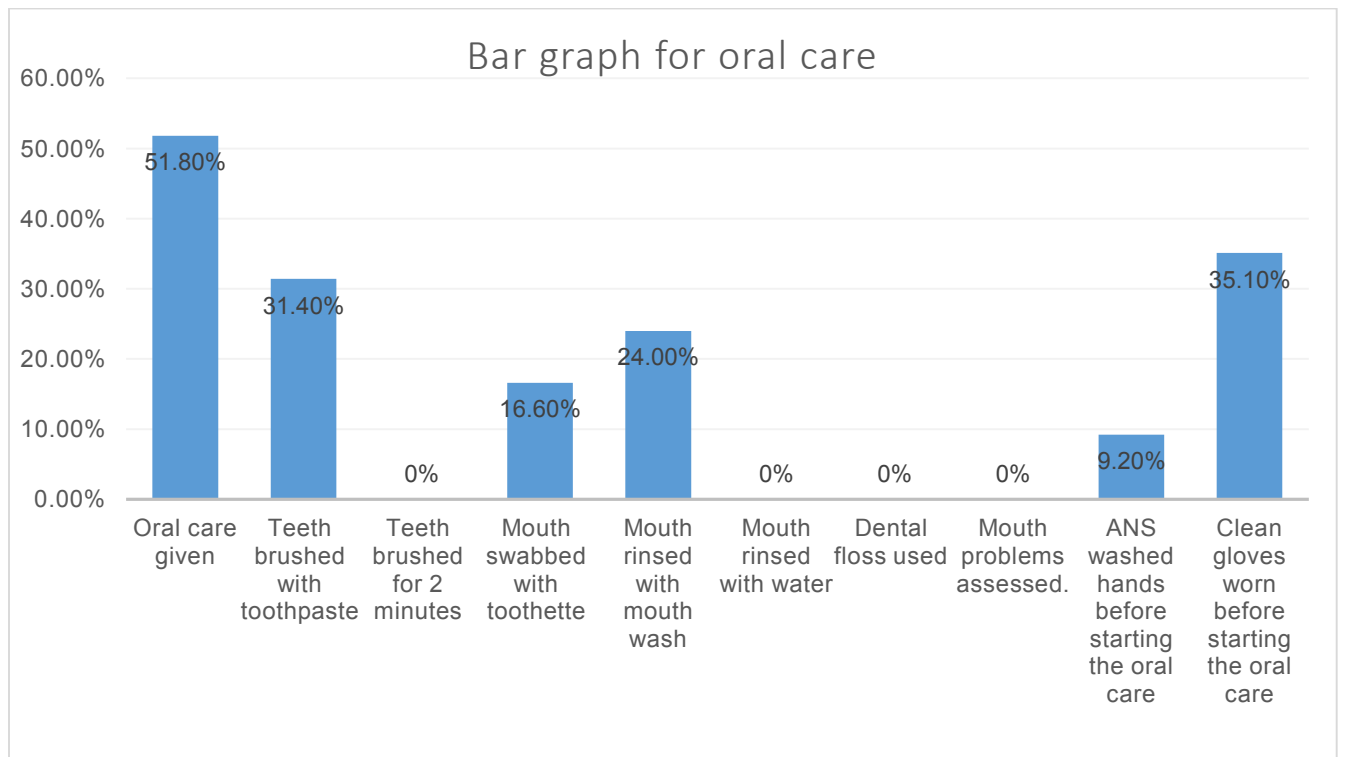
Flossing was not offered to any resident by the ANS, nor was any resident asked if they had any mouth problems/concerns. No ANS visually inspect the mouth. Further, care provided by the ANS was not recorded and, as a result there was no documentation of any procedure for oral care (see Table 2, and Figure 9).

Table 2. Oral care provided by ANS during morning care. Residents (N=54)

Oral care provided	%	n/N
Oral care given	51.8%	28/54
Teeth brushed with toothbrush and toothpaste	31.4%	17/54
Teeth brushed for 2 minutes	0%	0/54
Mouth swabbed with an individually wrapped toothette	16.6%	9/54
Mouth rinsed with water	0%	0/54
Mouth rinsed with mouthwash	24.0%	13/54
Dental floss used	0%	0/54
Mouth assessed.	0%	0/54
ANS washed hands and wore new gloves before starting the oral care	9.2%	5/54

Clean gloves worn by ANS before starting the oral care without washing hands	35.1%	19/54
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Figure 9. Bar graph illustrating morning care observations

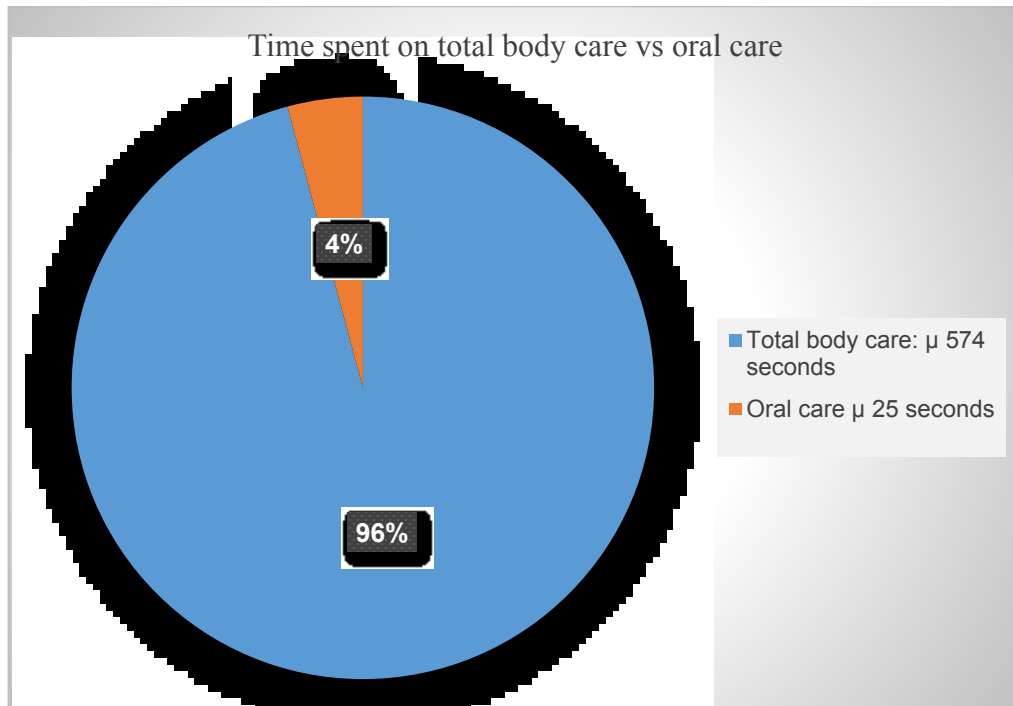


Time spent on other aspect of morning care (Objective 2)

The average time spent on total body care in both the LTC Facilities during the morning care was 688.3 ± 272.0 seconds (range 1,151.0 seconds) or 11.47 ± 4.53 minutes (range 19.1 minutes). The care was provided for all 54 residents observed. Out of the total time for morning

care 96% of the time was spent on total body care excluding oral care while 4% of the time was spent for oral care provision (see figure 10).

