



# ‘‘The Food Here Is Tasteless!’’ Food taste or tasteless food? Chemosensory Loss and the Politics of Under-Nutrition

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Received 17 September 2009; received in revised form 13 March 2010; accepted 26 March 2010

## KEYWORDS

Under-nutrition;  
Chemosensory loss;  
Older people;  
Assessment;  
Person-centred  
treatment strategies

**Summary** A common complaint voiced by older people living in residential care is that the food lacks taste. When older people find food tasteless, the pleasure gained from eating and therefore, their appetite may be compromised, as will their food choices, nutrition, immune systems, functional status and well-being. However, often nurses overlook these symptoms as ‘inevitable and irreversible’ aspects of ageing, which they are not. In fact, many older people experience chemosensory (taste and smell) disorders or loss which means they lose the ability to taste the flavour of food. Commonly overlooked is the fact that chemosensory loss may well be a significant contributing factor to the high level of under-nutrition reported in residential care in Australia.

Our purpose in this article is to explore important issues related to taste and smell dysfunction; the physiology of these sensations; several causes distinct from ageing; and interventions to help older people again enjoy their food with the concomitant advantages to their health and well-being. We also consider the way in which legislation related to Government funding has influenced gerontological nurses’ assessment skills and values, particularly concerning nutrition assessment to the detriment of not only older people living in residential care but also the profession of gerontological nursing. Attention is drawn to the need for nurses to up-date their clinical knowledge, assessment skills and practice including enhancing the flavour of food and the social occasion of dining for older people living in residential care.

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## Introduction

The ‘‘food’’ is a common cause of complaint by older people living in residential care. Rather than dismissing such com-

plaints in the same context as “lost laundry” (an endemic issue which belongs in the “too hard basket”), managers and nurses need to consider the possibility that a number of people living in the facility can no longer enjoy their meals because, for them, food has lost its flavour. Actually, for older people and people living with dementia, a common risk factor for losing interest in food and hence becoming under-nourished is loss of the senses of taste (gustatory) and/or smell (olfactory) (Hummel & Nordin, 2005), that is, “chemosensory” sensation (Wrobel & Leopold, 2004, p. 1131).

Resolving food complaints does not require employing a five-star chef. However, as the following discussion will highlight it does require that Registered Nurses (RNs) understand the pressing need to increase their knowledge base about nutrition, chemosensory physiology, and changes with ageing. They also need to acquire skills in assessment, and if supported by management, develop cost-effective and person-centred approaches to preventing under-nutrition. Nevertheless, achieving goals of this nature requires that health care managers and RNs realise that political barriers concerning Government funding and assessment can be surmounted.

## Background

Under-nutrition<sup>1</sup> in older people is widespread in Australian health care facilities and in the community (Joanna Briggs Institute, 2007; Visvanathan, Penhall, & Chapman, 2004). This situation is not unique to Australia as statistics from developed nations indicate under-nutrition is prevalent in older people in similar situations (Hébuterne, 2007; Leydon & Dahl, 2008; Pirllich et al., 2006; Shipman & Hooten, 2007; Söderhamn, Bachrach-Lindström, & Ek, 2007; Thompson, Kayser-Jones, Stotts, Porter, & Froelicher, 2006).

An example of the breadth of the problem of under-nutrition in residential care was provided from a series of audits in six Queensland facilities wherein Banks, Ash, Bauer, and Gaskill (2007) discovered around 50% of the 839 participants were under-nourished. The mere fact that older people experience such high rates of under-nutrition means that these people are not only robbed of so many of life’s simple pleasures but also, often of life itself (Raynaud-Simon, 2009; Suominen, Sandelin, Soini, & Pitkala, 2009).

Statistics of this magnitude may be related to the hesitancy of Australian residential care providers to spend money enabling nurses to play a meaningful role in the dining experience or contracting nutritional health care professionals (Stevens & Vecchio, 2009). Nonetheless, providers state they require adequate funding to do this and RNs are a scarce resource. These statistics also may be related to the proposal by Omran and Salem (2002) that commonly, medical practitioners are “nutritionally blind in their slowness to recognise under-nutrition” (p. 732). Another plausible explanation may be that a significant number of nurses

consider that symptoms of under-nutrition are a “normal” trajectory of ageing, despite established evidence that this is not the case (Furman, 2006, p. 26). However, these explanations provide only pieces of the puzzle of why so many older people living in care are under-nourished.

