

# A qualitative study of oral health knowledge and attitudes among staff caring for older people in Dunedin long-term care facilities

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## SUMMARY

Over the next few decades, the number and proportion of older New Zealanders will increase, and many will retain their natural teeth. Many older people in care will be dependent on caregivers for their oral health care. The purpose of this qualitative study was to investigate the dental knowledge and attitudes of staff caring for older people in Dunedin long-term care facilities. In-depth, semi-structured interviews with 20 participants from three facilities were recorded on audiotape and subsequently transcribed. The transcripts were analysed to identify themes expressed by the participants. Some of the staff reported poor oral health, and many were irregular dental attenders. Interviewees had a reasonable basic knowledge of dental caries, but were uninformed on many other dental issues, such as the benefits of fluoride and the effects of medication on oral health. All understood that oral health could influence general health. The staff had received very little education about oral health and related issues in their training. There is a need to improve the oral health care knowledge of long-term care facility staff. Incorporation of oral health care into in-service and formal training programmes would be valuable.

## INTRODUCTION

Over the next few decades, the number and proportion of older New Zealanders will rise significantly, and many people in this older group will keep their own teeth (Thomson, 1997; Cautley et al, 1997). Many of these individuals will have previously received complex restorative care, resulting in substantial ongoing dental maintenance requirements. The day-to-day care of those natural teeth will be challenging for many, with effective oral hygiene made more difficult by prostheses, open gingival embrasures, exposed root surfaces, malposition and over-eruption of teeth, and a salivary flow reduced by medications (Knabe and Kram, 1997). Impaired vision and reduced manual dexterity can further complicate daily self-care. Longitudinal studies of older people demonstrate that the caries rate among older people is comparable to that of adolescents (Thomson, in press), and that these individuals have higher rates of many other oral pathological conditions, including periodontal diseases (MacEntee and Scully, 1988). Oral diseases affecting natural teeth can be particularly difficult to treat in very old and frail individuals (Wardh et al, 2002). These factors have implications in terms of the complexity of dental care required by older people and the level of training required by personnel who care for these individuals.

Older people who live in long-term care (LTC) facilities have poorer oral health than their community-dwelling counterparts (Vigild, 1988; Nordenram and Bohlin, 1985). Not only do LTC facility residents make less use of dental services after admission than before (which may result in a gradual deterioration of their oral health) (Vigild, 1988), they have poorer oral hygiene (Frenkel et al, 2000; Merelie and Heyman, 1992; Ekelund, 1988), and many seek treatment only when a specific problem arises (Grabowski and Bertram, 1975; Rise and Heloe, 1978; Kiyak, 1984; Wilson et al, 1987; Ettinger et

al, 1988). Edentulous residents often have dentures that are inadequately cleaned, harbouring extensive plaque and calculus deposits (Thomson et al, 1992), while dentate individuals frequently have high levels of plaque, dental caries, and periodontal disease (Thomson et al, 1991). Residents of LTC facilities are also likely to undergo dietary changes upon entry into care, which may impact on oral health. A report of two epidemiological studies of older people in Norwegian LTC facilities conducted in 1980 and 1993 observed that, because of the higher proportion of dentate residents in 1993, the normative need for dental intervention was actually higher than it had been in 1980 (Jokstad et al, 1996). Oral health was poor, with heavy plaque accumulation and associated gingivitis, and the prevalence of caries was high. This was attributed, in part, to a lack of oral health knowledge among caregiving staff. Although oral diseases represent an infection risk to their charges, the oral health care knowledge of nursing staff is frequently found to be lacking, perhaps due to the fact that oral health care is often a neglected area with low priority in nursing (Wardh et al, 2002).

Given that many residents of LTC facilities are dependent on caregivers for their day-to-day oral care needs, the oral health knowledge and attitudes of those carers are likely to be key determinants of residents' oral health. The New Zealand National Health Committee's 1997 report on preventive dental strategies for older populations (Cautley et al, 1997) highlighted improving dental awareness among carers for older people living in LTC facilities as a key health-promoting measure. Although no information has been published (to date) on carers' oral health knowledge and attitudes in New Zealand, there are a number of reports from overseas studies.

