Oral Health Think Tank

2016 Summary Report

UNIVERSITY OF ALBERTA

Network for Canadian Oral Health Research
Réseau canadien de recherche en santé buccodentaire

RIA Research Institute for Aging
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The Oral Health Think Tank (March 30-31, 2016) was hosted at the Schlegel-University of Waterloo Research Institute for Aging (RIA) in Waterloo, Ontario. Additional support was provided from the Network for Canadian Oral Health and Research (NCOHR).

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Dedication

This report is dedicated to Dr. Michael T. Sharratt (1942-2016) whose vision and passion for advancing oral health and care for older people made the Think Tank described within possible. Dr. Sharratt was president of the Schlegel-UW Research Institute for Aging from 2006-2016 and during this time saw the gap in both research and practice related to optimal oral care, particularly in long-term care. He understood the importance of oral health to overall well-being and saw the immense potential to improve quality of life by making oral care a priority. He brokered partnerships and inspired others to pursue this work, ultimately kick-starting this unique collaboration to advance the oral health research agenda. His efforts will live on as this work continues, enhancing oral health and ultimately quality of life for long-term care residents.

Acknowledgements

The Oral Health Think Tank (March 29-30, 2016) was hosted by the Schlegel-University of Waterloo Research Institute for Aging (RIA). Funding was provided by the Network for Canadian Oral Health Research for funding this team building workshop with additional support provided by the Schlegel Centre for Learning, Research and Innovation in Long-Term Care.

We would like to thank all workshop participants who traveled nationally and internationally to participate in this meeting. In particular, we appreciate the participation of the team members from Schlegel Villages for sharing their hands-on experiences and unique perspectives on oral health in long-term care.

For More Information

For more information regarding the Oral Health Think Tank and/or this summary report, please contact Dr. Minn Yoon at minn.yoon@ualberta.ca.

To learn more about RIA, visit www.the-ria.ca.

Executive Summary

The effects of poor oral health can be significant for older people. Poor oral health can affect overall health, for example, increasing the risk of aspiration pneumonia and decreasing food intake and nutritional status. Poor oral health may also impact quality of life for older people, who can lose self-esteem and become socially isolated as a result of conditions such as bad breath or altered speech from missing teeth.

Many older people in long-term care homes need support to complete some or all basic activities of daily living, including oral hygiene. However, oral care may often be given low priority due to limited knowledge about the importance of oral hygiene and the risk it poses to health and well-being if neglected.

Given the importance of this issue, the Schlegel-University of Waterloo Research Institute for Aging (RIA) in collaboration with the University of Alberta brought together international researchers and key stakeholders from long-term care to develop research priorities addressing the gap in our ability to translate knowledge about oral health practices in long-term care. The session was co-funded by the Network for Canadian Oral Health and Research, RIA, and the Schlegel Centre for Learning, Research and Innovation.

An international, multidisciplinary group gathered to identify root causes of poor oral health by participating in round table discussions focusing on four key areas: assessment; prevention; treatment; and communication.

After these discussions, the group prioritized and ranked three key areas of focus for oral health research:

1. Understanding the preferences and priorities of stakeholder groups across time
2. Understanding the context and consequences of oral care
3. Understanding communication pathways to address the individual needs of residents

The overwhelming focus of the day's discussions was on putting the resident at the center of research by identifying the oral health priorities and preferences of the residents themselves. Additionally, the need to understand ways in which those priorities are communicated and acted upon within multi-professional care teams, both internal and external to long-term care, was also identified.

By drawing on international experts and knowledge users, the Oral Health Think Tank created a strong foundation from which to move forward with in the development and implementation of an oral health research agenda to improve the oral health of long-term care residents in Canada.

Background

The effects of poor oral health can be significant for older people. Poor oral health may lead to respiratory infections,[1] decreased nutritional health[2,3] and cardiovascular disease.[4-6] Besides, poor oral health may lead to decreased quality of life for older people, who can lose self-esteem and become socially isolated as a result of bad or missing teeth and defective dentures.

Many older people in long-term care homes need support to complete some or all basic activities of daily living, including oral hygiene.[9,10] Oral care may often be given low priority due to limited knowledge about the importance of oral hygiene and the risk it poses to health and well-being if neglected.[11-15] International studies have documented the widespread and consistently high rates of cavities, poor denture care, inflammation, and periodontal disease among older people in long-term care homes,[16] but there is no realistic and practical solution for correcting this very distressing problem. Moreover, oral health problems can be significantly magnified by dementia.[17,18] Evidence on efficacy of, and compliance with,[20] widely used oral health practices in the long-term care population is lacking.[13,14] For example, toothbrushing with fluoride toothpaste is well established; however, there is limited evidence of the specific benefits when such evidence is applied to older people who have complex oral care needs.

