

Improving The Oral Care of The Elderly Through an Oral Health Education Program for Nursing Staff

A Multidisciplinary Pilot Study for the Aged Care Ward at SVH

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Background to the Project

- Australia has an ageing population (Kippen, 2002).
- Improvements in healthcare can be seen as a major contributing factor to increased life expectancy.
- The challenge is to ensure that older Australians can enjoy good health in these later years, so there is a need to reduce risk factors for morbidity and mortality (Healy, 2004).



Background to the Project

- Oral care has been highlighted as vital in preventing the development of aspiration pneumonia in the elderly (Langmore et al: 2002; Langmore et al: 1998; Terpenning et al: 2001; Abe et al: 2001).
- Oral care within the hospital is routinely performed by nursing staff or with the supervision of nursing staff.
- The literature indicates that oral care is often not highly prioritised and nursing staff knowledge of what constitutes sufficient oral care is inadequate (Crosby: 1989; Hatton-Smith:1994; Adams:1996).



Aims of the Project

- Investigate the effectiveness of nursing staff education on the oral health of patients admitted under Geriatrics to the Aged Care Ward and Medical Assessment Unit of SVH.
- Highlight the importance of a multidisciplinary approach to the management of oral care.



Design of the Project

Evaluation Study

- **Phase One: Pre-education patient screening using the Oral Health Assessment Tool (OHAT) (Chalmers et al, 2005)**
 - 50 patients; admitted under geriatrics; screened within 72 hrs of admission to the ward.
- **Phase Two: Pre-education nursing staff survey.**
 - Aimed to survey 85%; CNE assisted in capturing staff.
- **Phase Three: Nursing staff education.**
 - Available to all staff; CNE assisted in scheduling education sessions.
- **Phase Four: Post education patient screening using the OHAT.**
- **Phase Five: Post education nursing staff survey.**
- **Phase Six: Data analysis.**



Breaking down the design :

The Oral Health Assessment Tool (OHAT)

- The Oral Health Assessment Tool (OHAT) is a widely accepted validated tool for assessing various aspects of oral health status.
- It is a quick and easy one page document that is used to identify common healthy and unhealthy conditions associated with the mouth, tissues and dentures.
- The OHAT contains eight categories which include:
 - Lips
 - Tongue
 - Gums and Tissues
 - Saliva
 - Natural Teeth
 - Dentures
 - Oral Cleanliness
 - Dental Pain



Resident: _____		Completed by: _____		Date: ___/___/___
Scores – You can circle individual words as well as giving a score in each category (* if 1 or 2 scored for any category please organize for dentist to examine the resident)				
Category	0 = healthy	1 = changes*	2 = unhealthy*	Category scores
Lips	smooth, pink, moist	dry, chapped, or red at corners	swelling or lump, white/red/ulcerated patch; bleeding/ulcerated at corners	
Tongue	normal, moist roughness, pink	patchy, fissured, red, coated	patch that is red and/or white, ulcerated, swollen	
Gums and tissues	pink, moist, smooth, no bleeding	dry, shiny, rough, red, swollen, one ulcer/sore spot under dentures	swollen, bleeding, ulcers, white/red patches, generalized redness under dentures	
Saliva	moist tissues, watery and free flowing saliva	dry, sticky tissues, little saliva present, resident thinks they have a dry mouth	tissues parched and red, very little/no saliva present, saliva is thick, resident thinks they have a dry mouth	
Natural teeth Yes/No	no decayed or broken teeth/roots	1 -3 decayed or broken teeth/ roots or very worn down teeth	4 + decayed or broken teeth/roots, or very worn down teeth, or less than 4 teeth	
Dentures Yes/No	no broken areas or teeth, dentures regularly worn, and named	1 broken area/tooth or dentures only worn for 1-2 hrs daily, or dentures not named, or loose	more than 1 broken area/tooth, denture missing or not worn, loose and needs denture adhesive, or not named	
Oral cleanliness	clean and no food particles or tartar in mouth or dentures	food particles/tartar/plaque in 1 -2 areas of the mouth or on small area of dentures or halitosis (bad breath)	food particles/tartar/plaque in most areas of the mouth or on most of dentures or severe halitosis (bad breath)	
Dental pain	no behavioural, verbal, or physical signs of dental pain	are verbal &/or behavioural signs of pain such as pulling at face, chewing lips, not eating, aggression	are physical pain signs (swelling of cheek or gum, broken teeth, ulcers), as well as verbal &/or behavioural signs (pulling at face, not eating, aggression)	
<input type="checkbox"/> Organize for resident to have a dental examination by a dentist <input type="checkbox"/> Resident and/or family/guardian refuses dental treatment <input type="checkbox"/> Complete Oral Hygiene Care Plan and start oral hygiene care interventions for resident <input type="checkbox"/> Review this resident's oral health again on Date: ___/___/___				TOTAL SCORE: <u>16</u>

Fig 1. Oral Health Assessment Tool (OHAT) for Dental Screening (modified from Kayser-Jones et al (1995) by Chalmers (2004)).