Considering statistics of this scale, it is not surprising when under-nutrition in health care is described as “intractable” (Dickinson, Welch, & Ager, 2008, p. 1492), and under-treated (Elia, Zellipour, & Stratton, 2005). Concomitantly, chemosensory loss is infrequently appreciated as a contributing factor to under-nutrition (Doty, 2005) despite research confirming such a correlation (Ritchie, 2002). Yet under-nutrition may result in depression (Hummel & Nordin, 2005) and lowered energy consumption, which in turn may eventually negatively impact on the older person’s functional level (Chubb, Mann, Coleman, & Sibbell, 2006) and quality of life (Hummel & Nordin, 2005). An even worse scenario of events occurs when the older person’s under-nutrition triggers its accompanying suite of events, such as increased risk of falling, fractures, infections, poor wound healing, pressure areas and high on the list, as said, mortality (Raynaud-Simon, 2009).

Several factors proposed by Robbins in 1989 as “the nine d’s of weight loss” in older people are discussed by Hébuterne (2007, p. 34): “dentition, dysgeusia (decrease or distortion of the sense of taste) dysphagia, diarrhoea, disease, depression, dementia, dysfunction and drugs”. Other significant factors also need to be considered such as: the psychological, physical, social and environmental dynamics of dining (Dickinson et al., 2008); respect for a person’s food choices (Evans, Crogan, & Shultz, 2003); awareness of possible changing circadian patterns in food consumption (Young & Greenwood, 2001); adequate staffing levels (Simmons & Schnelle, 2006); appropriate staff education (Roberts & Durnbaugh, 2002); service expertise (Marie-Françoise et al., 2001), and the provision of varied and tasty meals (Speroff, Davis, Dehr, & Larkins, 2005).

Furthermore, despite institutionalisation, food and taste continue to shape cultural norms, the health and well-being of older people and the way in which they live, love and interact with one another. Ideally, nursing practice should ensure mealtimes provide a comfortable and welcoming environment for social gathering and a place where friends come together to meet, and eat food they enjoy, and for which they usually share similar food familiarity and food tradition (Laureati, Pagliarini, & Calcinoni, 2008; Nijs, de Graaf, van Staveren, & de Groote, 2009; Pfeiffer et al., 2005).

Rather than the ‘ideal’, the reality of dining in residential care often is production-line “feeding” (Commonwealth of Australia, 2005, p. 8), accomplished in the shortest space of time and usually undertaken by staff who often lack knowledge about nutrition (Pearson, Fitzgerald, & Nay, 2003). When an older person begins to lose weight, standard practice frequently involves commencing oral supplementation (Kayser-Jones, 2006). Oral supplementation has been described as a potential low-cost “bandaid measure” (Wilson, Hines, Sacre, & Abbey, 2008, p. 4). One of the most common supplements used in Australia is *Ensure*, which Henkin alleges similarly “*is a bandage used to cover up a serious and complicated systemic problem*” currently not (and never) addressed (2008, p. 20).

<sup>1</sup> The term “under-nutrition” is used throughout this discussion as the word ‘malnutrition’ is nebulous, in that it may mean under-nutrition or excessive food intake leading to obesity (Samartin & Chandra, 2001).

In Australia, chemosensory assessment and, in particular olfactory assessment have been reported as ignored or simply assessed qualitatively (Mackay-Sim, Grant, Owen, Chant, & Silburn, 2004). Although chemosensory loss is one aspect only of a myriad of factors which contribute to poor nutrition in older people (Nijs et al., 2006; Welsh, 2005), nevertheless, it is a critical aspect and probably the factor about which nurses possess the least knowledge and the one most in need of urgent redress.