Researchers across Canada and internationally have begun to focus on this neglected area of research. For example, researchers from the US, China, UK, Canada, New Zealand and Europe held a 3-day workshop in Seattle in 2013 to review, assess and update the evidence for maintaining the oral health of older people.[22] They developed a care pathway for oral health treatment of older people. A recent article published out of the University of Iowa concluded there is little evidence to support the various existing treatment planning concepts.[23] Researchers at Dalhousie University recently developed an oral care action plan for daily mouth care in long-term care.[13]

For our Oral Health Think Tank, we proposed to assemble a new international interdisciplinary team from the Schlegel-UW Research Institute for Aging, University of Waterloo, University of British Columbia, University of Alberta, University of Iowa, University of Otago, Dalhousie and McGill to develop research priorities aimed at addressing current gaps in our ability to translate knowledge about oral health practices specific to long-term care. International experts and key stakeholders in long-term care oral health were invited to participate in the Oral Health Think Tank on March 29th-30th, 2016.

Prior to the meeting, participants were asked to consider the key factors causing poor oral health in long-term care. Day 1 included a site tour of a local long-term care home to provide an example of the Canadian long-term care context, and a networking dinner where participants reviewed and discussed the agenda and care pathway model to guide the full day meeting on Day 2. Day 2 engaged participants in a fishbone diagram activity and priority-setting process to generate potential target areas for future research.

Objectives

The objectives of this meeting were:

1. To establish a new multi-disciplinary team and outline key roles for team members
2. To integrate relevant considerations for older people's oral health from key stakeholders into a research protocol addressing the gap in our ability to translate knowledge about oral health practices specific to long-term care

Invited Attendees

This international, multidisciplinary team has extensive knowledge about aging and older people. It includes researchers, trainees and knowledge users from medicine, dentistry, dental hygiene, nutrition, and nursing. The involvement and feedback from clinical knowledge users, including nurses, a dietitian and personal support workers informed and guided the discussion and development of research considerations relevant to the long-term care community. Attendees are listed below in alphabetical order:

Paul Allison, PhD
Dean, Faculty of Dentistry, McGill University

Jackie Borrie
Registered Dental Hygienist

Michael Borrie, MB ChB, FRCPC
Geriatrician and Professor, Department of Medicine, Division of Geriatric Medicine, The University of Western Ontario

Arlynn Brodie, DipPSM, RDH, BPE, MHS
Assistant Clinical Professor, School of Dental Hygiene, Faculty of Medicine and Dentistry, University of Alberta

Lora Bruyn Martin, MASc
Innovation Integration Lead, Schlegel Villages Support Office (secondment)

Deborah Carr
Professor of Sociology at Rutgers University

Sharon Compton, PhD, BSc, MA (Ed), DipDH
Professor and Director of the Dental Hygiene Program; Associate Chair (Dental Hygiene) in the School of Dentistry, Faculty of Medicine and Dentistry at the University of Alberta

Corinna Derdaele
Personal Support Worker, Village of St. Clair

Hilary Dunn, MSc
Project Officer, Schlegel-UW Research Institute for Aging | Program Manager, Agri-food for Healthy Aging

Ronald L. Ettinger, BDS, MDS, DDSc, DABSCD
Professor Emeritus, Dept. of Prosthodontics and Dows Institute Of Dental Research, College of Dentistry, University of Iowa

Natalie Hall
Personal Support Worker, Village of St. Clair

Matthias Hoben
AIHS Postdoctoral Fellow, University of Alberta, Faculty of Nursing

Carla Ickert
Research Manager, Faculty of Nursing and School of Dentistry, University of Alberta

Heather Keller, PhD, RD, FDC
Schlegel Research Chair in Nutrition & Aging; Professor, Kinesiology, University of Waterloo; Research Scientist, Agri-food for Healthy Aging, Schlegel-UW Research Institute for Aging

Nadia Kobagi
Graduate Student, Masters of Medical Science in Dental Hygiene, University of Alberta

Teresa M. Lee, MN
Clinical Manager Élisabeth Bruyère Residence/APN long-term care, Bruyère Continuing Care, Ottawa, Ontario

Ibo MacDonald
RNAO long-term care Best Practices Coordinator in the Champlain Region

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Professor of Prosthodontics and Dental Geriatrics at the University of British Columbia