An English study used qualitative research to explore carers' views of oral care for people with disabilities in London. In general, carers believed that oral care was "common sense", and that mouth care was a task carried out automatically without really thinking about it. Oral care was seen as helping social acceptance and self esteem, but had to be managed sensitively so that residents could maintain their independence. Factors inhibiting carers' ability to provide oral care were time constraints, the low priority given to oral care, a lack of appropriate training, and a lack of understanding of the aetiology of dental diseases (Weeks and Fiske, 1994). These findings are at variance with those of an earlier qualitative study conducted with nurses working with older people in Birmingham (Rak and Warren, 1990), which found that carers answered practical questions well and had a good general knowledge of mouth care, but lacked specific knowledge of dental disease. They were particularly good on the theory of denture hygiene. In contrast, a study conducted in Newcastle-upon-Tyne found that carers did not clean dentures any more effectively than residents did (Merelie and Heyman, 1992). A recent Swedish study reported that caregivers considered it was more difficult to assist residents with natural teeth than those with partial or full dentures. The most frequently reported reason for caregivers not assisting with oral care was residents not wanting to be helped, or being able to do it themselves anyway (Wardh et al, 1997).



While this small number of overseas studies has found that the dental knowledge of caregivers for older people generally needs to be improved, they may not necessarily apply in the New Zealand context. Given the National Health Committee's recommendation (Cautley et al, 1997), and the demographic imperative posed by an ageing dentate population, there is a need to examine the issue in New Zealand in order to determine the nature and extent of any deficiencies that may exist.

## METHODS

The qualitative research method was considered to be most appropriate for this study because of the need to understand the situation from the carers' own frame of reference, and to allow the participants to enlarge upon the areas that they felt were important (Blinkhorn et al, 1989). The in-depth interview approach was chosen over other qualitative data collection techniques appropriate for this research (such as focus groups) so that participants would not be influenced by the direct presence of their peers (Rice and Ezzy, 2000). Ethical approval for the study was obtained from the University of Otago Ethics Committee. Interviews were conducted with individuals involved at three levels of the care-giving process in Dunedin long-term care facilities. These personnel included 15 caregivers, 2 registered nurses, and 1 nursing manager and 2 LTC facility managers. For the purposes of this study, the term "caregiver" is used to refer to LTC facility staff without nursing qualifications who are employed to attend to the day-to-day personal care of residents.

The managers of the two LTC facilities were contacted and permission obtained to approach staff for volunteers. Once potential participants had been told about the research, information sheets and consent forms were left with them, and contact details for those willing to take part were obtained later from nursing home management.

Interviews were conducted by one researcher (VMcK) at each long-term care facility. Aside from the collection of basic demographic information, the interview explored the staff members' self-reported dental health, level of dental care knowledge, attitudes to oral health care, and the oral hygiene assistance they gave to residents. Each interview was recorded on audiotape and transcribed as soon as possible after the interview. Analysis involved reading through the transcripts several times and identifying patterns and themes expressed by the participants. The interview transcripts were scrutinised by a second researcher (WMT) to maximise the accuracy of interpretation.

## RESULTS

Twenty staff members from three Dunedin long-term care facilities were interviewed. Two of the facilities provided rest-home and hospital care (including specialised dementia care units), while the third provided rest-home care only. The interviewees comprised 15 caregivers, 2 registered nurses, 1 nursing manager and 2 LTC facility managers.

### Sociodemographic characteristics

All respondents but one were female, most likely reflecting the female dominance of that part of the health sector. They ranged in age from 26 to 64, but the majority (17) were in their forties or fifties. All described themselves as European New Zealanders. Eight of the fifteen caregivers had either completed or were studying for the National Certificate in Support of the Older Person, while two had done an earlier rest home certificate. One caregiver had previously trained as an enrolled nurse; another was a student nurse at the time of the study, and

one had previously worked as a dental therapist. Two of the caregivers held no nursing or caring qualification. The registered nurses and managers all held nursing qualifications.

### Participants' oral health

The three managers were fully dentate, while each of the registered nurses was partially dentate and had a partial denture (although one was no longer worn). Fourteen of the caregivers had their own teeth; the other wore full upper and lower dentures. Two wore a full upper denture (one in combination with a lower partial denture). Another caregiver wore a partial plate, one was getting a partial denture made at the time and one reported that she had a partial plate but no longer wore it. Most respondents felt that they had good oral health; a few said they had become more conscious of looking after their teeth in recent years. While some staff said that they were keen to keep their teeth, one wanted her remaining teeth out. Four caregivers mentioned that they had a fear of dentists.