Figure 10 Pie chart showing time spent on total body care vs time spent on oral care



Type of oral care and supplies (Objective 3)

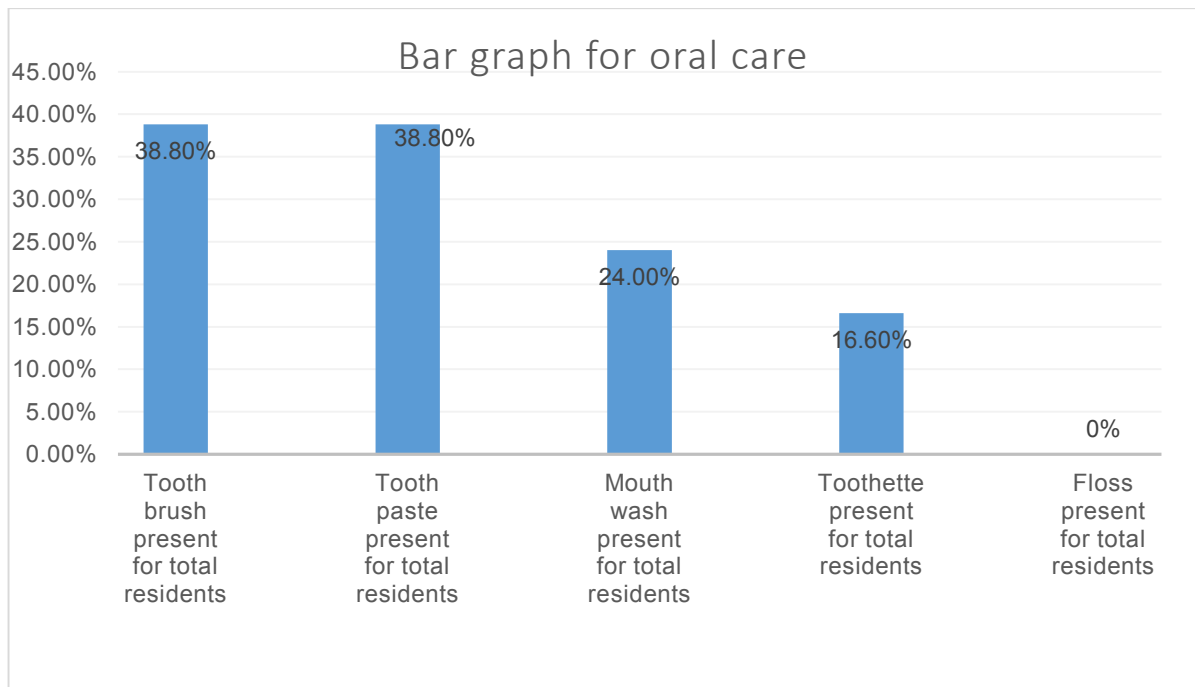
The presence and absence of supplies for oral care (e.g., toothbrush, toothpaste) was noted either in the resident's bedside table, the cabinet next to bed, in the bathroom, shower area, or contents of the washbasin the ANS used for care (Table 3). 21/54 (38.8%) of residents had a toothbrush and toothpaste visibly present. Mouthwash was present for 13 (24.0%) residents; it was never provided by the ANS when it was not present. No floss was present. New wrapped toothettes were present and used with 9/54 (16.6%) of residents. For 30/54 (55.5%) of residents,

basic supplies were absent (i.e., no toothpaste, toothbrush, mouthwash, or toothette) and not provided by the ANS (see table 3, and Figure 11).

Table 3. Oral care supplies that were visibly present during the care.

Supplies visibly present	%	n/N
Tooth brush	38.8%	21/54
Toothpaste	38.8%	21/54
Mouth wash	24.0%	13/54
Toothette	16.6%	9/54
Floss	0%	0/54
No supplies	55.5%	30/54

Figure 11. Bar graph showing oral care supplies



Location (bedside or washroom) and approaches to oral care (Objective 4)

All the residents (n=54) were first comfortably positioned before the morning care began. The oral care was provided and observed at two different locations, either at the bedside or in the bathroom (see table 4, and Figure 12). Most residents were unable to walk and only 9 residents (16.6%) were able to get out of bed with assistance. For morning care, 9 (16.6%) residents were provided total body care in the bathroom and 45 (83.3%) were given care at the bedside. Out of the total 28 residents that were given oral care, 23 (82.1%) residents were provided care at the bedside and 5 (17.8%) residents were washed and given oral care in the bathroom. Care for residents was provided in four different positions (Table 4): standing, lying down in bed, sitting on the bed and sitting in the wheelchair. 9/54 (16.6%) residents were standing during the care. 11 (20.3%) were lying in the bed, while 15 (27.7%) were sitting in bed and 19 (35.1%) were sitting in wheelchairs. One additional staff (ANS) was used in 5 different situations (9.2%) to assist the original NA.

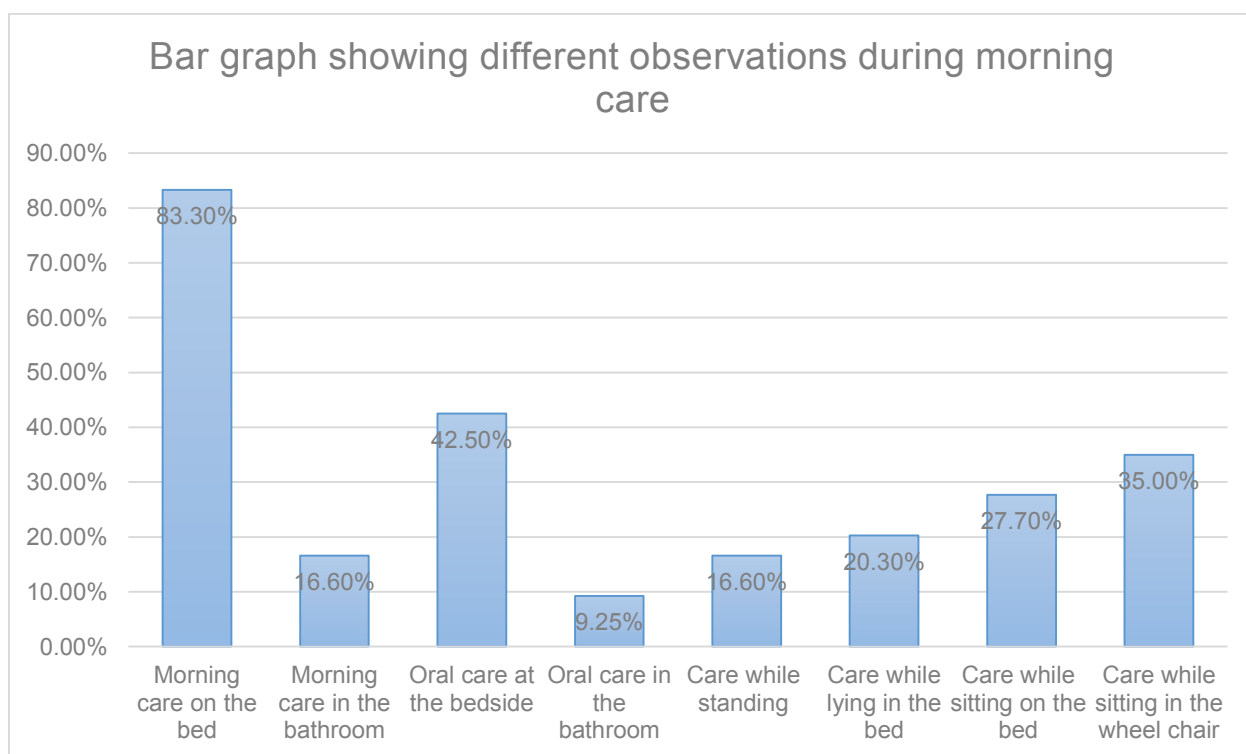
Overall, in 9 (16.6%) cases environmental factors influenced and interrupted the oral care. Out of these 9 cases, in two cases oral care was not provided due to environmental influences (e.g., noisy room, other people present or interfering during care provision, interruptions due to any reason such as pain, incontinence, residents' resistive behavior) and in the remaining seven cases oral care was interrupted by the above mentioned examples and rushed.

Table 4. Oral care location (bedside or washroom)

Location of care	%	n/N
Morning care on the bed	16.6%	9/54
Morning care in bathroom	83.3%	45/54

Oral care at the bedside	42.5%	23/54
Oral care in the bathroom	9.25%	5/54
Oral care while standing	16.6%	9/54
Oral care while lying in the bed	20.3%	11/54
Oral care while sitting on the bed	27.7%	15/54
Oral care while sitting in the wheelchair	35.1%	19/54

Figure 12. Bar graph showing different oral care locations



Resident behaviors during oral care

None of the 28/54 residents who received oral care showed resistance to the oral care. For the residents who did not receive any oral care, two residents were resistive and oral care was not

provided for them and the ANS did not use any strategies or methods to overcome the resistive behaviors.