Lynda McKeown
RDH, HBA

Ashwini Namasivayam, PhD(C), S-LP(C), Reg. CASLPO
Speech-Language Pathologist, Laboratory Toronto Rehabilitation Institute, University Health Network; PhD Candidate, Speech-Language Pathology, University of Toronto

Helen Niezgoda, B,Sc.N, MSc
Gestionnaire des opérations, recherche clinique/ Operations Manager, Clinical Research Institut de recherche Bruyère/ Bruyère Research Institute

Michelle Quick-Fateaux
Dental Hygienist, Personal Support Worker, Village of St. Clair

Michael Sharratt, PhD
President, Schlegel-UW Research Institute for Aging

Jennifer Sherwood
Registered Dietitian, Village at University Gates

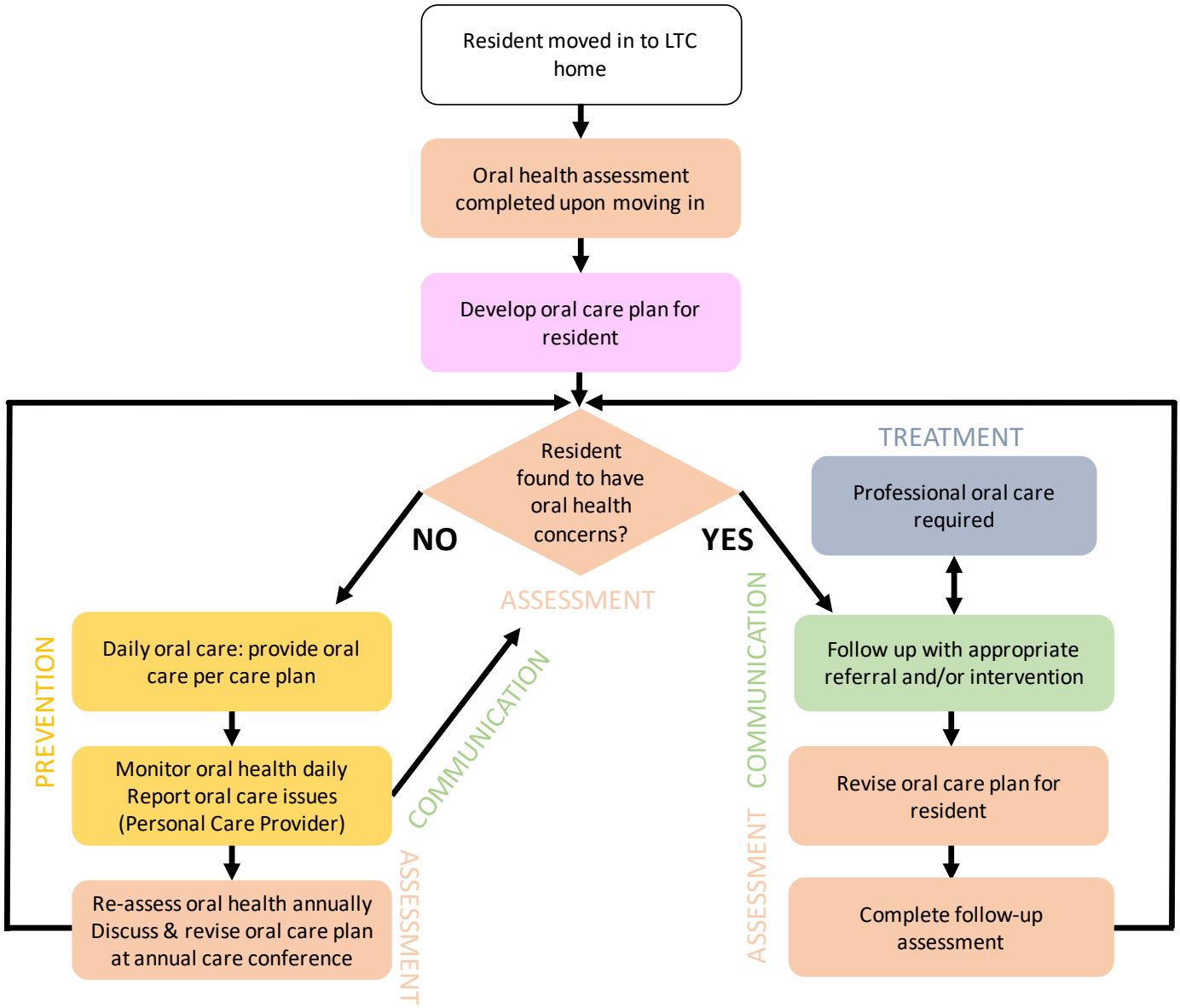
Murray Thomson
Professor, Head of the Department of Oral Sciences in the School of Dentistry at Otago University