## Physiology of the chemical senses

If RNs are to become skilled in chemosensory assessment and appropriate interventions to minimise the risk of under-nutrition, initially as with any other bodily system, they need knowledge about the system's physiology and changes that may occur with ageing. For instance, taste refers to five qualities – salt, sweet, bitter, sour, and umami – obtained from binding of soluble compounds with the taste receptors, which are found not only on the tongue, but also in other parts of the mouth and throat. "Umami", a Japanese term, is distinct from the other four tastes and translated roughly as a taste of "savory deliciousness" produced by several substances, including the amino acid glutamate (Prescott, 2004, p. 144)—a natural substance found in many foods including meats, fish, and milk, and as monosodium glutamate (MSG). Adding MSG to food thus produces the unique taste of umami that flavours food (Pelletier, 2007; Toyama, Tomoe, Inoue, Sanbe, & Yamamoto, 2008) and may help increase the flavour in food for the under-nourished older person. It is also essential to understand that encouraging older people to chew their food well will lead to the release of volatile chemicals, which as Paturel (2007) explains then travel to the nasopharynx where they activate the olfactory receptors resulting in the sensation of odours.

While the senses of smell and taste involve anatomically different bodily systems, the physiology of taste is similar to the physiology of smell—external messages (tastants) are relayed from the tongue to the brain (albeit via different neural pathways) and interpreted in combination with input from our senses of smell, sight, and touch (Schiffman, 2007). Together with somatosensory (bodily—texture, temperature and touch) and chemesthetic (chemical) sensations from the oral cavity and oropharynx, tastes and retronasal odours are combined to produce flavour perceptions (Lafreniere & Mann, 2009). The importance of the role of odours originating in the mouth in flavour perception explains why people who suffer anosmia (loss of the sense of smell) can taste quite well—but they are unable to experience flavour (Stevenson, Miller, & Thayer, 2008). The integration of these different sources of sensory information allows people to recognise and enjoy (or not) the flavour of the food they are eating and often (re)experience memories and emotions associated with that flavour (Prescott, 2010).

## Physiology: changes with ageing

With normal ageing, there may be an age-related decline in gustatory and olfactory perception which can have a potentially detrimental effect on the quality of life of older people (Goldstein & Lane, 2004). Often perceived taste defect is in

reality an initial defect in olfaction (Leopold, Holbrook, & Noell, 2009) as up to approximately 80% of flavour sensation is created by odour sensations (Wrobel & Leopold, 2004). Therefore, older people who complain of loss of taste also require testing for smell dysfunction (Mann, 2002). Normal changes in the physiology of taste lead to a reduced ability to discriminate sweet, salty, sour and bitter tastes as well as an increased taste threshold (Stanley, Blair, & Beare, 2005). For example, many older people are unable to discriminate salt in soup and will need twice the amount of salt to detect its presence (Sanders, Ayers, & Oakes, 2002). In support, Laureati et al. (2008) established that a considerable number of older people prefer food in which taste and flavour are amplified, as they try to compensate for a reduction in sensory ability with an increase in taste and flavour intensity.

Along with impairment of chemosensory function in ageing, changes in the ability to correctly identify odours may occur, which can influence appetite stimulation and for community-dwelling older people expose them to danger, through for example, the inability to smell smoke, gas and/or food not fit for consumption (Aschenbrenner et al., 2008).

Aside from ageing, an alarming number and diversity of possible causes of chemosensory changes in older people are reported in the literature. For instance, over 250 medications may alter taste or smell (Nolan, 2001)—these include over-the-counter medications such as zinc nasal sprays (Leopold et al., 2009), and at least 30 medical conditions have been identified as potentially causing chemosensory dysfunction (Schiffman & Graham, 2000). In addition, other reported causes range from tobacco use (Seiberling & Conley, 2004), oral and dental health problems (Sheilham & Steele, 2001), xerostomia (dry mouth) (Pederson, Bardow, Jensen, & Nauntofte, 2002), to candidiasis (Boyce & Shone, 2006). More complex causes include respiratory infections and head trauma (Bromley & Doty, 2002), chemotherapy (Steinbach et al., 2009), stroke (Green, McGregor, & King, 2008), and coronary artery bypass surgery (Schiffman, 2007).