Table 5. Resident behavior during oral care

No resistive behavior, oral care provided	28/54	51.8%
Oral care not provided due to Resistive behavior	2/26	7.69%

CHAPTER 5: DISCUSSION

The research conducted for this thesis is one of few observational studies looking at the actual oral care provided to residents of LTC facilities in Quebec, Canada. Our findings concur with the literature, namely that for oral care in LTC facilities in Quebec are not consistent with recommended practices for dependent seniors (Zens-Holtgrewe, 2011; Coleman & Watson 2006; Wårdh et al., 2000). When compared to best practices (Primary Care Oral Health of Older Adults Resource Kit, 2008), it is clearly inconsistent with recommended practices for dependent seniors.

This caregiving model in LTCs is dependent on the frontline care providers, the ANS. In the literature, ANS have been criticized for not delivering proper oral care (Coleman 2005). The delivery of care becomes more complex when the residents of the care facility are functionally and cognitively impaired; they become totally dependent on the ANS for all of their daily care. This means ANS need adequate training and skills in giving multiple kinds of care, including oral care.

In this study it was observed that nearly half of the total sample 26/54 (48.1%) residents' dependent on ANS for basic daily care received no oral care at all. The exact reason was not determined why the residents did not receive oral care during morning care. ANS were not asked regarding this issue, as oral care observation component was covert in this study. It was assumed either ANS just skipped this task or forgot to do oral care. Of the 28 (55.5%) residents who did receive oral care none received care at the standard defined by the Canadian Dental Association (CDA, 2006). Tooth brushing is believed to be the gold standard of providing good oral care (Stein & Henry, 2009) and a minimum of two minutes of brushing is suggested (CDA, 2006). Yet, the average time spent on tooth brushing was only 24.9 seconds.

Toothettes and oral swabs have been reported to be ineffective, as they do not efficiently remove all the plaque (Pace & McCullough, 2010). However, toothettes, though insufficient for cleaning plaque, are suggested for edentulous residents or in cases when using a toothbrush could be hazardous for a resident (e.g., risk of aspiration). In our study, 9 (16.6%) of the edentulous residents oral cavities were swabbed by the ANS using toothettes. Tooth brush was not present neither brushing was done nor offered to any of these residents illustrating that simple, basic hygiene measures were not properly followed. Simple swabbing for edentulous residents is not sufficient and they require tooth brushing of the edentulous ridges as well (Coleman and Watson, 2006). Further, none of the 11(20.3%) edentulous residents had their oral cavity brushed. The only care they received was swabbing or rinsing with water or mouth wash. According to oral care protocols, swabbing is not the best way to clean the oral cavity (Kennedy et al., 2003). A soft brush is now recommended to clean plaque, even for the edentulous patients. This is important because plaque accumulation forms a pool of germs (bacteria) that can lead to aspiration pneumonia, which is the leading cause of death in nursing homes and care facilities (Sjögren et al., 2008).

Dental health status also has a role to play during oral care. It was observed that residents who had natural teeth were more likely to receive better oral care compared to residents with complete dentures. For the most part, ANS would take dentures out of their overnight hygiene storage boxes and place them in the resident's mouth without cleaning the oral cavity or the dentures. Perhaps the ANS assumed that dentures placed in a cleaning liquid over-night are sufficiently clean and that the oral cavity does not require cleaning. ANS workers need education regarding dentures, which must be cleaned with denture brushes and denture products. Simply

rinsing them and placing them in a denture cup with a dissolving tablet is ineffective, as plaque forms on dentures just as it does on teeth.

Protective health is an integral part of infection control. There are many studies that emphasize the importance of hand hygiene in patient care (Grol & Grimshaw, 2003). Hand hygiene of ANS is for residents' safety from infection and cross contamination as it greatly reduces the chances of infection. According to the infection control guidelines issued by WHO (2009), hand hygiene (e.g., hand washing, hand antisepsis) should be performed before starting oral care. This includes washing of hand with antibacterial liquids and donning new gloves for every resident (Pittet, Allegranzi, Boyce, 2009). Only in 5 cases ANS washed their hands prior to giving oral care and in 19 cases ANS changed their gloves (i.e., removed used gloves and donned new gloves) before starting oral care. This approach for oral care reflected neglect in following guidelines that are important to maintain infection control. This study showed that residents are put at needless risk of cross contamination and infection.

Another risk for residents exists if the supplies for oral care are not sterile. According to the guidelines of Center for Disease Control (CDC) and Health Canada, all supplies and instruments used on patients should be sterile (Collins et al., 2003). Oral supplies must also be separated from other cleaning supplies to avoid cross contamination from other products. Bowls and towels used for body lavage collect dirty water that should be kept away from oral care products so that they may remain sterile (Smith et al., 2008). Results from this study show that care supplies, including oral care supplies like toothbrushes, were placed on the table next to bowls or containers used to collect dirty water and towels after lavage of the perineum area. For each resident multiple towels were squeezed and rinsed and dirty water contaminated the area and products around the water bowl, including the toothbrush. After being contaminated,

toothpaste was applied to the toothbrush and used in cleaning the oral cavity. This approach for oral care showed lack in competencies in following infection control guidelines.

The LTC Resource Kit mentioned earlier suggests to chart the procedures used to give all care including oral care (Horst & Scott, 2008). Sheets with printed procedure should be provided and marked for each resident so that ANS do not skip nor forget to follow any part of care. It is recommended to document oral care assessment and care provision to compare the oral health and if needed to modify the care procedure (Darby & Walsh, 2014). Another advantage of these charts is to record progress on following up on the care. Charts and flow sheets will help ANS follow procedures for oral care, which will benefit the residents. Our study did not find any document about the oral care provided on any paper and this could be one of the reasons that ANS did not deliver oral care for 26 residents.

Availability of oral care supplies is another significant issue. Lack of supplies has a direct effect on provision of oral care. Care products must be available in the cupboards or allocated spaces (drawers or cabinets), accessible to the ANS. When the ANS enters the room for caregiving, oral care supplies should be near all other caregiving products for ease and efficiency. The understanding among the facilities and residents or family/guardians must be clear regarding the responsibility for providing supplies. While some facilities do provide basic care supplies, other organizations require the family/guardian of the resident to bring in supplies. The literature suggests that care providers working with residents of low socio-economic standing tend to place less importance on oral care (Sanders, Spencer & Slade, 2006); for this reason, facilities' policies on oral care should account for this and provide at least basic supplies, like soft toothbrushes, toothettes, toothpaste and mouthwash, for all residents at all times.

Toothbrushes should be replaced every 3 months and instructions provided on how to clean dentures with brushes and to immerse them overnight using denture cleaning tablets/liquids.

It was observed that in 7 different instances toothbrush and toothpaste was missing or not visibly present and in 15 scenarios mouthwash was not present. ANS could not find the basic oral care supplies resulting in a lack of provision of oral care for the resident, as the ANS did not seek supplies to finish the task. Therefore, it is important that residents' supplies be accessible and kept next to the residents' other products so that the time constraints placed on ANS can be met. Not having to search for the products will remove a burden from the ANS, and thereby may ensure this task will not be deferred or neglected.

Implementation of policies can sometime be problematic and present a major challenge. Low levels of staffing lack of time and support, resident behaviors, and fear of providing care are among other issues that need to be addressed, as cited in previous reports. Lack of staff is a staggering problem mentioned in the literature (Lapane & Hughes, 2007). Shortage of staff is a stressful situation for ANS as this burdens the worker with work over load. In this study, this could be a possibility. One possible explanation for the lack of oral care provision can be that the ANS providing care for the residents were few in number as compared to the total number of residents. In such a situation, the working ANS has to provide care to more residents within due time of their shifts. Care provided in this fashion is in a hurried manner, which results in superficial care as compared to quality care. The ratio of staff versus resident was beyond the scope of this study and was not measured. Due to lack of time, some components of care that ANS might feel are not important may be skipped. Many residents were not given any oral care and this may be one of the reasons for the neglected care.

