

Introduction

Background

Saskatchewan had an estimated total population in 2016 of 1,098,355, 15.52% (n= 170,430) of whom are seniors (individuals ≥65 years old)¹. The total number of residential-based continuing care homes is 155, with 12,718 residents (90% seniors, and 55% individuals 85 years and above)².

Poor oral health among residents in Long Term Care (LTC) homes is a rising concern in Saskatchewan which is mainly due to inadequate daily oral care and pre-existing medical conditions of residents³. The evidence strongly supports the link between poor oral health and diseases such as diabetes and pneumonia. Providing oral care in LTC homes reduces the risk of aspiration pneumonia morbidity and mortality⁴.

Better Oral Health in Long Term Care: Best Practice Standards for Saskatchewan

History: Since 2011, the Saskatchewan Oral Health Coalition (SOHC) and Saskatchewan Oral Health Professions (SOHP) have collaborated to develop a model for oral health care in LTC. Better Oral Health in Long Term Care (BOH in LTC) has been adapted from the *Australian Better Oral Health in Residential Care*.

In 2014, the program was focus tested at Parkridge Centre in Saskatoon Health Region (SHR). This pilot was used as the model for full implementation in other LTC homes in SHR. In 2015, SHR hired a dental assistant into the LTC Oral Health Coordinator (LTC-OHC) position to implement and maintain the program in LTC homes.

Overview: BOH in LTC framework is a train-the-trainer model teaching the best practices to provide daily oral care. It takes a collaborative, team approach to assist in the maintenance of a healthy mouth in all of the four key processes:

Oral Health Assessment	Performed by a Licensed Oral Health Professional
Oral Health Care Plan	Developed by Oral Health Care Team and residents
Daily Oral Hygiene	Maintained by Care Aides
Oral Health Treatment	Referrals made for a comprehensive examination/treatment

The framework includes three comprehensive portfolios, Oral Health Assessment Tool (OHAT), Oral Health Care Plan (OHCP), posters, and pamphlets (available at www.saskohc.ca).

Educator's Portfolio For Education/Training



Professional Portfolio For Nurses



Staff Portfolio For Care Aides



Impact: The majority of Saskatchewan health regions have expressed interest in or implemented BOH in LTC program.

Objective

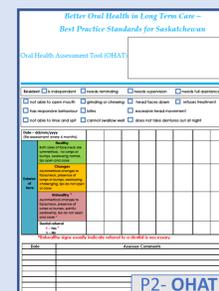
This study was conducted to analyze the oral health status of residents of two LTC homes in Saskatchewan and assess the effects of the implementation of BOH in LTC Program over six months.

Methods

BOH in LTC Program was fully implemented at two LTC homes (SherBrooke Community Centre and SunnySide Adventist Centre) in SHR in 2016-2017.

Training: A LTC-OHC provided educational trainings to Managers, Registered Nurses (RNs) and Continuing Care Aides (CCAs) through a 3-hour learning module, a 3-hour hands-on session and pre and post tests.

Initial Oral Health Assessment: Initial oral health assessment of 252 LTC residents was conducted using a color-coded OHAT (**Healthy**, **Changes**, **Unhealthy**) by LTC-OHC or trained RN. Nine aspects of the residents' mouth (exterior of face, lips, tongue, gums, oral cleanliness, teeth, denture, saliva, and dental pain) were examined by visual approach (Pictures 1,2).



Oral Health Care Plan: The oral daily care plan was made through a team approach (between LTC-OHC, RN, CCA). Then the care plan was posted on their mirror – as a mirror cling (Picture 3).

Daily Oral Hygiene: CCAs delivered daily oral care as to whether the residents need assistance with oral care or just reminding. Basic oral hygiene supplies were charged to each resident (Pictures below).



Oral Health Treatment: RNs followed up with checking the daily oral care that the CCAs provided and completed consents for referrals to a dentist. Fee-for-service dentistry was provided either on-site by a dentist or the residents' private practice dentist.

Follow-up Oral Health Assessment: After six months, the oral health status of residents was re-assessed.

Statistical Analysis : The oral health status of residents before and after program implementation was analyzed using Wilcoxon Signed-Rank Test (SPSS Statistics 22). P-value <0.05 was significant.

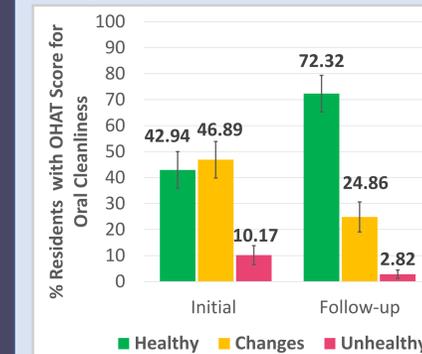
Results

Initially, the oral health status of 252 residents was assessed. However, missed 75 individuals were not followed up due to death or moving to another home. The data analysis included 177 participants. The oral health status of 177 residents, 92 females (52%) and 85 males (48%) with a mean age of 76.24±17.65 years was analyzed.

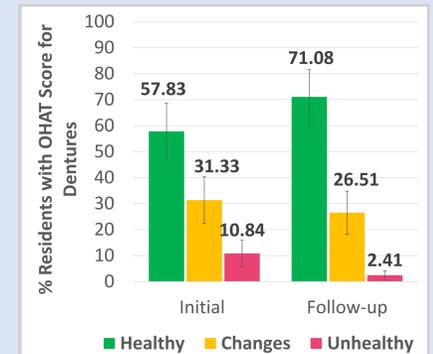
Training: In total, 49 staff (including Director of Care, Managers, CCAs, RNs) received training by LTC-OHC.

Oral Health Status: 111 (62.72%) individuals were dentate; 66 (37.28%) were edentulous; 83 residents (47%) used dentures.

The OHAT scores for 6 aspects (lips, tongue, gums, oral cleanliness, denture, and saliva) significantly improved following 6 months (p<0.05). See below for a few examples (95% CI shown as error bars).



After 6 months: OHAT score for oral cleanliness improved (p<0.001); 40.6% more residents had clean mouths.



After 6 months: score for denture improved (p<0.001); 77.7% fewer residents had unhealthy dentures.

Referrals: 55% of the residents were referred to an oral health professional (e.g. dentist, denturist) for more comprehensive examination or treatment.

Conclusion

Residents who received care under BOH in LTC Program showed an improvement in their oral health status. The results also signifies the role of LTC-OHC, who works collaboratively with the LTC team, in improving the oral health care.



We continue to recommend that a LTC-OHC should be employed in each health region to facilitate the delivery of initial oral assessments, dental examinations and treatment, daily oral hygiene for residents and oral health education. This is one of the 10 recommendations that was developed and endorsed by SOHC and SOHP for consideration and action by the Saskatchewan Ministry of Health.

References

- 1-Statistics Canada. Age and Sex Highlight Tables, 2016 Census.
- 2-Continuing Care Reporting System, 2015–2016, Canadian Institute for Health Information.
- 3- Wyatt CC. A 5-year follow-up of older adults residing in long-term care facilities: utilization of a comprehensive dental program. *Gerontology*. 2009; 26(4):282-90.
- 4-Yoneyama T, et al. Oral care reduces pneumonia in older patients in nursing homes. *J Am Geriatric Soc*. 2002;50(3):430-3.

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