The number of medications and diseases in the incomplete list above, which may contribute to chemosensory loss, raises questions as to how many nurses and medical practitioners involved in the care of older people in residential facilities undertake assessment of chemosensory loss, regular medication reviews and other investigations?

## Assessment

Regardless of age, a full physical, social and emotional assessment and detailed life-history should be completed to identify the possibility of chemosensory loss (Boyce & Shone, 2006). Assessment should include taste and smell testing and if chemosensory loss is suspected, referral for haematological and biochemical analysis and imaging studies should be considered (Mann, 2002).

Currently, researchers are investigating the correlation between olfactory dysfunction and dementia (Pardini, Huey, Cavanagh, & Grafman, 2009). Studies involving people with cognitive impairment particularly of the Alzheimer-Type Pathology (ATP) have shown a marked relationship between dementia and olfactory dysfunction (Hickson, 2006; Peters et al., 2003), and between Parkinson's dis-

ease (the second most common neurodegenerative disease (Lafreniere & Mann, 2009) and olfactory deficits (White, 2005). Researchers have established that anosmia is more common in older people with dementia with Lewy bodies and Lewy body variant than in older people with ATP (Williams, Williams, Combrinck, & McShane, 2006). It is important that clinicians are aware of research of this nature as neuroscientists suggest olfactory assessment and detection may be an economical and simple added test in the assessment of early cognitive decline (Kjelvik, Sando, Aasly, Engedal, & White, 2007).

Furthermore, assessment is vital as few older people experiencing chemosensory loss will self-report accurately (Soter et al., 2008) often because they consider it part and parcel of growing “old” or because their loss may be gradual, with a variable degree of decline (Hollis & Henry, 2007) and hence, go unnoticed by the person (Hawkes & Shah, 2005).

Notwithstanding research evidence reported here, in Australia despite the unremitting increase in the number of older people suffering under-nutrition, chemosensory assessment remains within the confines of research laboratories (Mackay-Sim et al., 2004). This situation is unacceptable, because many disorders are curable (National Institute on Deafness & Other Communication Disorders, 2002).

## Assessment methods

Available tests are not difficult to use, inexpensive, and some culturally specific (Wilson et al., 2005; Wrobel & Leopold, 2004). Such tests would provide invaluable assessment information for nurses, which could be used for adapting the care plan to meet the older person’s unique needs as well as specialist referral to elicit the possible cause and subsequent specialist treatment.

For example, Australian psychologists specialising in the chemosensory sciences suggest doing simple smell tests with odour stimuli such as non-sweet (curry paste, crushed garlic, oregano oil) and sweet odours (chocolate sauce, vanilla essence, banana odour, plum odour) (Stevenson et al., 2008). Neurologists similarly suggest several of the above stimuli but also include mints and coffee in the list, as well as liquorice allsorts because the smell of liquorice defies ageing (Hawkes & Shah, 2005). In order to assess olfactory perception, the person should be prevented from seeing the stimuli and then asked if they can smell and name the odour of any of the stimuli. The significance of this question is that older people with early stage ATP retain the ability to perceive but their ability to identify something is impaired (Hawkes & Shah, 2005).

If obtaining specific testing kits is impossible, then staff should consider using an alcohol wipe. The distance from the person’s umbilicus at which they can smell the alcohol correlates with their olfactory ability. If the distance at which they first smell the alcohol is less than 20 cm this suggests the person may have hyposmia (decreased olfactory ability) (Leopold et al., 2009). There are taste test strips available, whole-of-mouth tasting solutions and other more sophisticated methods for taste testing. A simple brief four-question tool for appetite assessment (Simplified Nutritional

Assessment Questionnaire (SNAQ)) developed by Wilson et al. (2005) also might prove most useful to nurses. When a questionnaire is used to supplement specific chemosensory testing, it is important to remember that many older people living with dementia often can answer questions either verbally or nonverbally (body language). As Hawkes and Shah (2005, p. 226) advise, using simple tests is “definitely better than no test at all, being rather similar to testing visual acuity with newspaper headlines”.

