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Feasibility of implementing oral health guidelines in residential care settings: views of nursing staff and residential care workers

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ABSTRACT

Purpose: To determine the views of nurses and on the feasibility of implementing current evidence-based guidelines for oral care, examining barriers and facilitators to implementation.
Results: This mixed-methods study involved an online survey of 35 nurses and residential care workers, verified and expanded upon by one focus group of six residential care workers. Results reflected that nurses and residential care workers (a) have little or no training in recommended oral care techniques, and (b) lack access to the equipment and professional supports needed to provide adequate oral care. Basic oral care might be performed less than once per day in some settings and patients with problematic behaviours, dysphagia, or sensitivities associated with poor oral health might be less likely to receive oral care. While lack of time was highlighted as a barrier in the survey findings, focus group members considered that time should not be a barrier to prioritising oral care practices on a daily basis in residential care settings.
Conclusion: There are several important discrepancies between the recommendations made in evidence-based guidelines for oral care and the implementation of such practices in residential care settings. Nursing and residential care staff considered adequate oral care to be feasible if access, funding and training barriers are removed and facilitators enhanced.

1. Background

1.1. Oral health in older people in residential care

Good oral health and hygiene are essential in maintaining good overall health, and factors affecting quality of life (Petersen, 2008). Good oral health contributes to clear speech and communication, improved respiratory health, meeting nutritional needs, and overall sense of wellbeing (Health Canada, 2009; South Australia Dental Service & Consortium Members (SADSCM), 2009), and requires active involvement of nursing staff in oral care provision to each resident (Salamone, Yacoub, Mahoney, & Edward, 2013). Conversely, poor oral health can impair swallowing, increase the risk of ill health, and reduce quality of life (Kuyama, Sun, & Yamamoto, 2010; Ortega et al., 2014; Pace & McCullough, 2010; Terpenning, 2005).

1.1.1. Risk factors for poor oral health

Older people, particularly those with chronic disabling health conditions living in residential care settings, are at risk for poor oral health due to the presence of multiple risk factors (Brady, Furlanetto, Hunter, Lewis, & Milne, 2011; SADSCM, 2009). They may have a range of comorbidities associated with disabling health conditions (e.g., stroke, motor neurone disease, Parkinson's Disease, dementia, cerebral palsy), resulting in the dynamic interaction of multiple causal factors for poor oral health (e.g. dysphagia or difficulty swallowing, poor respiratory health, multiple medications, poor dentition). Further, medications taken by residents may decrease saliva flow, causing xerostomia, and increasing risk of tooth decay (SADSCM, 2009). Dentition is also important to consider in relation to maintenance of good oral health. The number of older persons retaining natural teeth for longer has increased, however remaining teeth are often severely broken down, covered by bridges or crowns, or have large fillings, demanding more extensive care than dentures (Roberts-Thomson & Do, 2007; SADSCM, 2009). According to Roberts-Thomson and Do (2007), 6% of Australians aged 75 years or greater with some natural teeth have moderate to severe gum disease.

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1.1.2. Consequences of poor oral health

Poor oral health is associated with chronic and systemic infection, cardiovascular disease, cerebrovascular disease, bacteraemia, and aspiration pneumonia (SADSCM, 2009; Terpenning, 2005). Poor oral health can also negatively impact general health and quality of life, including: reduced respiratory health, lessened ability to eat, poorer nutritional status, pain, weight loss, bleeding gums, tooth decay or loss, halitosis, negative impacts on appearance, decreased self-esteem, reduced social interaction, and discomfort (Brennan, Singh, Liu, & Spencer, 2010; SADSCM, 2009). Inadequate denture cleaning can result in denture plaque, a dense layer of microorganisms on denture surfaces and consequently, denture stomatitis, an oral mucosa lesion characterised by inflammation and reddening (Gendreau & Loewy, 2011) and a potential cause of aspiration pneumonia (de Souza et al., 2009). Poor oral health and poor oral hygiene practices increase risk for aspiration of infectious or pooled pharyngeal secretions and bacteria (Kuyama et al., 2010) with related serious health consequences.

1.1.3. Being dependent on others for oral care

The high incidence of chronic disabling health conditions in people in residential care setting results in increased risk factors for dysphagia, poor oral health and aspiration pneumonia (Australian Institute of Health and Welfare, 2012). Functional limitations related to impairments associated with chronic disabling health conditions often result in this population requiring high levels of support from others with eating or drinking and daily oral care (Brady et al., 2011). Up to 70.4% of residents in long-term care have a medium to high level of dependence for activities of daily living (AIHW, 2012). Reliance upon others to maintain a clean mouth and presence of dysphagia impacts oral health considerably (Brady et al., 2011). Challa (2006) reported that 29% of American nursing home residents sampled who were dependent on others for activities of daily living had oral health problems, and were 1.5 times more likely to exhibit oral health problems than residents who were independent for oral care. Thus, residents in long-term residential care, especially those with dysphagia who are dependent on others for oral care, are a particularly vulnerable group (Brady et al., 2011).