Mary-Lou van der Horst
Director, Schlegel Centre for Learning, Research, and Innovation in Long-Term Care

Shaun Watson
Personal Support Worker, Village at St. Clair

Minn N. Yoon, PhD
Assistant Professor, School of Dentistry, University of Alberta

Care Pathway Model



Adapted from:

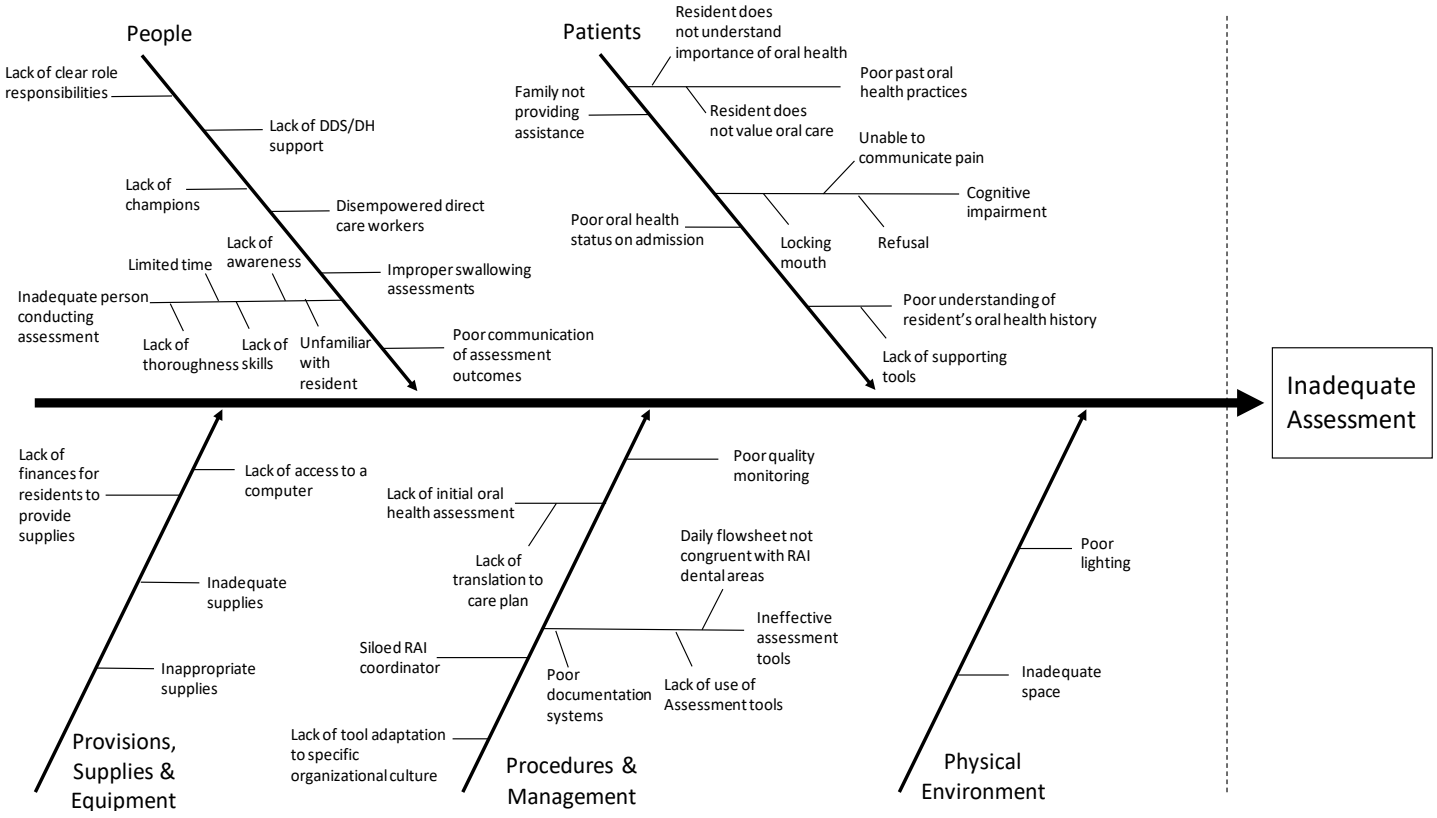
McNally, M. et al. (2015). Implementing oral care practices and policy into long-term care: the Brushing up on Mouth Care project. JAMDA. 16(3): 200-207.