During our observation it was anecdotally noted that ANS seemed concerned about too much work in too little time. The time allotted for resident care is very important for residents, as this care makes them feel valued and they need to connect with others (Lantz, Buchalter & McBee, 1997). The regular ANS is ideal for this as personal bonding for each resident and therefore less resistive behavior is seen (Wilson, Davies & Nolan, 2009). This is important as research on quality of life in the frail and elderly has demonstrated a relationship between high levels of behavioral dysfunction, affective symptoms, and subjective reports of poor quality of life (Benedict et al., 2005).

Agitated or disruptive behaviors among elderly nursing home residents can be associated with loss of social contacts, requests for attention, help-seeking behavior, and self-stimulation (Voyer et al., 2005). Research has demonstrated that coping and bonding promotion led to a reduction in depression, anxiety, and confused behaviors and allows less resistance when providing care among LTC residents (Nauert, 2010). Most of the observed ANS seemed to perform their tasks in a hurried manner, which may have been to help them finish the work within their assigned shifts. This may lead to confusion, anxiety and resistive behavior and therefore may cause difficulty in completing care.

Fear of providing care is another barrier that is felt by some ANS. It is reported in the literature that ANS are not trained to perform oral care especially for resilient residents (Wårdh, 2000). In a study conducted by Wardh and colleagues (2000) mentioned that ANS lack in providing proper oral care because ANS find it difficult to approach the oral cavity. Similarly Frenklen (1999) showed in his study that the NAs are scared that they might hurt the resident when performing oral care. Residents can be difficult to handle and at time hurtful or abusive. To avoid any complication in this regard unskilled ANS tend to avoid approaching oral cavity for

oral care since they lack expertise and fear they might hurt the resident or create any complication. Another barrier reported in the literature is the lack of positive attitudes on the part of ANS to deliver quality oral care.

Resident abilities and behaviors accounts for what type of care is provided. If the resident is cognitively aware and is aware of the need for hygiene, that resident will more likely seek care. It is suggested in the literature that resistive behavior is an obstacle requiring professional expertise (Wardh et al., 2000; Ron, & Lowenstein, 2002), however in this study only two residents showed resistive behavior when the care was given. In fact it was often noted that, when ANS informed the resident about a particular task to be performed (e.g., “now I will wash your face,” or “now I will wash your lower body”) the residents responded positively. This indicates that the majority of residents in our study appreciated or at least complied with the care being provided. On numerous occasions it was noted that ANS would display different clothes (shirts and pants) to more coherent residents and they would take time choosing what they wanted to wear that day.

The position and location of caregiving was dependent on the resident’s physical ability to move and walk. The main ANS concern seemed to be to comfortably position the resident before care began. We observed that putting the resident in a comfortable position before starting the care seemed to make it easier for the ANS to manage and the resident felt more relaxed and confident during care. This motivates the resident to accept care, making the ANS task easier. Most residents were unable to walk and only a few residents 9/54 were able to get out of bed with assistance. Those who were able to walk to the bathroom were encouraged to do so.

Generally ANS would ask the residents to do as much as they could, encouraging the residents to be self-reliant. For these residents, the ANS would assist by gathering and preparing

the supplies after which the ANS would allow the resident to care for himself (i.e., the ANS would wet the facecloth and hand it to the resident, asking them to wash their own face). If the resident was unwilling or incapable for some reason, the ANS would encourage the resident to do it using complimentary and reassuring phrases to motivate the resident. One nursing staff told us this “helps with their mobility.” This type of behavior management could also be beneficial if applied to oral care; unfortunately, we did not observe this in any scenarios.

Another important factor noted during the observations was timing of care. Morning care is not always given when the resident wakes up. Care can be before or after breakfast, and sometimes it is interrupted and delivered in two parts due to breakfast. When this happens, some part of the care is given before breakfast (for example face washing and/or mouth cleaning) and the rest of the cleaning happens after breakfast. It was observed that in these instances, if oral care did not precede the breakfast, it also was not performed in the second part of care. There was no documentation recording ANS activities; perhaps a checklist could help the ANS remember that oral care was not already conducted and thus ensure all care is delivered.

Based on the low level of oral care administered by the ANS, it could be that they did not understand the importance of oral care, a trend that has been elucidated in previous studies (Dhaemsi et al., 2009; Forsell et al., 2010). This could be due to their lack of proper training and expertise. Further study would be required to test this hypothesis.

The Role of Institutions in Promoting Oral Health

The role of the institution is essential in promoting, executing and maintaining residents’ oral health. These organizations must adapt their guideline and policies regarding oral healthcare. Adapted policies need to be implemented into the daily caregiving agenda of each facility focusing on the importance of oral care. Resources must be made available in order to sustain oral care

programs. This should include adequate staffing. Lack of staff results in overburdened care workers who cannot manage the situation well due to time constraints. Oral care products/ supplies must be made available in addition to training for the ANS in the appropriate delivery of oral care, including methods for basic assessment of oral disease. Lack of proper training and skills have been previously identified as an obstacle to oral care (Wardh et al., 2000). Education and training programs for the ANS have been developed and implemented in the past to address these deficits (Frenkel et al., 2000, 2001; MacEntee et al., 2007; Peltola, Vehkalahti & Simoila, 2007), but even though promising long term outcomes were achieved, changes in nursing practices were short-lived (Chung et al., 2000; Wardh et al., 1997; Wardh et al., 2000).

Caregivers commonly believe old age and loss of natural teeth are naturally associated [ref]. This belief leads to the mistaken notion that oral care is insignificant, and therefore it has been given a low priority in health and nursing care (McConnell et al., 2007). Organizations need to create an environment that gives priority to oral health. As seen in our literature review, the lack of oral care in LTC facilities is also attributed to the insufficient education and training of the ANS. ANS should be educated on the importance of oral care for residents. The concept of oral health as a component of general health needs to be recognized in education programs for ANS and must be incorporated into the training process. Chalmers and colleagues (1996) studied the attitudes of ANS about caregiving practices in LTC and nursing homes. They reported that ANS who do not appreciate oral care spend less time providing it for residents. Another study evaluated the perceptions and attitudes of the ANS towards oral care and concluded that there is a gap between cognitive knowledge and attitude towards oral care (Forsell et al., 2010).

Taking all of the preceding information into account, it becomes apparent that oral care in LTC facilities is far from adequate. While our findings concur with the literature, our study did

not delve into the reasons for this lack of adequate care. As elucidated in literature, lack of positive attitudes of the caregivers and the care facilities is an attribute that needs more detailed understanding and further research. The inclusion of personal oral hygiene values and experiences into the educational program of caregivers will improve the quality of care in LTC facilities. By reinforcing the value ANS place on their own oral health and their resulting self-perception may help improve the mindset and the care given to patients. Helping these workers understand the connection between oral health and general health may lead to an overall improvement and quality of life for LTC residents.

Limitations

As with any study, there are some limitations with this study. First, it was conducted at only two LTC facilities. The practice of oral care may vary among institutions; however the literature also suggests that oral care is inadequate in LTC generally; thus our findings do confirm this broader literature.

Second, it is possible that our data is biased towards under-representing breaches in care. To begin, the ANS in the study were the regular care providers for the residents and thus most familiar with these residents' needs. Next, they were aware of being observed for morning care generally (although not for oral care), which may have caused them to improve their behavior and performance (e.g., the Hawthorne or Observer Effect) (McCarney et al., 2007).

Third, the study only observed morning care. Oral care may also be given at the end of the day; this was not recorded. This may have implications on results and may reflect an underestimation of the actual care given. However, even if oral care was provided at the end of the day, the standard for oral care (i.e., twice a day; based upon the Canadian Dental Association recommendations) is not likely to have been met. Further, observing all morning care in one

session was not always possible. At times residents may have risen early, taken their regular medicines or eaten a snack before morning care was given. In such instances, it was difficult to estimate whether or not mouth care was given at the time the resident woke up, as there is no documentation in patient charts about what part of care was given and what was not.

Finally, the residents who did not meet the inclusion criteria of the study were those rated independent in oral care by the Director of Nursing or Head Nurses (those not blinded to the focus of the study). It is possible that these residents may have required some form of help in their oral care practices, but this was not observed. Despite this fact, we have no reason to think that the excluded residents would have received a different standard of care from those observed in the study.