All dentate or partially dentate respondents cleaned their teeth with toothpaste and toothbrush. Eighteen brushed their teeth at least twice daily on average while three brushed less frequently. Mouthwashes or electric toothbrushes were rarely used. Half of the carers cleaned interdentally, but the regularity of that practice varied widely. Dentures were reportedly cleaned with toothpaste and/or soaked in dilute bleach or Steradent.

The majority of participants had visited the dentist in the previous year, but almost half of them had visited because of a dental problem. Eleven reported that they attend the dentist regularly for check-ups, but the frequency varied from 6-monthly to every 3 years. Reasons given for not attending regularly included cost and a fear of dentists. The respondents with nursing qualifications were more regular dental attenders. Two of the managers commented that they had the means for regular dental care, but felt that may not be so for the less qualified caregivers. "I gather that people like myself on a regular wage can go, but I don't think many of my carers would go regularly to a dentist...I don't think it would be high on their priority list...low wages, part-time work, lower socio-economic group, I would imagine" and "I'm probably a privileged white woman, so I'm very lucky to have good dental health, but that probably isn't the case in less privileged sectors".

### Oral health knowledge

Most respondents thought poor dental hygiene caused tooth decay. Many also attributed it to sugary foods, and food being caught in teeth. Other factors mentioned included poor nutrition, lack of awareness of correct cleaning techniques, lack of fluoride, and poor medical status. Only one respondent mentioned bacteria as playing a part in causing tooth decay. Sixteen of the interviewees thought that proper cleaning would prevent tooth decay ("I assume that's why we clean our teeth, to prevent decay, to prevent build-up of stuff on your teeth"). Some thought seeing a dentist regularly and having a good diet would also help. "Cut down on sugary food. But with the older residents, they really go for the sweets, so it's a bit hard on them." Other reported methods of preventing decay included flossing, chewing gum, mouthwash, fluoride and saliva stimulation.

Several respondents thought that the consequences of tooth decay included toothache: "If you're not going to look after your teeth you're going to end up with horrific toothache" and hence feeling miserable, losing teeth, and having to get dentures. Dentures were viewed by most as very undesirable, but a few expected to have them in the future. Some respondents thought tooth decay could lead to ill-health through infections or malnourishment. One respondent



commented on the social consequences of caries. Periodontal disease was mentioned as a possible consequence of dental decay by two respondents; one thought that the infection could also travel to the heart; another mentioned hypersensitivity to hot and cold, and one commented that tooth decay would mean "having to spend a huge amount of money at the dentist".

Most respondents said that gum disease could be recognised by the presence of bleeding gums, tenderness, redness or swelling. "I would look for redness, swelling, smell, pain. That's if I look. That's the reality. Well, I don't think we're very good at it." While many did not know what caused gum disease, some thought that poor oral hygiene caused it, with a few referring to plaque and bacteria, lack of stimulation of gingival tissues, food left in the mouth, a lack of vitamins, and not cleaning between teeth. Smoking and increasing age were each mentioned by one respondent. The consequences of gum disease were poorly understood. Twelve individuals thought that it might lead to tooth loss, and some believed it could lead to a decline in general health. One respondent (a registered nurse) mentioned subacute bacterial endocarditis.

When asked about how they thought medication could affect a person's oral health, some respondents thought that the retention of sticky or sugary medication in the mouth could produce tooth decay. Others mentioned staining of teeth with drugs such as iron tablets, tetracycline or antibiotics. "In [individuals with] dementia, it could affect it quite a bit because you never know whether they're going to swallow the pills whole or chew them. If you get something like iron that would really discolour their teeth if they start chewing on that." Other respondents commented on drugs such as blood pressure tablets believed to cause receding gums, and medication altering the acidity of saliva. One manager commented that "maybe certain medication reduces the amount of saliva so ... maybe the anticholinergic drugs could dry up your saliva so therefore your mouth is dry and more prone to getting infections and those sorts of things". Some also commented that they thought residents' polypharmacy could have oral side-effects.

All respondents thought that poor oral health could affect general health. Many commented that it could affect a person's mood or sense of well-being: "Just because they're old, they're no different from you and I...if we get toothache we get grumpy and it's exactly the same". Many also believed that someone with oral disease could stop eating, thus leading to weight loss and malnourishment, especially in frail residents. Some thought that an oral infection could be swallowed and have systemic effects: "I guess if you've got an infection or anything in your mouth, you're swallowing it straight down. It's going to your stomach, so you're upsetting the whole system more rapidly than anywhere else". One manager commented "I understand mucous membranes permeate to the rest of the system very fast. You give sublingual anginine and that will go through, so I guess if there's a toxic bacteria in the mouth, that can also be a problem for the rest of the body system".