1.2. Oral health recommendations and practices

There is growing support in the literature for oral hygiene interventions improving oral health in residents with, or at risk of, aspiration pneumonia (Bassim, Gibson, Ward, Paphides, & Denucci, 2008; Pace & McCullough, 2010; SADSCM, 2009; Van der Maarel-Wierink, Vanobbergen, Bronkhorst, Schols, & de Baat, 2013). Recommended interventions include the following: (a) brushing of teeth and oral cavity with toothbrush (b) brushing dentures (c) soaking or disinfecting dentures (d) antimicrobial cleansing of the oral cavity (e) use of toothpaste (f) professional oral care (g) lip and oral cavity moisturising (h) suction and (i) flossing or interdental cleaners. However, recommendations vary across studies and clinical guideline documents. For example, denture cleaning is recommended after each meal by Watando et al. (2004), but only once daily by Carman et al. (2011) and Singapore Ministry of Health (2004). In recognition of the importance of oral care, a range of clinical guidelines have been developed for care staff to guide their practice across several settings. Current recommendations for oral care (e.g. Carman et al., 2011; SADSCM, 2009; Singapore Ministry of Health, 2004) uniformly emphasise the importance of tooth brushing, toothpaste use, brushing dentures, soaking dentures, antimicrobial cleansing of the oral cavity, and professional oral health care. Table 1 summarises practice guidelines for a standard protective oral hygiene regimen, formulated using an amalgamation of existing guidelines and study conclusions or recommendations. While the guidelines are built upon theoretical foundations and a growing body of evidence, there is little in the literature relating to their feasibility of implementation in residential care settings.

Understanding the factors affecting the implementation of oral care from the perspective of nurses and other residential care staff is vital to removing barriers and increasing facilitators to improve oral care for residents in long-term care settings. This information would inform care policies, help guide speech pathologists in their design of recommendations and instructions for residential care staff in dysphagia management, and would be pertinent to the training of care staff in the conduct of oral care. Thus, the aims of the present study were to determine the views and experiences of nurses and care staff in residential care settings in relation to: (a) implementing best practice oral care guidelines with residents of long-term care settings who have chronic disabling health conditions; and (b) the barriers and facilitators to the implementation of common oral care practices included in clinical guidelines.

2. Method

This mixed method study comprised an online survey of nurses and nursing assistants and one focus group of six nursing assistant residential care staff in a long-term residential care setting. The study was ethically approval by the Human Research Ethics Committee of the University of Newcastle, Australia.

2.1. Design and delivery of the online survey

Current best practice guidelines and recommendations regarding oral care in residential care settings were reviewed to determine the range of evidence-based practices relating to oral care, to inform survey questions. The survey was designed to gather respondents' views on these guidelines/recommendations, the feasibility of their implementation in clinical practice, and barriers and facilitators to oral care in long term residential care settings. A link to the survey was posted from the final author's Twitter handle @bronwynhemsley inviting nurses to participate. The survey consisted of 27 questions in six major sections: 1) demographic information and professional experience in relation to oral care, 2) tooth brushing, 3) denture cleaning, 4) oral care products (e.g. mouthwash, toothpaste, suction, flossing), 5) professional oral care and service support, and 6) oral care policies. The survey utilised a combination of multiple-choice, rating of agreement or frequency on a Likert scale, and open-ended questions, with opportunities to comment on categorical responses. The survey was made available to the public online on 12 June 2014, and closed on 30 July 2014. Survey results were analysed descriptively and thematic content analysis of written comments made in response to open-ended questions.

2.2. Conduct of the focus group

The survey findings informed the focus group questions (Krueger & Casey, 2009) which were: (1) 'Tell us about your current role in relation to 'oral care' in this setting and previous settings you have worked'; (2) 'How often is tooth brushing implemented *ideally* and *actually*?' (3) 'What is the usual method for cleaning dentures and how often, *ideally* versus *actually*, for the people you care for? What about denture soaking?' (4) 'What are your views on the use of products – mouthwash, high fluoride toothpaste, suction, and flossing, and usual practice here?' (5) 'How often do people have access to professionals for oral care, and what are your views on this?' (6) 'What are your views on staff training in oral care?' and (7) 'Tell me about any policies in oral care at this setting?' Focus group participants were recruited through the manager of one residential care facility in Australia. The focus group comprised six care workers, most of whom were enrolled nurses, with recent experience providing oral care to residents. The group was moderated by the first and second authors, and held at the residential care facility. The one-hour focus group was audiotaped and videotaped for later verbatim transcription, de-identification, and verification of speaker turns and analysis by the first and final authors. A two-page summary of the