Conclusion

This study contributes to the literature that shows that inadequate and poor oral care is common amongst vulnerable LTC populations. Despite the knowledge that oral health is associated with other health complications, good oral health is not adequately supported in these facilities. An urgent change is needed; oral care must become a priority. Unfortunately, this is a complex and challenging task. The staff and the institutions need to fully understand and value oral hygiene as a factor in general health and this should be reflected in policy and procedure. This multifaceted problem requires a multi-interventional strategy. All stakeholders need to give their input and be part of this campaign. The importance of oral care needs to be addressed at all levels. The government and other agencies responsible for caregiving facilities must be provided with clear guidelines addressing the need for improving current oral care practices. This responsibility should come down with checks and balances so that the government can ensure cooperation in completing tasks and facilities themselves need to devise such actions. The

administration responsible for these facilities must take oral care issues seriously. The facilities' administration, senior management, oral health professionals and other senior nursing staff should work inter-professionally to formulate a strategy that is suitable and workable for frontline ANS to implement, with improving standards as a main goal. This should be regularly monitored and reported.

There are numerous barriers that hinder the provision of good oral care. We know ANS do not provide oral care at the standard recommended by the Canadian Dental Association. This is due to the many barriers identified and supported by the literature, such as inadequate training (Petersen, 2003). Healthcare worker training must include education on issues related to oral health, otherwise workers are not likely to prioritize it relative to other care activities. Studies have reported the benefits of conducting workshops and continuing education programs for the ANS (Frenkel, Harvey, & Needs, 2002). These are designed to create awareness, improve knowledge and skills for the provision of care. However, long term effectiveness of such initiatives have not shown promising results (Ross, & Crumpler, 2007). The literature does not explain why these initiatives only achieve short-term success. This again will require a multi-level intervention with the intention to prioritize oral care and improve its standards. This would require all stakeholder to play important roles, including assessment, advocacy, and educational activities with regular checks and balances.

The findings of this study confirm poor oral care given to the LTC residents and literature links this with worsening oral health conditions highlighting the impact of poor oral health on quality of life. Improving the knowledge of LTC staff, and providing them with practical skills in oral hygiene provision, particularly for functionally impaired residents, may help improve the oral health of these residents. Furthermore, collaboration and organizational support are

important for raising the priority given to oral care in these institutions. This study highlights the need for further investigation and assessment of ANS training courses and continuing oral health educational interventions in nursing facilities.

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APPENDICES

Appendix 1

Oral care policy and standards

Oral Care

Policy

This is a SAMPLE LTC Oral Care policy and it can be used as a template.

LTC Home	<i>SAMPLE ONLY- feel free to adapt to your LTC home</i>
Nursing	
Subject	Oral Care

POLICY:

1. An oral health history will be completed as part of the resident admission assessment and will include oral hygiene beliefs, practices and current state of oral health.
2. Assessment of oral health will be included in all resident health assessments:
 - Within 24 hours of admission
 - At least quarterly and annually
 - As oral health status changes
3. Residents' oral health status will be assessed using the Oral Health Assessment Tool (OHAT) for Long-Term Care.
 - For LTC homes using MDS-RAI 2.0: complete Sections K and L , as necessary, complete the OHAT to supplement the RAI with additional oral status information.
4. An individualized Oral Hygiene Care Plan (plan of care) will be determined and implemented based on the completed oral assessment (OHAT), MDS Dental Care RAP, resident's preferences, functional ability, cognition and ability to cooperate and follow instructions.
5. Staff will provide, remind or cue oral care for residents at least twice daily. If possible, oral care should be completed in the resident's bathroom (i.e., due to the physical cues available).
6. Prior to initiating oral care, staff should review the oral hygiene care plan and be aware of the resident's cognitive status, their responsive behaviours, communication, sensory and functional impairments, and dysphagia.
7. Encourage residents to be independent with oral care. Staff will complete any oral care that the resident was not able to complete. Staff will provide or supervise the provision of oral care for those residents at risk of aspiration.
8. Communicate with the resident at all times during oral care ensuring that the resident is aware of the steps of the procedure and independent tasks required.
9. The "Approaches to Oral Care" tool can be used as a resource for staff in completing resident's oral care. Recommended interventions:

- Never use toothpaste or mouth rinses with residents who have swallowing difficulties. Only use water.
- Never use lemon glycerine swabs with oral care.
- The resident should be properly positioned to receive oral care.
- For residents who are unable to keep their mouth open, use mouth propping devices (ie. two toothbrush technique, wedges, etc.)
- Use a toothbrush with a small head, soft bristles and a larger handle with a rubberized grip.
- Use pea size amounts of toothpaste.

10. Interventions for care of dentures:

- Never use denture tablets for soaking dentures of residents with dementia. The ingestion of tablets/solution is serious. Vinegar/water solution can be used as an alternate (mix ½ water and ½ vinegar).
- Remove dentures daily for at least three hours, for gums to rest.
- Clean dentures with denture paste, denture brush and soak in cool water.
- Brush the mouth tissues and tongue with soft bristle brush prior to applying the dentures. Dentures should be thoroughly rinsed

11. Denture cups and toothbrushes will be labelled and replaced every 3 months and as required. Replace toothbrushes after every oral infection.

12. The effectiveness of the oral care interventions will be evaluated at least quarterly. Additional or alternate interventions will be added as necessary.

13. At the time of admission and throughout their stay, residents will have access to oral health professionals including dentist, denturist and dental hygienist.

14. Based on the nursing assessment and in consultation with the resident and /or SDM, referrals to an oral health professional (dentist, denturist, dental hygienist) will be made.

EDUCATION:

1. Orientation: New staff, Registered Nursing staff and Personal Support Workers / Health care Aides (full and part-time) will receive oral hygiene care education and information during their orientation.
2. Continuing Education: Staff education sessions regarding oral care hygiene will be provided annually and additionally, as required.

QUALITY/ AUDITING MONITORING:

The LTCH Satisfaction Surveying process will include an annual evaluation of:

1. Residents' satisfaction with oral hygiene care received
2. Family / SDM's satisfaction with oral hygiene care provided.

Procedure

Denture Care

a) Introduction

- Plaque & tartar form on dentures just the same as they form on natural teeth
- **Brush dentures** (as you would natural teeth) at least **twice daily**
- **Remove dentures daily** for at least 3 hours for gums to rest, overnight is easiest
- Use a separate brush for any natural teeth
- Ask the resident to remove their dentures. Assist, if they can't
 - For upper dentures
 - slide your index finger along the denture's side then push gently against the back of the denture to break the seal. Grasp it and remove by rotating it. Grasp lower dentures at the front and rotate.
 - For partial dentures
 - place thumbnails over or under the clasps, apply pressure, being careful to not bend the clasps and catch them on lips or gums.

b) Cleaning dentures:

- Wear gloves
- Line the sink with a towel. Fill it with some cool water just in case the dentures slip and fall. Hot water can warp dentures.
- Rinse with cold water to remove food
- Scrub dentures using a denture brush and denture paste. Never use abrasive cleansers or scouring powders
 - Thoroughly brush all surfaces especially those that touch the gums. Rinse well.
- At bedtime, place dentures in denture cup with cool water and vinegar (½ water and ½ vinegar)
- Only soaking them overnight with a cleansing tablet is not sufficient – it doesn't clean off the plaque
 - NEVER use denture tablets for soaking dentures of residents with dementia - ingestion of tablets/solution is serious
 - Never use vinegar on dentures with any metal on them as this will cause the metal to turn black.

Toothpastes

- Use pea-sized amounts of toothpaste, squeezing out a long strip of toothpaste is too much
- Most toothpastes have a strong taste, many residents don't like this, not appealing to residents with Alzheimer's Disease
- Foaming action of toothpaste increases saliva flow & will result in the resident wanting to spit >> choke, gag
- DO NOT use toothpaste for residents who have dysphagia, who cannot swallow or spit/rinse properly, have high level of dementia - there are oral cleansing gels available

Toothbrushes

- The best type of toothbrush to use for residents
 - is one with a small head, soft bristles, larger handle with rubberized grip
 - 2-Toothbrush Technique:
 - For residents who bite down during care, consider using 2 toothbrushes – one to prop the mouth open and one for cleansing
- Replace toothbrush:
 - every 3 months or after an infection

Available for download on www.rgpc.ca >> Long-Term Care Best Practices Resource Centre

Oral Care Gap Analysis

Based on the RNAO Oral Health BPG Recommendations (2007).