### Day-to-day oral care for residents

Carers reported that they carried out oral care for residents twice a day: in the morning when they get their residents up: "I tend to the oral care at the same time you wash the face and things like that. Just like you would for yourself", and also before they go to bed. A few carers said that oral care was sometimes done during the day "if they vomit" or if they are "inclined to keep getting food in their mouth". Oral care was often done two-hourly when a resident was terminally ill, in which case the mouth was swabbed out to keep it moist. One of the managers said that "the expectation is that everyone has their teeth done at least twice a day...the policies are in place...but



I'm not sure that it always happens". Another manager commented "it says in our policy that it should be done three times, after each meal, but honestly it happens twice a day".

The amount of assistance required by residents with their oral care was related to their degree of dependency. In the rest home areas, most performed their own oral hygiene, assisted by carers when needed. One carer commented "we only do the residents we have to do, because a lot of the others are quite capable of cleaning their own teeth", adding that "we like to keep them as independent as possible". Assistance was required by more of the residents in the dementia and Alzheimer's units, and by many in the hospital-level care units. For those individuals, dentures were routinely cleaned at night with toothpaste and either soaked overnight in a cleaning solution or given back to the resident, depending on the individual's preference. Dentate people with dementia had their teeth cleaned by carers.

Half of the interviewees thought brushing teeth twice daily was adequate, while the remainder thought that, ideally, it should be done after every meal. Some commented that routinely brushing residents' teeth after every meal was impracticable ("there's not the time to do after lunch cleaning in this unit. There's not the staff, or the time, it's just too busy...to start going to people's rooms...and cleaning their teeth, we couldn't do it). Some also commented that they themselves didn't brush three times daily ("that's not really reality, I don't brush mine three times a day...I think doing morning and night you're doing pretty well").

Most carers agreed that dentures were easier to clean than a resident's natural teeth ("you can actually take them out and wash them properly") although they sometimes had trouble getting the dentures out of the mouth, particularly with residents who had dementia. Some carers found it awkward to clean residents' natural teeth ("it's a very awkward thing to do for someone else because you can't actually see how far [the] brush is going back or how far back you're cleaning"), and one commented that cleaning someone else's teeth is "a lot harder than doing your own...you don't quite know if you're brushing hard enough, or too hard...it's really quite difficult, especially when they can't let you know themselves." Those working with residents who had dementia or Alzheimer's disease reported that it was difficult to carry out oral hygiene at times. One carer reported that some residents would clamp their mouths shut, shake their head from side to side, or try to take the toothbrush from the carer. Some reported that careful explanation beforehand would often assist ("I don't know if I'd like someone cleaning my teeth you know. So I guess it's understandable when some of them are a bit reluctant to, you know, have someone else cleaning their teeth"; "I would imagine it would be quite scary for older people having someone stuffing something in their mouth to brush"). Other problems reported were those of residents being unable to rinse and spit properly (particularly following strokes), and bleeding gums.

On occasion, oral hygiene care was not done. One interviewee attributed it to the attitudes of some staff ("there are a few carers that are a bit slap-happy and just don't worry about it"), while another mentioned the time factor ("it's something else that you have to do, and it would be very easy not to do it"). Some pointed out that the first indication of an oral problem was when a resident had stopped eating, as some residents were unable to tell them if there was a problem ("You're not going to know sometimes if they have toothache because they're not able to tell you").

### Past training in oral health care

Generally, participants could not recall having had much oral care training (except for the former dental therapist). It

was considered by some to be a "basic act of daily living"; as such, it was "common sense": "Cleaning your teeth is a natural thing that you just do it yourself at home, as a person for your own hygiene, and I think you just bring it to work". Those with nursing qualifications reported having received training in the daily oral care of people who were confined to bed or terminally ill, and two remembered covering the basic anatomy of the teeth and gums during their training.

Respondents who had taken a Polytechnic caregivers' course had covered some oral care, although the emphasis was on denture care. One carer described the oral hygiene content of the course as "basic knowledge that you really know already anyway....rinse them, brush them, rinse them, give them back." There was no "hands-on" training. New carers were given an orientation package with information on all care policies, and some reported that learning about performing oral care for residents was largely informal: "You're never actually really shown how to do things or what to do. It's all just what you've picked up through the years". "It's something you sort of learn, get thrown into when you become a caregiver", "when I was orientated...the other carer showed me how to do it then." One manager said "the expectation is that we would look after the residents' teeth the same way we would look after our own. But of course that's making the assumption that everyone really looks after their teeth, and I don't know that we can rightfully assume that".