## Treatment strategies

Firstly, health care managers and nurses need to engage in shared decision-making with those older people for whom they care. This means asking for their ideas regarding improvement in food flavour and dining services as well as ensuring planned strategies for dining improvement give “voice” to the person receiving care (Collins, 2008). Alone or with their family, the older person also should be fully informed of treatment strategies and in particular, informed consent is required from the person before the provision of diets or food additives (Welsh, 2005).

There are numerous important treatment strategies documented in the research literature; several are specific to the domain of nursing. For example, Gaskill et al. (2008) stress the need for oral health assessment and nursing assistance in helping the person to maintain appropriate oral hygiene. Treatment strategies may require specialist referral and investigation depending on the cause of the chemosensory problem, for example, infections in the mouth may require dental treatment (Ritchie, 2002). Mann (2002) advises that gastric reflux is a common cause of taste dysfunction and may respond to acid pump inhibitors, and that a complete medication review is essential.

The most obvious and practical approach to help older people living with chemosensory loss achieve adequate nutrition is proposed by Vance and Burrage (2006)—that is, adding flavours to food. As flavour loss is a major cause for complaint among older people, and also an area where motivated management and nursing staff can be proactive, this strategy will be addressed in the following section.

## Food enhancement and additives

The first step in maximising taste and smell is to avoid the use of “special diets”, which may “limit aroma, flavour, and calories” (White, 2005, p. 310). Instead, the Australian and New Zealand Society for Geriatric Medicine (2009) supports the research of Hetherington, Cameron, Wallis, and Pirie (2001) who established that an alcoholic beverage given 30 min prior to the main meal acted as an effective appetite stimulant. Other researchers and clinicians advocate the addition of simulated and natural food flavours to nutritious foods to intensify odours as a means of compensating for chemosensory loss (Ali, 2007; Boyce & Shone, 2006; Roberts & Durnbaugh, 2002; Steinbach et al., 2009; Vance & Burrage, 2006; Wismer, 2008; Yen, 2004).

Nevertheless, the latter approach above has been disputed (Essed, van Staveren, Kok, & de Graaf, 2007; Mattes, 2002) and findings critiqued on the basis of the different age groups involved in food enhancement studies, and the

diversity and amount of products and foods used in achieving the reported research outcomes (Kremer, Mojet, & Kroeze, 2007). Furthermore, as previously argued, one strategy alone is inadequate in increasing older people's nutritional intake and experience of pleasurable dining. Older people, like people in any age group, are unique human beings with unique preferences and needs (Kitwood, 1997). Thus, the enjoyment of food and pleasure gained through dining also is a unique, complex and multifactorial experience (Nijs et al., 2009).

Findings from the now dated research by Schiffman (1998) and Schiffman and Warwick (1993) included that flavour enhancement led to improved immunity and functional status and less salt intake for older people. The marinating of animal protein was one method of flavour enhancement noted in these studies. Marinating food is a recommended culinary method of flavour enhancement (Roberts & Durnbaugh, 2002) as this helps tenderise meat and enrich its flavour.

Mathey, Siebelink, de Graff, and van Staveren (2001) used MSG as a flavour enhancer in their research and found those older people in the intervention group gained weight. More recently, enhancement of the enjoyment of MSG flavoured foods was reported in a study by Yeomans, Gould, Mobini, and Prescott (2008). What needs to be stressed here is that the sodium intake of MSG provides less sodium than ordinary table salt, weight for weight (Schiffman & Graham, 2000). Moreover, it can be used therapeutically in low dose (0.08%) as dosage above this amount does not lead to increased palatability (Beyreuther et al., 2007). In regard to the addition of MSG, Luscombe-Marsh, Smeets, and Westerterp-Plantenga (2009), like several other chemosensory researchers (e.g., Prescott, 2004; Reeds, Burrin, Stoll, & Jahoor, 2000), cautiously propose that a link may exist between MSG, increased protein intake and increased energy. Consequently, for those who argue against the use of MSG, it must be remembered that a balance needs to be maintained between the addition of MSG and the positive hedonic responses reported by older people related to food containing MSG, as well as the potential for MSG to regulate protein intake.