Compare your LTC home's practices, policies and procedures to those in the RNAO's Oral Health Best Practice Guideline.

Gap Analysis - Oral Health: Nursing Assessment and Interventions

RNAO Oral Health BPG Practice Recommendations	Resources / Tools	Yes	No	N/A	Current Practice
1. Nurses should be aware of their personal oral hygiene beliefs and practices, as these may influence the care they provide to residents.					
2. As part of their admission assessment, nurses will obtain an oral health history that includes oral hygiene beliefs, practices and current state of oral health.	Oral Care Resource Kit Oral Health Assessment Tool for Nursing LTC RNAO BPG Appendix D: Oral Hygiene History – Sample Questions University of Iowa BPG Appendix A: Oral Health Assessment Tools				
3. Nurses use a standardized valid and reliable oral assessment tool to perform their initial and ongoing oral assessment.	RNAO BPG Appendix E: Oral Health Assessment Tools Oral Health Assessment Tool for Nursing LTC (adapted O-HAT) RAJ-MDS: including L, G1, J14, J2, K1-5, L1, P1a				
4. Oral health status information is regularly reviewed with all members of the health care team to monitor resident progress and facilitate the development of an individualized plan of care.	Oral Care Resource Kit Oral Hygiene Care Plan for LTC RNAO BPG Appendix F: Sample Care Plans University of Iowa BPG Appendix A.4: Oral Hygiene Care Plan RAJ-MDS: Dental Care R&P				

RNAO Oral Health BPG Practice Recommendations	Resources / Tools	Yes - No - N/A	Current Practice
5. Nurse provide, supervise, remind or cue oral care for residents at least twice daily, on a routine basis. This includes residents who: - Have diminished health status; - Have a decreased level of consciousness; and - Who have teeth (dentate) or do not have teeth (edentulous).	RNAO BPG Appendix I: Denture Care and Appendix J: Tooth Brushing Techniques Oral Care Resource Kit – Includes University of Manitoba Oral Care Information Sheets _____		
6. Nurse provide or supervise the provision of oral care for residents at risk for aspiration.	RNAO Oral Care DVD II: Xerostomia, Mucositis and Dysphagia _____		
7. Nurses provide ongoing education to the resident and/or family members regarding oral care.	University of Manitoba, Faculty of Dentistry Centre for Community Health – LTC Fact Sheets _____		
8. Nurse are knowledgeable of oral hygiene products and their applications as they pertain to their specific client populations.	RNAO BPG Appendix G: Oral Hygiene products Review Supplier's list for oral care supplies _____		
9. Nurses are aware of treatments and medications that impact on the oral health of residents.	Oral Care Resource Kit Medications that Impact Oral Care Reference Tool RNAO BPG Appendix H: Medication Chart University of Iowa BPG Appendix B – Medication Chart _____		

RNAO Oral Health BPG Practice Recommendations	Resources / Tools	Yes - No - N/A	Current Practice
10. Nurse use appropriate techniques when providing oral care to residents.	RNAO DVD I: Oral Care for Residents with Dementia RNAO DVD II: Oral Care: Xerostomia, Mucositis and Dysphagia Approaches to Oral Care Quick Reference Tool _____		
11. Nurse advocate for referral for those residents who require consultation with an oral health professional (eg. dental hygienist, denturist, dentist).	Referral Notes _____		
12. Nurse ensure that all oral health related history, assessment, and care is documented.	Oral Hygiene Care Plan Oral Health Assessment Tool for Nursing LTC RAHMDs: including E, G1, J1 k, J2, K1-6, L1, P1a _____		

Oral Hygiene Care Plan for Long-Term Care

ORAL HYGIENE CARE PLAN for LONG-TERM CARE					Resident:	
Level of Assistance Required ☐ Independent ☐ Some assistance ☐ Fully dependent					Date:	
Assessment of Natural Teeth & Tissues: <i>(please circle)</i>	Upper	Yes	No	Root tips present	Interventions for oral hygiene care: <i>(check all that apply and indicate frequency as needed)</i>	
	Lower	Yes	No	Root tips present		
	General			Indicate any other findings on chart below:		
					☐ Regular large handled toothbrush ☐ a.m. ☐ p.m. ☐ Use 2 toothbrush technique ☐ a.m. ☐ p.m. ☐ Suction toothbrush ☐ a.m. ☐ p.m. ☐ Regular fluoridated toothpaste ☐ a.m. ☐ p.m. ☐ Do not use toothpaste ☐ Interproximal brush/floss and floss ☐ a.m. ☐ p.m. ☐ Dry mouth products _____ ☐ Other: _____	
Assessment of Dentures: <i>(please circle)</i>	Upper	Full	Partial	Not worn	No denture	☐ Brush mouth tissues & tongue ☐ a.m. ☐ p.m. ☐ Scrub denture(s) with denture brush ☐ a.m. ☐ p.m. ☐ Soak denture(s) over night in 1 part water/1 part vinegar solution ☐ Scrub denture cup & lid weekly with detergent & water ☐ Dry mouth products as needed ☐ Identify denture(s) ☐ Other: _____
	Lower	Full	Partial	Not worn	No denture	
Regular Barriers to Oral Care or Dental Treatment <i>(check all that apply)</i>		☐ Forgets to do oral hygiene care ☐ Can't remember how to do oral care ☐ Refuses oral hygiene care ☐ Won't open mouth ☐ Oils toothbrush ☐ Can't or doesn't follow directions ☐ Can't swallow properly (dysphagia) ☐ Can't rinse or spit ☐ Swallows all toothpastes or liquids				
		☐ Responsive behaviours: ☐ Pushes away ☐ Hits ☐ Turns head away ☐ Bites ☐ Spits ☐ Swears ☐ Other: _____ ☐ Constantly grinding / chewing ☐ Won't take dentures out at night ☐ Difficulty getting dentures in or out				
		☐ Head faces downwards ☐ Head is constantly moving ☐ Dexterity or hand problems / arthritis ☐ Can do some oral care but not all ☐ Tired, sleepy or poor attention ☐ Requires financial assistance for dental treatment ☐ Other: _____				
					Completed by:	

2007 Halton Region's Health Department | Inactive and previous versions (2004)
 Available for download: www.halton.ca

Central Health | Best Practices coordinators in long-term care initiative
 Available for download: www.rgpc.ca

Available for download on www.rgpc.ca >> Long-Term Care Best Practices Resource Centre

Source: Best Practices LTC Initiative, www.rgpc.ca
 Best Practices Approach to Oral Care in LTC Resource Kit, March 2008.