The managers all agreed that there could be a greater focus on oral care. One suggested that having a regular visiting dentist would raise awareness. While the homes had the regular services of physiotherapists, doctors and podiatrists, no regular dental service was provided. There was also a perceived problem with the residents who were able to carry out their own oral care: "At this level, at rest home level, a lot of our people are more independent anyway, so we don't pick things up unless they tell us".

Those who cared for residents with dementia or Alzheimer's disease felt that some training in daily oral care would be beneficial. One manager asked "do dentists know any more about how to treat people with dementia?" Some interviewees felt that their training lacked specific information on the nature and signs of dental diseases affecting older people. "I wouldn't have a clue whether there are diseases of the elderly that they can get in their gums or their teeth, I have no idea. So I suppose that would be quite helpful to know." One carer reported that her training had included what a healthy mouth should look like, and that "if you saw some white spots and that sort of thing, or mucus and that sort of thing, that you really thought shouldn't be in the mouth, to notify someone".

One of the managers felt that gum care was an issue often neglected in training. "I doubt very much whether our carers would even look at the gum to see if there are any red spots or anything... we mostly pick that up when somebody's not eating or doesn't want to eat because their teeth are sore."

### Methods of raising carers' awareness of oral health

When asked what they thought would be the best way to raise carers' awareness of oral health, most thought that in-service training and the incorporation of oral health care into formal training courses would be helpful. The idea of an educational videotape was viewed favourably ("if we had a video, you see, then we could watch it in a spare moment like this now....or else they could take it home and watch it"). However, it was pointed out that such a resource could not be used in isolation: "you need someone to go through it with you...somebody that's trained in that field because you could look at something, but if you weren't familiar... you're not going to be any better off really are you?" The idea of a pamphlet was



viewed less favourably. One of the managers suggested that "literacy levels are compromised with a lot of carers", and felt that a videotape could be used more effectively at an in-service education session. One carer felt that any resource would only be useful "if people are interested in looking at it, and people don't tend to do that unless they have to".

## DISCUSSION

Qualitative research is relatively new to dentistry. While the more traditional quantitative epidemiological studies ("surveys") have the advantage of rigorous, standardised measurement and (often) a degree of generalisability to the broader population, they require a certain amount of predetermination of the problem to be investigated, so that the appropriate questions can be asked. Thus, the researcher's own view of the situation inevitably intrudes. By contrast, the qualitative approach enables better understanding of the setting which is being investigated, without encroachment by the researcher's preconceived ideas. The attraction of the qualitative method for this study was its potential to yield a great deal of rich information while at the same time allowing the participants to enlarge upon the areas that they felt were most important (Blinkhorn et al, 1989), and without having them constrained by a formal questionnaire and closed questions. Such an approach brings with it certain problems, most notably in analysing the data (which becomes a very intensive process), and in minimising the degree of researcher subjectivity which occurs. The latter was managed in the current study by having the two researchers independently scrutinise the raw data. The issue of generalisability needs to be addressed: we would be the last to claim any degree of representativeness for the sample which was interviewed in this study; the interviewees' status as volunteers effectively quashes that. However, generalisability is not the crux of the matter in this piece of qualitative research; rather, the aim is to describe and understand the processes involved in the phenomenon (that is, the day-to-day care of older people in LTC facilities) rather than its distribution, and the aim is to select information-rich cases for studying in depth (Rice and Ezzy, 2000). The participants' volunteer status is likely to have contributed positively to this study's data collection because they would have been more willing to offer information.

These considerations notwithstanding, that all but one of the interviewees were female is likely to be a fair reflection of the workforce profile in LTC facilities. Similarly, their dental status was an interesting microcosm of the world at large, with the managers being fully dentate, the other registered nurses partially so, and the only edentulous interviewee being a caregiver. Some of the carers felt that they had poor oral health; many had undergone a lot of dental work, and some expressed feelings of fear or anger related to dental professionals. A large proportion of LTC facility staff were themselves irregular dental attenders, going only when they experienced a dental problem. Having caregivers with poor oral health, self-care and oral health-care utilisation practices is likely to be a substantial barrier to achieving excellence in the day-to-day oral health care of dependent residents. If an individual does not consider oral health care to be a personal priority, he or she is unlikely to see it as a priority for those in his/her care.