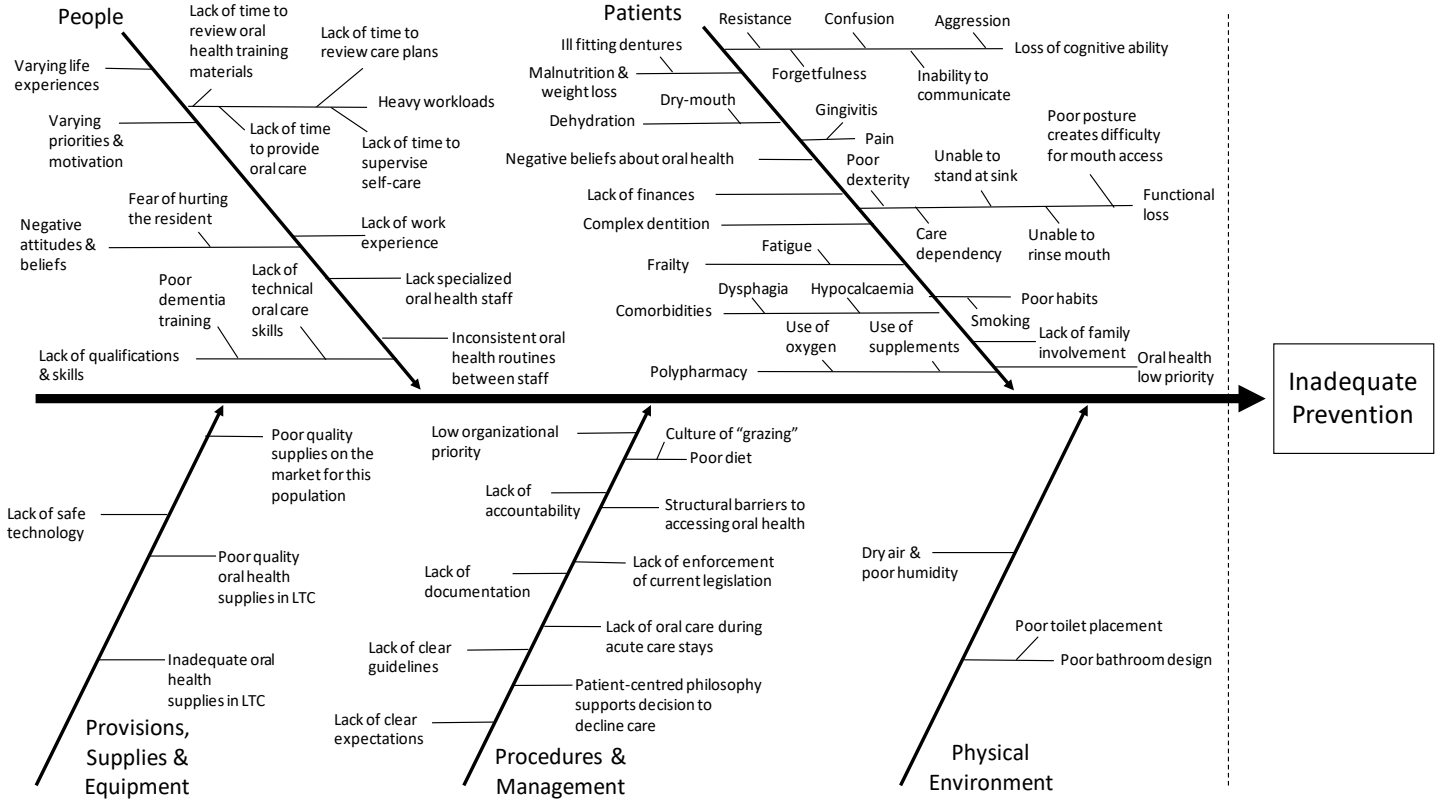
Pretty, I. et al. (2014). The Seattle Care Pathway for securing oral health in older patients. Gerondontology. 31 (Suppl. 1) 77-87.