Observational tool for measuring morning care provided to the residents

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ORAL CARE PRACTICE		
	<u>Start Time</u>	<u>End Time</u>
PREPARATION		
Assembles supplies for brushing & flossing 1- yes 2- no (at bedside or sink)		
Supplies gathered:		
1. toothbrush	1- yes	2- no
1a. toothbrush labeled	1- yes	2- no
1b. toothbrush type	1- conventional 2- electric 3- other (specify)	
1c. toothbrush location (specify)		
2. toothpaste	1- yes	2- no
3. toothpaste type	1- fluoride containing 2- non-fluoride	
4. toothette	1- yes	2- no
4a. toothette individually wrapped	1- yes	2- no
4b. toothette location (specify)		
5. floss	1- yes	2- no
6. mouthwash	1- yes	2- no
7. emesis basin	1- yes	2- no
8. water cup	1- yes	2- no
9. straw	1- yes	2- no
10. protective towel(s)	1- yes	2- no
11. other (specify, e.g., lip lubricant, saliva substitute)		

Position/re-position resident to upright, if applies

Gaining resident cooperation

IMPLEMENTATION

NATURAL TEETH

***Washes hands** 1- yes 2- no

(mark "yes" if aide finished previous task with hands washed)

Puts on clean gloves 1- yes 2- no

Places towel across resident' s chest/under chin 1- yes 2- no

Applies pea-sized amount of toothpaste to bristles 1- yes 2- no

***Brushes upper and lower surfaces of teeth** 1- yes 2- no

***Brushes tongue** 1- yes 2- no

***Assists resident to rinse with water** 1- yes 2- no

***Gently flosses between teeth**

Offers resident mouthwash 1- yes 2- no

Assist resident to wipe mouth 1- yes 2- no

Apply lip lubricant, if indicated/ordered 1- yes 2- no

***Rinse, dry and return articles to proper storage** 1- yes 2- no

Remove gloves 1- yes 2- no

*** items to be timed**

DENTURES

Cleans dentures:

***Assembles supplies**

***Washes hands**

(mark “yes” if aide finished previous task
with hands washed)

Puts on clean gloves

Protects denture(s) from possible breakage

(lines sink with towel; brushes over sink)

Applies toothpaste/denture cleanser to toothbrush

***Brushes all denture surfaces thoroughly**

Rinses denture(s) under running water

Cleans oral cavity:

***Gently cleanses tongue and gums with
Toothbrush/toothette dipped in mouthwash**

***Rinses gums & tongue with moistened
Brush/toothette**

Assist resident to wipe face, if necessary

***Assists/replaces cleaned dentures in resident’s mouth**

***Return supplies to proper storage**

Removes gloves

EDENTULOUS

***Assembles supplies**

***Assists resident to a position of safety & comfort**

***Wash hands**

(mark “yes” if aide finished previous task
with hands washed)

Puts on clean gloves

**Moistens toothette, gauze-padded tongue blade or brush
with mouthwash**

***Gently cleanses upper & lower gums**

***Gently cleanses tongue**

***Rinses gums & tongue with moistened toothette/brush/blade**

Assists resident to wipe face

Applies lip lubricant, if appropriate

FACTORS THAT INFLUENCE ORAL CARE

ENVIRONMENTAL

GENERAL

1. Noisy 1- yes 2- no

2. Quiet 1- yes 2- no

3. TV on 1- yes 2- no

4. Radio on (specify type of music)
1- yes 2- no

**5. Music (recorded)
(specify type of music)** 1- yes 2- no

6. Intercom 1- yes 2- no

7. # people in the room (specify)

5. Other (specify)

INTERRUPTIONS

1. incontinent of urine 1- yes 2- no

2. incontinent of feces	1- yes 2- no
3. complaint of pain	1- yes 2- no
4. complaint of discomfort	1- yes 2- no
5. complaint of fatigue	1- yes 2- no
6. need for toileting	1- yes 2- no
7. Medication administration	1- yes 2- no
8. nursing treatment	1 – yes 2- no
9. appointment (e.g., PT, outside appt)	1- yes 2- no
10. roommate requesting assistance	1- yes 2- no
11. roommate requesting attention	1- yes 2- no
12. staff request for help from CNA (specify)	1- yes 2- no
13. Identity of staff making request	1- nurse
	2- CNA
	3- other (specify)
14. Other interruptions (specify)	
15. No interruptions	
Aide-Specific Behaviors /Approaches during oral care	
<u>COMMUNICATION STYLE/APPROACH</u>	
<u>Non-verbal</u>	

1. Listens to resident	1- yes 2- no
2. Smiles	1- yes 2- no
3. unhurried	1- yes 2- no
4. communicates at eye level	1- yes 2- no
<u>VERBAL (tone & speech construction)</u>	
1. Speaks slowly	
2. speaks clearly	
3. speaks rapidly	
4. speaks in a low tone	
5. repeats/rephrases directions	
6. engages in short, quiet conversation with pt before oral care	
7. explains each step	
8. asks if resident has any oral health concerns/problems	
9. rewards positive behavior	
10. uses short words/simple sentences	
11. CNA demonstrates/models desired behavior	
12. gives one instruction at a time	
(e.g., will you please open your mouth?)	
(e.g., please stick out your tongue)	
13. validates feelings	
14. friendly/congenial tone	
15. calm tone	
16. reassuring tone	
17. complimentary tone/speech	

18. non-threatening tone

19. angry tone

20. neutral tone

21. abrupt tone

22. other tone (specify)

23. yelling at resident

24. verbally threaten resident

25. argues with resident

PHYSICAL INTERVENTION

1. gentle touch

2. holds hand (s)

3. hand massage

4. firm touch

5. aggressive touch

6. physically threaten

7. enlists help of another caregiver

8. approach from behind

9. approach from front/side/within residents' visual field

10. distraction (e.g., soft washcloth, soft squeeze ball)

11. mouth props

12. other "tools" (to break peri-oral spasms; gain access)

(e.g., tongue blade; other toothbrush) (specify)

13. provides visual cues (show; let resident hold brush)

14. comfortable position

15. uses physical force

16. speaks to “good” ear if HOH

17. uses spray bottles/atomizers for mouthrinsing

18. other (specify)

ENVIRONMENTAL STRATEGIES

1. reduces noise level 1- yes 2- no

2. turns radio volume down/off 1- yes 2- no

3. turns TV volume down/off 1- yes 2- no

4. decreases # people in room 1- yes 2- no

5. plays soothing/familiar music 1- yes 2- no

6. provides privacy (pulls curtain; shuts door) 1- yes 2- no

7. other (specify)

RESIDENT-SPECIFIC

1. Location of oral care 1- bed

2- bathroom

2. Resident's LOC	1- awake
	2- awake/drowsy
	3- asleep
3. Resident's position	1- standing
	2- in bed, lying down
	3- in bed, sitting
	4- sitting, in chair
4. Positioning difficulties encountered	1- yes (describe)
	2- no
5. Additional staff assistance used to position	1- yes
	2- no
6. Number of additional staff used	1- none
	2- one
	3- two
	4- other (specify)

CNA response to Resistiveness

Action/Behavioral interventions

1. Call for assistance 1- yes 2- no

2. Distracts resident 1- yes 2- no

(describe strategy, e.g., reminiscence, jokes, soft cloth)

3. Tries to relax the resident 1- yes 2- no

4. Uses humor 1- yes 2- no

5. Uses music 1- yes 2- no

6. Yells at resident 1- yes 2- no

7. Argues with resident 1- yes 2- no

8. verbally threatens resident 1- yes 2- no

8. discontinues task 1- yes 2- no

9. changes noise level 1- yes 2- no

10. leaves room 1- yes 2- no

10. continues activity 1- yes 2- no

Physical Interventions

1. Gentle Touch 1- yes 2- no

2. Aggressive touch 1- yes 2- no

3. Firm touch 1- yes 2- no

4. uses mouth props/tools 1- yes 2- no

5. provides visual cues (e.g., show resident; 1- yes 2- no

(let resident hold toothbrush)

Tone of Voice

- | | |
|----------------------------|---------------------|
| 1. calm | 1- yes 2- no |
| 2. angry | 1- yes 2- no |
| 3. loud | 1- yes 2- no |
| 4. abrupt | 1- yes 2- no |
| 5. friendly | 1- yes 2- no |
| 6. unhurried | 1- yes 2- no |
| 7. happy | 1- yes 2- no |
| 8. neutral | 1- yes 2- no |
| 9. affectionate | 1- yes 2- no |
| 10. annoyed | 1- yes 2- no |
| 11. other (specify) | |

Verbal Communication Strategy

- | | |
|---|---------------------|
| 1. speaks slowly | 1- yes 2- no |
| 2. speaks rapidly | 1- yes 2- no |
| 3. demonstrates desired behavior | 1- yes 2- no |
| 4. gives one instruction at a time | 1- yes 2- no |
| 5. repeats/rephrases | 1- yes 2- no |
| 6. rewards positive behavior | 1- yes 2- no |
| 7. listens to resident | 1- yes 2- no |
| 6. Other (specify) | |

Resident Response to Intervention

Impact on RTC behavior(s):

- | | |
|-----------------------------|--------------|
| 1. exacerbated (specify) | 1- yes 2- no |
| 2. resolved (specify) | 1- yes 2- no |
| 3. improved (specify) | 1- yes 2- no |
| 4. unchanged (specify) | 1- yes 2- no |
| 5. other response (specify) | |

Appendix 3

Resistiveness to Care Scale

Behavior	
1.	Gegenhalten
2.	Grab object
3.	Say no
4.	Adduct
5.	Grab person
6.	Pull away
7.	Clench
8.	Cry
9.	Scream
10.	Turn away
11.	Push away
12.	Hit/kick
13.	Threaten

Note. Gegenhalten refers to body movements which are of equal force but in an opposite direction from those of the caregiver.