Generally, the caregivers' knowledge of the causes and consequences of dental caries was adequate, although there was little mention of the topical effects and benefits of fluoride toothpaste on dental caries, and their understanding of the causes and signs of periodontal disease was sketchy at best. Medication and dry mouth were mentioned by only one participant (a manager). All interviewees were aware that oral health could affect a person's general health, and their understanding of this issue was generally sound.

The caregivers had received very little coverage of oral health and related issues in their training. Oral care was regarded as "common sense", but most agreed that there should be a greater focus on oral health care training, particularly for those working with more dependent residents. Some carers had received some training through caregivers' courses, but it was very much orientated towards denture hygiene, with little emphasis on care for residents with remaining natural teeth. Interdental cleaning aids were not reported to be used in any of the LTC facilities.

It was noted that although policies and protocols were in place to ensure that residents did receive oral care at least twice daily, this did not always happen. Time constraints and the attitudes of some carers were perceived barriers to this practice. There was an opinion that the carers knew what was required but did not have the time or practical training to perform oral hygiene tasks; "I'd say it's very much a token gesture". It was generally considered that rest home residents (unlike those from hospital or dementia units) were capable of cleaning their own teeth, and were not followed up unless there was a problem. Dental hygiene appeared to be viewed by some more as almost a grooming issue than a health issue, somewhat akin to "brushing their hair".

Caregivers found helping residents with natural teeth to be far more challenging than those wearing dentures. The task was also perceived to be more difficult when performed for residents in dementia- and hospital-level care units. LTC facility staff were generally confident in their ability to recognise gross dental caries and some soft tissue conditions, but their responses during the interviews tended to focus on 'thrush' more than periodontal disease.

Nursing staff appeared to find it difficult to arrange suitable referral for residents who did have oral problems; the doctor was usually the first port-of-call. Perceived barriers to receiving professional dental care for the residents included lack of mobility of individuals ("it's physically too difficult for them to get in to the dentist"), and dentists ("that's one of the issues, how mobile they can be with their bits and pieces") and the cost of receiving care. Some respondents suggested that it would be beneficial to have a dentist or hygienist visiting the facility on a regular basis to perform check-ups for residents and give "education sessions". "We have hairdressers for their hair, and we have a podiatrist for their feet, and we have medical care and all that, but we don't have a service for, a regular service for checking residents' teeth, and it's probably just as important."

Given the likelihood that a greater proportion of the LTC facilities' future residents will be dentate (Thomson, 1997), there is a need to explore ways of improving carers' oral health awareness and practice. There was support among nursing staff for the concept of a videotaped training resource, and this could be used at two levels:

- (i) through the in-service training programmes carried out within each facility, preferably in co-ordination with local dental experts who could assist with interpretation and advice; and
- (ii) through the formal educational pathway for carers (the National Certificate in Support of the Older Person), offered by local polytechnics.

The ultimate aim of such a resource would be to improve oral health awareness and day-to-day oral health care practice among those who care for older people, and would be consistent with the recommendation made in the National Health Committee's 1997 report (Cautley et al, 1997). A video-tape has been produced by the New Zealand Dental Association since this study, and has been distributed to both formal training courses for carers and to LTC facilities themselves. To date its impact has not been evaluated.



## RECOMMENDATIONS

- 1) Nursing curricula should include programmes (delivered by dental professionals) to improve oral health care knowledge and skills.
- 2) Formal training programmes for caregiving staff (such as the National Certificate in Support of the Older Person) should include more *practical* teaching about the delivery of daily oral health care for residents of LTC facilities, including those who are dentate.
- 3) Procedures should be put in place to ensure that LTC facility guidelines regarding daily oral hygiene for residents are followed by caregiving staff. Oral health care must be integrated into the general medical care of residents. There should be universal standards to be followed by all LTC facilities, and auditing systems put in place.
- 4) The dental profession (including hospital dental departments and general dental practitioners) should work in collaboration with LTC facilities to provide support for caregivers in the delivery of daily oral care, as well as to improve access to professional dental care (including routine oral examinations) where indicated.
- 5) The developed video-tape resource should continue to be distributed and used widely among LTC facility staff, with back-up from dental health professionals where possible. If possible, its impact should be formally evaluated.

These recommendations are similar to those which have arisen from British and Scandinavian studies (Frenkel et al, 2000; Weeks and Fisk, 1994; Eadie and Schou, 1992; Wardh et al, 1997), perhaps reflecting the universal nature of the oral care problems encountered in the LTC facility sector.

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