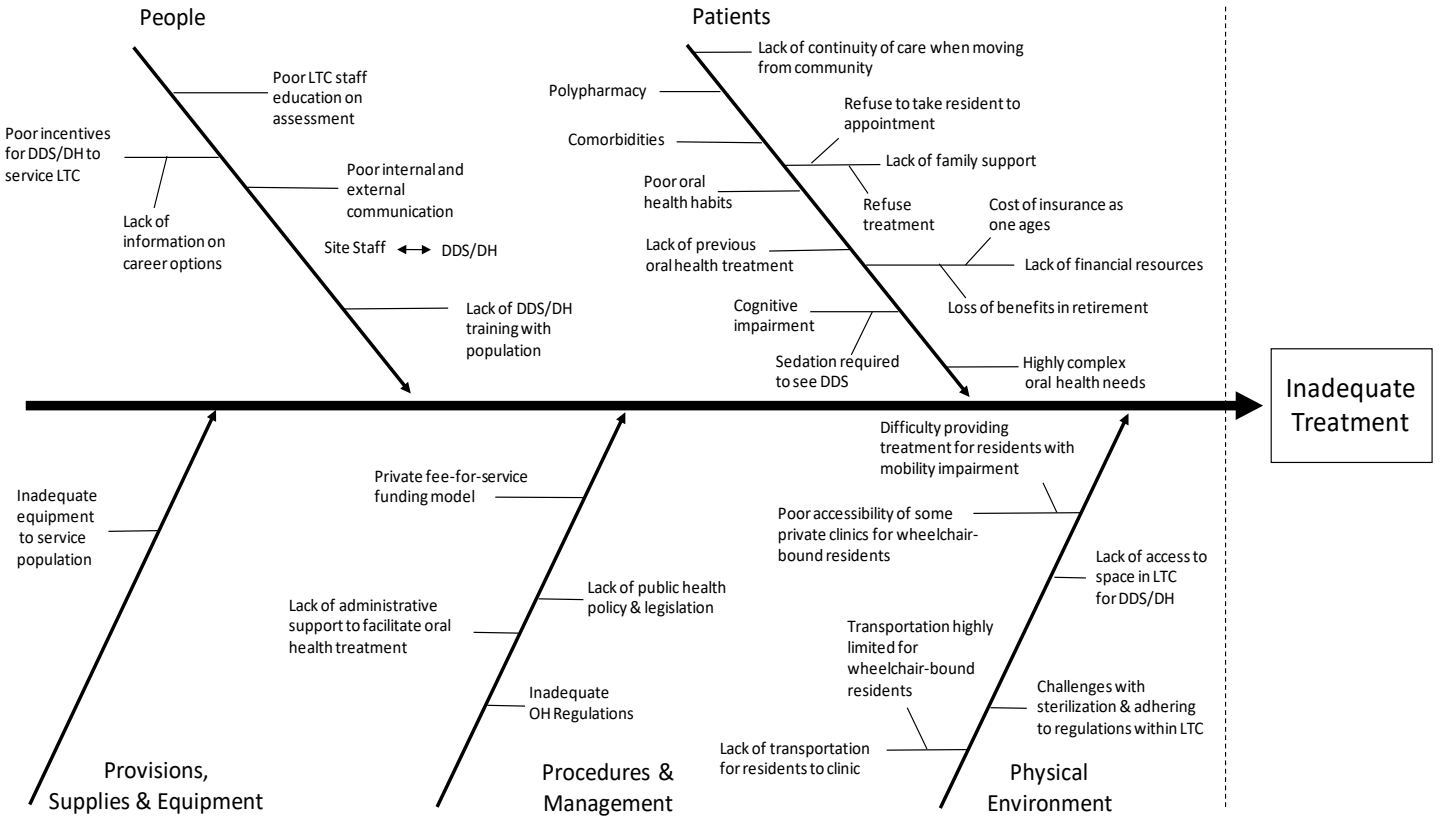
Key Think Tank Outcomes

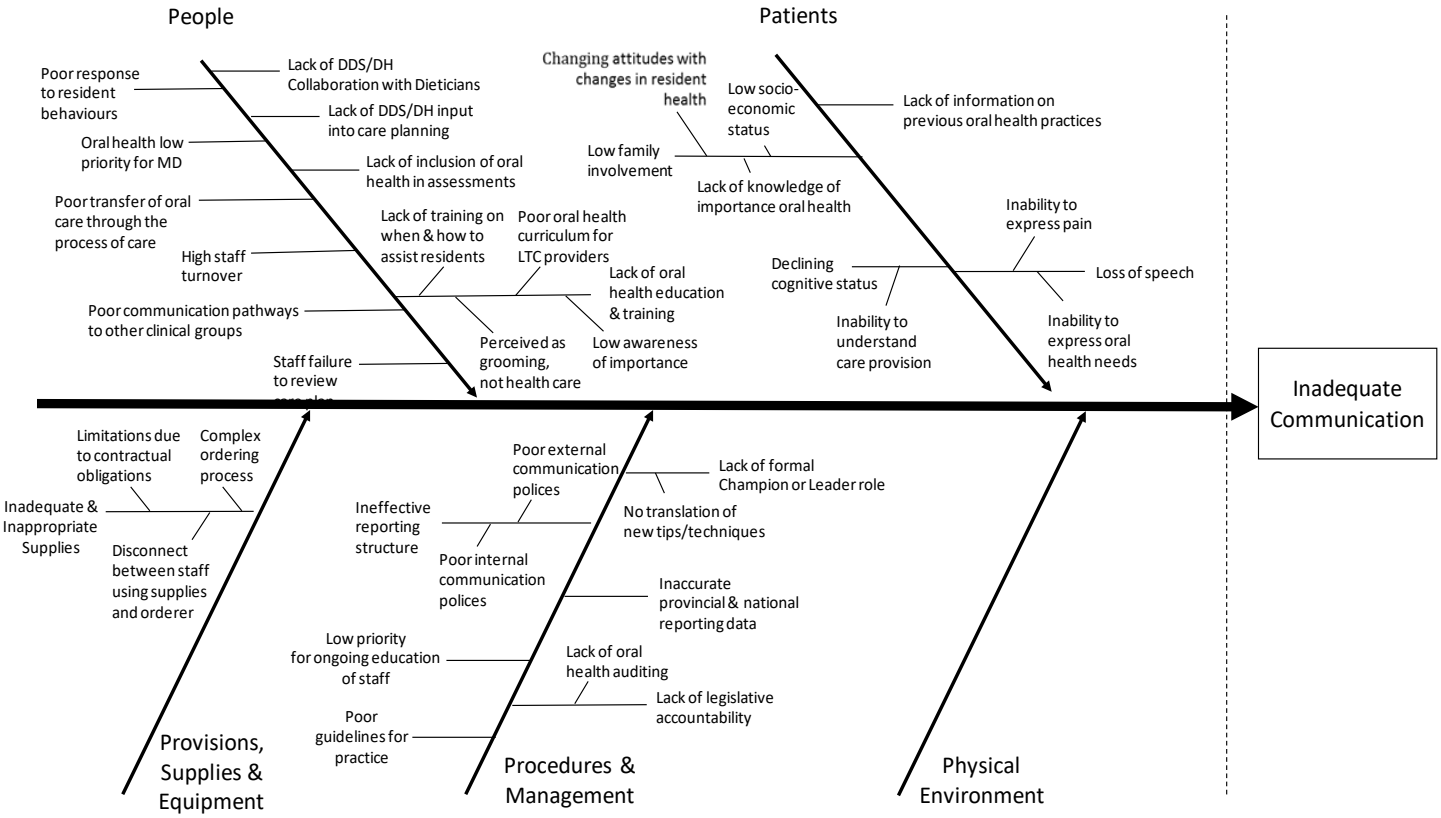
During the morning of March 30, Ishikawa cause-and-effect, or "fishbone," diagrams[24] were used to identify the root causes contributing to poor oral health in long-term care. In this process, a problem to be solved is placed at the right side of a large piece of paper or whiteboard, with a backbone drawn horizontally down the middle. Participants add bones to the fish by identifying causes of the problem. Sub-causes can be generated from the larger bones as participants identify root causes of the problem. Four fishbone diagrams were developed which corresponded to the four care pathway actions identified by the Seattle Care Pathway: assessment; prevention; treatment; communication.[25] For this Think Tank, the main "bones" for each of the four diagrams were divided into five categories: physical environment; people; patients; provisions, supplies and equipment; and procedures and management.[26]

Final Fishbone Diagrams Developed by Attendees






People
Patients
Poor LTC staff education on assessment
Poor incentives for DDS/DH to service LTC
Poor internal and external communication
Lack of information on career options
Site Staff ↔ DDS/DH
Lack of DDS/DH training with population
Lack of continuity of care when moving from community
Polypharmacy
Refuse to take resident to appointment
Comorbidities
Lack of family support
Poor oral health habits
Refuse treatment
Cost of insurance as one ages
Lack of previous oral health treatment
Lack of financial resources
Cognitive impairment
Loss of benefits in retirement
Sedation required to see DDS
Highly complex oral health needs
Inadequate Treatment
Inadequate equipment to service population
Private fee-for-service funding model
Lack of public health policy & legislation
Lack of administrative support to facilitate oral health treatment
Inadequate OH Regulations
Difficulty providing treatment for residents with mobility impairment
Poor accessibility of some private clinics for wheelchair-bound residents
Lack of access to space in LTC for DDS/DH
Transportation highly limited for wheelchair-bound residents
Challenges with sterilization & adhering to regulations within LTC
Lack of transportation for residents to clinic
Provisions, Supplies & Equipment
Procedures & Management
Physical Environment