There does not appear to be more recent research to confidently support or refute the findings of Schiffman (1998) and Schiffman and Warwick (1993) detailed above, concerning the influence of flavour enhancement on immune status. However, a study by Langkamp-Henken et al. (2006) provided statistical evidence that the addition of a special nutrient formula enhanced the immune function of older people, as measured by increased influenza vaccine response and lymphocyte activation, less fever incidence, and fewer antibiotic prescriptions. In a more recent, but quite small study by Toyama et al. (2008) the previously mentioned Schiffman (1998) and Schiffman and Warwick (1993) studies were cautiously supported by the authors who suggested a positive relationship between the effect of flavour enhancement with MSG and the older hospitalised person's quality of life, infection prevention and improved immune function. Clearly, further research using larger samples is needed in this area.

In addition to the above studies, using low doses of the probiotic *Bifidobacterium lactis* HN019, Gill, Rutherford, Cross, and Gopal (2001) found that it was "a safe dietary

supplement for enhancing innate cellular immune function and combating some of the deleterious effects of immunosenescence" (p. 838). Another probiotic *Lactobacillus johnsonii* La1 was reported as playing a role in suppressing infections through improvement of nutritional and immunological status in older people (Fukushima et al., 2007). In addition, the increased saliva production and functional level that were described in several of these studies may act as a trigger for frequent snacking between meals, which has been shown in later studies to increase nutritional status in older people (Silver, 2009; Zizza, Tayie, & Lino, 2007).

As well, flavour enhancers that are natural and non-allergenic, and to the person's liking, may aid in enjoyment of food tastes (Schiffman et al., 2007). Flavour enhancers related to the life-long preferences of older people also need to be considered (e.g., pepper and salt, soy, tomato and Worcestershire sauce). Frequently clinicians forget that many people add flavour of one kind or another to their food when eating at home or in a restaurant. It would be expected that such preferences and behaviour would not change simply because a person moves from their home to a residential facility (Collins, 2008). The intensification of food flavours appears a logical and worthwhile approach, remembering that not all older people prefer intense flavours.

## The political "catch-22"

The Australian Government guideline "NATFRAME"<sup>2</sup> includes two recommended nutritional 'assessment' tools: the "Resident's Nutrition Data Card" (Bartl & Bunney, 2004) and the "Mini-Nutritional Assessment (MNA®)" (Guigoz, 2006). However, "[n]o single measurement... has emerged as a 'gold-standard' in assessing nutritional status" (Gaskill et al., 2008, p. 189). Hence, the purpose of using these tools is as a "first-line" strategy to assess nutritional risk as part of a *comprehensive* health and nutrition assessment (Guigoz, Lauque, & Vellas, 2002, p. 738). Moreover, these tools do not incorporate assessment of chemosensory dysfunction or loss.

Nevertheless, numerous gerontological nurses in Australia align all assessment and documentation with NATFRAME to suit Government auditors, and this includes nutritional assessment. One reason is the Government audits specific mandatory nursing assessments for funding purposes while accreditation teams may scrutinise all documentation as they see fit. The reason for such an alignment is understandable in that many health care managers and gerontological nurses fear financial and accreditation penalties if they diverge from using standardised Government assessment tools, whether they are mandatory or not. However, the danger of such an alignment is that a significant number of gerontological nurses fail to understand that the

<sup>2</sup> NATFRAME is a set of assessment, care-planning and documentation guidelines prepared by the Department of Health and Ageing. Assessment tools listed are portrayed as evidence-based and best-practice and most are described as validated by research. Several tools listed in NATFRAME are mandatory for funding purposes while others are suggested as worthy for use in assessment (Department of Health and Ageing, 2005).

majority of tools listed in NATFRAME are scales/screening tools not holistic assessments. To further compound the situation, the Government provides neither financial reimbursement for chemosensory assessment and strategies to prevent under-nutrition nor the contracting of dietitians. Without reimbursement, there is little financial incentive for providers to ensure holistic nutritional assessment, including chemosensory assessment.

In reality, a "catch-22" situation occurs when substantial nursing time is devoted to the cascade of events caused by the catalyst of chemosensory dysfunction. Consequently, very few nurses stop to think about the possible relationship between the well-being of those older people entrusted to their care, the high prevalence of under-nutrition in these people and the possibility of chemosensory dysfunction. This is not surprising as there are no specific standards or requirements regarding nutrition or chemosensory education addressed during pre-registration nurse education in Australia (Schaller & James, 2005).