Breaking Down the Design: The Nursing Staff Survey

- Both surveys included questions to ascertain nursing staff knowledge of oral health and assessment, the complications of poor oral hygiene and barriers to performing oral hygiene on the ward.
- Pre-education survey collected information about designation of the staff member, years qualified, whether they had ever received any training in oral care and whether they would be interested in attending training.
- Post-education survey contained questions evaluating the education.



Breaking Down the Design: The Education

- The results of the pre-education survey were used to develop an education package for nursing staff regarding oral health assessment and management in the elderly.
- The education was delivered over two one-hour sessions.
- The education was delivered in the form of a Power Point Presentation where handouts were provided.



Education Sessions

- Session One of the education:
 - Pre education and training quiz.
 - Brief overview of Better Oral Health
 - Good oral health is essential for healthy ageing.
 - DVD – Practical Oral Care
- Session Two of the education – Workshop:
 - Care of natural teeth
 - Toothbrush technique
 - Positioning alternatives
 - Care of dentures.



Outcome Measures

- Pre- and post-education survey scores
- Pre- and post-OHAT scores



Results: Pre-Education Nursing Staff Survey

- 23 nursing staff surveyed (64%).
- 38% registered nurses.
- 50% qualified for > 6 years.
- 92% received oral care instruction during their training.
- 67% have received more training since qualifying.
- 96% of nursing staff felt patients should have an assessment of their oral health on admission and that this should be the responsibility of the nursing staff.
- Majority were interested in further training.



Results: Pre-Education Nursing Staff Survey

Themes

- The percentage of patients identified as requiring assistance with oral care on the ward ranged from 40-100%.
- Steroids, inhalers and seritides were some of the drugs listed as drugs that affect the mouth.
- 67% of nursing staff indicated that there were practical difficulties to performing oral care. Patient related reasons were identified a majority of the time.
- 42% of nursing staff felt that oral care should be performed whenever required. Swabs, sodium bicarbonate, biotene, toothbrush and toothpaste used to perform oral care.
- Bleeding gums, halitosis and mouth blisters listed as signs of oral disease.



Results: Pre- & Post Education Patient Screening using the OHAT¹⁰

Patient demographics

	Pre-education (n=50)	Post-education (n=50)
Sex	47% male; 53% female	28% male; 74% female
Place of residence	89% from home	90% from home
Dependency for ADLs	61% required some assistance	50% required some assistance
LOS at time of screening	45% screened after 2 days	38% screened after 2 & 3 days
Presenting condition	18% presented with a fall	18% presented with a fall



Results: Pre- & Post Education Patient Screening using the OHAT¹⁰

- Comparative statistics used to analyse the OHAT¹⁰ data.
- There were no significant differences on each of the categories of the OHAT¹⁰ which was administered to the cohort of patients on admission.



Results: Education

- Of the 23 staff originally surveyed only 13 completed part one and part two of the education.
- Only 36% of permanently employed nursing staff completed the education.
- 2 nurses who did not complete the survey did the education also.



Results: Post-education Nursing Staff Survey

- The post-education survey was only given to the nurses who completed the education.
- 100% of nurses found the education useful.
- 57% of nursing staff felt the education should be completed on an annual basis.



Discussion

- The literature tells us that good oral hygiene reduces the risk of aspiration pneumonia in the elderly and when nursing staff are educated in oral care the risk of adverse events in the elderly is reduced^{4,5,6}
- The project has found that the nursing staff who completed the education found it useful and over half felt that it would be worthwhile doing the education on an annual basis.
- The number of nurses we were able to educate was less than anticipated, which means we may need to re-consider the type of education provided or the method of delivery.
- The literature supports the use of the OHAT¹⁰ in residential care facilities. This project has shown that the OHAT¹⁰ can be used in an acute setting to assess oral health and maybe a useful outcome measure for future settings. Therefore, there is potential for nursing staff to be trained in using the OHAT¹⁰ to assess the oral health of their patients.



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