Appendix 4 A Consent form for residents (English version)



CONSENT FORM

Research Project Leaders

Dr. Mary Ellen Macdonald

Email: mary.ellen@mcgill.ca

Tel: 514-398-7203 ext. 09056

Dr. Amir Manzoor Shah

Email: amir.shah@mail.mcgill.ca

Tel: 514-441-9167

Resident Information Sheet and Informed Consent

A Study of Morning Care in Nursing Homes

Principle Investigator

Introduction

This sheet describes a research study being conducted at your nursing home in which you are being asked to participate. McGill University is conducting this study in cooperation with this nursing home to evaluate the quality of morning care.

Purpose of the Study

The purpose of the study is to better understand the nursing care residents receive in the morning from their nurse's aides, such as assistance with grooming and bathing. Approximately 140 residents are expected to participate in this study.

Description of Study Procedures

If you agree to participate in this study, the morning care you normally receive from your nursing assistant will be directly observed one-time by the principle investigator, who will be taking some notes regarding this care. You will still receive all your normal care and your morning routine will not be changed as a result of your participation in this study. For this study, it may be necessary to talk to nursing staff and/or review documentation in your chart about your care and medical condition(s).

Risks of Participation

There are no anticipated risks to you should you choose to participate in this study. It is possible that you may experience a temporary or brief loss of privacy because your morning care is being observed. To minimize this risk, the observers for this study will be familiar with nursing homes and will remain as unobtrusive as possible.

**Benefits of Participation**

There is the possibility that by participating in this study, you will receive better morning care since that care is being observed.

There is also the possibility that the findings from this study could result in improvements in morning care for nursing home residents.

Alternatives

The alternative to participating in this study is not to participate.

Confidentiality of Records

Your identity and information collected for this study will be kept confidential and kept in a locked cabinet in the principal investigator's office. The result of this research may be presented at meetings or in publications; however, your identity will not be disclosed.

Voluntary Participation

Participation in this study is entirely voluntary. You are free to not participate or to withdraw at any time, for whatever reason, without loss of present or future care you would otherwise receive. In the event that you do withdraw from this study, the information already obtained will be kept in a confidential manner.

Contact Person

For more information concerning your rights as a research participant, please contact the Senior Ethics Administrator at the Faculty of Medicine REB at 514-398-8302.

Patient/Guardian

Witness

Date

Amir M Shah

MSc. Student

Faculty of Dentistry

Oral Health and Society Division

3550 University Street,

Montreal, Quebec H3A 2A7

amir.shah@mail.mcgill.ca

By signing this consent form, I: Do not give up my legal rights,

- ☛ Acknowledge that the study has been explained to me and my questions have been answered to my satisfaction, and
- ☛ Agree to participate in this study.

Signature of Participant

Name (Printed)

/ /
day/month/year

Appendix 4 B Consent form for residents (French version)



FORMULAIRE DE CONSENTEMENT

Responsable du projet de recherche

Dr. Mary Ellen Macdonald
Email: mary.ellen@mcgill.ca
Tel: 514-3987203 ext 089405

Dr. Amir Manzoor Shah
Email: amir.shah@mail.mcgill.ca
Tel: 514-441-9167

Étude de recherche en soins matinaux dans un établissement de soins de longue durée

Introduction

Ce formulaire décrit une étude de recherche menée à votre hôpital pour laquelle il vous est demandé de participer. L'Université McGill étudie pour évaluer la qualité des soins du matin.

But de l'étude

Le but de l'étude est de mieux comprendre les soins infirmiers, que reçoivent les patients en matinée de leurs aides-soignantes, tels que l'assistance au toilettage ainsi que les soins pour se laver. Environ 140 patients devraient participer à cette étude.

Description des procédures de l'étude

Si vous acceptez de participer à cette étude, les soins matinaux que vous recevez normalement de votre infirmière seront fait sous observation, à une occasion, par un stagiaire, qui prendra quelques notes. En participant à cette étude, vous recevrez, comme à l'habitude, tous vos soins et votre routine matinale ne sera pas changée. Pour cette étude, il pourra être nécessaire de parler au personnel infirmier et/ou consulter la documentation de votre dossier en lien avec vos soins médicaux et votre état de santé.

Risques de votre participation

Il n'y a aucun risque à participer à cette étude. Il est possible que vous expérimentiez une perte temporaire de votre intimité et de votre vie privée puisque vos soins matinaux seront observés. Pour réduire ce risque, les observateurs de cette étude seront familiers avec le personnel infirmier et hospitalier, et resteront aussi discret que possible.

Avantages de votre participation

Il existe la possibilité qu'en participant à cette étude, vous recevrez de meilleurs soins puisque ces soins seront observés. Il y a aussi la possibilité que les conclusions de cette étude puissent déboucher sur de meilleurs soins pour les patients de l'établissement.

Confidentialité des enregistrements

Votre identité et les informations recueillies pour cette étude seront gardés confidentiels et conservés dans une armoire verrouillée sous clé. Le résultat de cette recherche pourra être présenté lors de réunions ou être publié; toutefois, votre identité ne sera jamais dévoilée.

**Participation volontaire**

La participation à cette étude est entièrement volontaire. Vous êtes libre de ne pas participer ou de vous retirer à tout moment, pour quelque raison que ce soit, sans perdre quelques soins que ce soit, ni la qualité de ces derniers. Dans l'hypothèse où vous décidiez de vous retirer de l'étude, nous verrons à protéger le caractère confidentiel des informations déjà colligées.

Personne à contacter

Pour plus d'informations au sujet de vos droits, à titre de participant à cette recherche, veuillez contacter l'infirmière chef en charge de votre département. L'équipe de recherche peut être joint au 514-441-9167.

Amir M Shah
Université McGill
amir.shah@mail.mcgill.ca.

Signature du participant / ou de son curateur,
le tuteur ou le conseiller du majeur

(nom en lettres moulées)

____/____/____
jour / mois / année

Appendix 5: Consent form for ANS



CONSENT FORM

Research Project Leaders

Dr. Mary Ellen
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Email:
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Tel: 514-398-7203 ext.
089405

Dr. Amir Manzoor Shah
Email: amir.shah@mail.mcgill.ca
Tel: 514-441-9167

A Study on Morning Care in functionally Dependent Patients

Allied Nursing Staff Consent

The care of the functionally dependent patient is a difficult and time consuming process. The objective of this study is to observe some of the difficulties encountered in morning care and time requirements by allied nursing staff. Your participation in this study is not obligatory. Your confidentiality will be maintained, you will not be identified to any administrative personnel. Results from this study will be discussed only in regard to the observed difficulties and time requirements. The results of this study will be used to improve patient care.

Benefits and Risks:

There are no risks associated in this study. The benefits of this study will be a better understanding of the difficulties associated with morning care and time requirements.

Compensation:

There is no compensation for participation in this study. Participation in this study is voluntary. You are under no obligation to participate in this study. Your employment will not be affected by your decision to participate or not, in this study.

Confidentiality:

All data information will be stored in a locked file cabinet. Your name will not be identified to any personnel.

Involvement:

Your participation in this study will not involve any additional time outside your regular working hours, and will be limited to the duration of the regular morning care provided.

The study has been explained to me and my questions have been answered to my satisfaction. I agree to participate in this study. For any questions regarding your rights as a research participant, please contact the Senior Ethics Administrator at the Faculty of Medicine REB at 514-398-8302.

Allied Nursing Staff

Witness

Date