People
Patients
Poor response to resident behaviours
Lack of DDS/DH Collaboration with Dieticians
Lack of DDS/DH input into care planning
Oral health low priority for MD
Lack of inclusion of oral health in assessments
Poor transfer of oral care through the process of care
Lack of training on when & how to assist residents
Poor oral health curriculum for LTC providers
High staff turnover
Lack of oral health education & training
Poor communication pathways to other clinical groups
Perceived as grooming, not health care
Low awareness of importance
Staff failure to review
Changing attitudes with changes in resident health
Low socio-economic status
Lack of information on previous oral health practices
Low family involvement
Lack of knowledge of importance oral health
Inability to express pain
Declining cognitive status
Loss of speech
Inability to understand care provision
Inability to express oral health needs
Inadequate Communication
Limitations due to contractual obligations
Complex ordering process
Inadequate & Inappropriate Supplies
Disconnect between staff using supplies and orderer
Poor external communication polices
Lack of formal Champion or Leader role
Ineffective reporting structure
No translation of new tips/techniques
Poor internal communication polices
Inaccurate provincial & national reporting data
Low priority for ongoing education of staff
Lack of oral health auditing
Lack of legislative accountability
Poor guidelines for practice
Provisions, Supplies & Equipment
Procedures & Management
Physical Environment

Research Priority Areas

Over the lunch hour on March 30, a small group of Think Tank leads developed nine priority areas from the fishbone diagram results. This sub-group examined the fishbone diagrams to identify key areas that occurred across diagrams and with high frequency. Nine priority areas were developed by consensus within this sub-group to bring forward for full group discussion during the afternoon session. The full group discussed and further developed these priority areas during the afternoon discussion session.

1. Biological Markers of Oral Health
2. Defining and Measuring Quality of Life for Long-term Care Population
3. Preferences and Priorities of Long-term Care Stakeholders Over Time
4. Communication Pathways to Address Individual Needs
5. Understanding the Context & Consequences of Oral Care
6. Understanding Resident Willingness to Live with Risk
7. Dementia Training for Staff
8. Relationship Between Food and Oral Health
9. Accountability of Stakeholders
10. Supporting Direct Care Providers
11. Providing Resident-Centred Care

Key Priority Areas Developed by Think Tank Attendees

Once this list was developed, team members from long-term care were asked to share which factors they felt were most important and why. Participants recognized the immense value in hearing the perspectives of those who ultimately provide oral health care in long-term care. Each participant was then asked to rank their top three priority areas. The top three areas of priority, in order, were:

1. Preferences and Priorities of Long-term Care Stakeholders Over Time
2. Understanding the Context and Consequences of Oral Care
3. Communication Pathways to Address Individual Needs

These three priority areas were discussed during the last half of the afternoon session and key considerations emerged.

Key Considerations

There are many considerations when trying to improve oral health in long-term care. Key considerations discussed by Think Tank Attendees are described below:

Competing Priorities – Team members in long-term care have multiple demands on their time when caring for residents. Often, oral care is omitted from care activities in favour of other more pressing activities of daily living such as bathing and dressing. Some residents and family members do not prioritize the residents' oral health care and refuse oral care or fail to schedule regular dental care treatment.

Team Member Skills and Knowledge – There is a perceived lack of knowledge by the care team on the importance of oral health for a residents' overall health and wellbeing. Many team members also lack skills for the proper delivery of oral care to residents who have physical challenges or are living with dementia. Residents and family members similarly lack knowledge regarding the crucial role oral health plays in overall health.

Financial Concerns – In Canada, oral health care is not a publically funded health care service. Residents in long-term care may often be responsible for paying out-of-pocket for dental treatments. Many residents and family members may not be able to afford the dental treatments or even forgo recommended preventative oral care and treatment due to concerns about cost.

These key considerations are essential to addressing the inadequate assessment, prevention, treatment and communication outlined in the fishbone diagrams above. Inadequate prevention is rooted in the challenges of competing demands on care staff's time. Similarly, proper oral health assessment requires prioritization of those activities by busy care staff with a litany of other tasks to complete. Both proper assessment and prevention require adequate skills and knowledge of staff members and communication from oral health experts and care home managers. Adequate treatment and prevention require a significant reflection of the financial concerns for both the residents and the care homes. These three considerations are key to addressing the inadequate assessment, prevention, treatment and communication of poor oral health in Canadian long-term care homes.

Next Steps

In addition to this publicly available Summary Report, publication in an academic journal is being pursued and the collective group will explore funding opportunities to address these issues. By partnering with international experts, research in this much-needed area will be accelerated and the results will have a significant impact on the health and quality of life of residents, and the quality of care in both Canadian and international long-term care homes.

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