The irony is that Government policy unwittingly contributes to increased expenditure and ill-being for older people which are directly related to the fiscal and human cost of under-nutrition. Whereas if nurses sought education in nutrition, chemosensory loss, assessment and treatment strategies, and managers supported such approaches, nurses would be in a position to prevent such a cascade of events through prevention and treatment of under-nutrition and as a consequence, decrease needless expenditure and increase the health and well-being of a significant number of older people.

Paradoxically, nursing assessment of sensory loss including taste and smell are part of the mandatory Government accreditation guidelines. Considering the high level of under-nutrition in Australian residential care, the poor to moderate level of nursing nutritional knowledge (Schaller & James, 2005) and chemosensory knowledge, and the absence of chemosensory assessment tools, it is curious that most facilities are fully accredited.

## Legislation versus professional standards

The nursing profession is governed by its own professional standards, and these include providing ethical, contemporary evidence-based assessment and care (Australian Nursing & Midwifery Council, 2002, 2006). A significant number of tools listed in NATFRAME range from more than ten years to some nearly forty years old. It is difficult therefore to grasp how several of these outdated tools could be described as assessment methods based on current evidence and best-practice when in the last forty years considerable research has been undertaken which has resulted in more accurate and person-centred holistic assessment.

For over two decades the Government has funded (and continues to fund) each residential care facility in Australia according to the facility's nursing documentation gathered from nursing assessments which must be undertaken according to specific and mandatory Government guidelines. In doing so, the values held by gerontological nurses have been influenced through the imposition of "politically mediated financial values" (Venturato, Kellett, & Windsor, 2006,

p. 330). For this reason, although clinical assessment is the focal point of skilled nursing practice, and central to the delivery of quality nursing care, the art of assessment in Australia is now almost non-existent (Kelleher, West, & Fisher, 2007). Subsequently, changing practice through encouraging nurses to use only ACFI *mandatory* assessments while concomitantly researching and implementing alternative assessments that are contemporary and evidence-based (particularly chemosensory assessment), after decades of what De Bellis (2006) describes as political "repression" would not be an easy journey (2006, p. 81). However, "if nursing is to survive as a profession and, more importantly, if (older people) are to receive quality care based on the best evidence, then it is a journey we all have to take" (Tonuma & Winbolt, 2000, p. 217). It is a journey long overdue.

## Conclusion

The research cited in this article highlights the extent of under-nutrition in residential care and provides evidence that this need not be the case if nurses increased their knowledge base about nutrition and chemosensory loss and complemented mandatory Government assessments with contemporary assessments. Additionally, further clinically based nursing research and education are needed in the areas of chemosensory dysfunction and preventing under-nutrition, as it appears that a significant hiatus exists between specialist medical and dietetic knowledge of chemosensory function and gerontological nursing practice (and general-medical practice).

Though numerous practitioners may protest that "we don't have the time", person-centred assessment and early intervention as considered throughout this discussion would save considerable nursing time and energy—time and energy currently wasted trying to stem the flow of potentially life-threatening events as a result of under-nutrition in older people.

Contemporary practice could begin with the simple strategy wherein managers and RNs regularly take turns asking permission of people living in the facility if they could dine with them. This means eating the same meal as everybody else in the dining room (including pureed meals). Such a strategy would provide significant opportunities for health care managers and nursing staff to experience the quality of the physical, social and environmental occasion of dining (Roberts & Durnbaugh, 2002). If staff and management found the meal tasty, they would need to look carefully at how many older people around them appeared not to find the food tasty or did not eat all their meal, and importantly, how many of these people were losing weight. On the other hand, if staff and management found the food tasteless, they would need to look carefully at the standard of the catering services. Better still, they may need to consider all possibilities!

## Conflict of interest

There was no conflict of interest in relation to the preparation of this article.

## Acknowledgement

Our thanks to Dr. John Prescott, Associate Professor in Psychology, University of Newcastle, NSW, Editor, Food Quality and Preference, for his advice and support in the preparation of this paper.

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