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Attitudes and perceptions towards oral hygiene tasks among geriatric nursing home staff

Abstract: Objectives: To assess attitudes and perceptions towards oral hygiene tasks among geriatric nursing home staff, before and after a dental hygiene education. Methodology: A survey questionnaire was distributed to the nursing staff (n = 105), at a geriatric nursing home in Stockholm, Sweden. Results: The response rate to the questionnaire was 83%. A vast majority (87%) of the nursing staff considered oral hygiene tasks unpleasant. The main reason for considering oral care unpleasant was a perceived unwillingness from the residents. The perceived unwillingness from the residents among the nursing staff was reduced after the dental hygiene education (chi-square test, P = 0.02). A vast majority of the nursing staff experienced, always or sometimes, resistance from the residents towards oral care. Conclusions: Nursing home staff members consider oral care tasks unpleasant, and frequently experience resistance from the nursing home residents towards oral care. The perceived unwillingness from the residents is reduced after an advanced dental hygiene education. Further studies are needed to evaluate the effects of education on nursing staff's attitudes and perceptions towards oral care tasks, with the overall aim of improving the oral health among older people in hospitals and nursing homes.

Key words: attitudes; dental hygienist; nursing; oral hygiene; questionnaire

Introduction

In the current Swedish public dental health insurance system, introduced in January 1999, it was decided as a common public health strategy that the cost of dental care for community-dwelling elderly and disabled patients, as well as certain other prioritized groups of the Swedish population, would be extensively subsidized by the Swedish County Councils (1). Therefore, patients belonging to any of the subsidized categories are currently entitled to receive an annual oral health assessment, free of charge. Furthermore, the subsidized individuals need to pay a relatively small individual fee for required dental care (i.e. dental care within certain limits), corresponding to the fee charged for visits at the health care centres in each individual county (in year 2007; 100–150 SEK, approximately 11–17 EUR) (1). Thus, all elderly nursing home residents in Sweden are entitled to a free annual oral health assessments as well as required dental care.

Elderly nursing home residents often have difficulties in maintaining a sufficient level of personal oral hygiene, and difficulties in accessing professional dental care (2). Therefore, within the procured missions of annual oral health assessments, it is considered important to ensure that the nursing staff members are sufficiently educated in how to provide the nursing home residents with adequate daily oral hygiene measures. To achieve this, education in oral hygiene for nursing home staff is crucial (3–5).

Oral health care attitudes and dental hygiene educations in nursing home environments have been previously studied, but often, the oral hygiene educational attempts have not reached satisfactory results (4, 6-11). One plausible explanation is that there is a gap between knowledge and behaviour, influenced by attitudes and perceptions towards oral care among nursing staff (11).

It is well established that persistent dental plaque (i.e. biofilm) leads to an increased risk of developing dental caries, gingivitis, as well as other infections in the oral cavity. In addition, increasing research evidence indicates a clear relationship between oral infections and general health complications (7, 12–15). Poor oral hygiene and a poor dental status may also result in reduced quality of life and difficulties in maintaining an active social life (16). Thus, the importance of daily oral hygiene needs to be increasingly emphasized in nursing curricula and continuing professional education. A careful and continuous follow-up of dental hygiene education is also needed to assure nursing staff that oral care tasks are considered important by the management.

An overall aim of a dental hygiene education for nursing staff is to educate the nursing staff in how to provide the caretakers' daily oral hygiene, and to maintain subsequently a sufficient level of oral hygiene and oral health status among the nursing home residents. Thus, to understand why oral hygiene among elderly nursing home resident remains poor or unsatisfactory, despite oral hygiene education, a key element is to elucidate attitudes and perceptions towards oral care practices among the nursing staff (4, 11). It should also be emphasized that patients with dementia differ in their compliance from that of cognitively intact elderly. Thus, it is common that the individuals with dementia often do not wish to comply when oral hygiene or other care tasks are attempted by the nursing personnel. The current questionnaire study was initiated with the aim of assessing attitudes and perceptions towards oral practices among geriatric nursing home staff.

Study population and methodology

A descriptive survey questionnaire was distributed among 105 nursing home staff members at Solberga geriatric nursing home (Stockholm, Sweden, year 2006), which is a well organized dementia care centre, where the nursing staff members are frequently in contact with dental professionals. The sample represented a vast majority of all employed nursing staff at all three dementia departments (residents' age range 69–96 years). The staff members were either college-educated or university-educated nurses, nursing assistants (i.e. 2–3 years formal education), nursing auxiliaries (with a shorter course in nursing) or staff members with no formal education. As it was voluntary for the staff members to participate in the questionnaire sur-

vey, information about the education among the non-respondents was not available. The management approved and collaborated in the study.

The questionnaire was developed with the purpose of elucidating attitudes and perceptions among the nursing staff about providing the nursing home residents with daily oral care practices. The questions, for example were (translated from Swedish): 'Do you have sufficient knowledge to conduct daily oral care measures on your care recipients?'; 'Are you satisfied with the results of the provided oral care?'; 'Do you meet resistance in the oral care situation from the care recipients?'

The dental hygiene education

The dental hygiene education consisted of three steps, described elsewhere (17). Briefly, the first step in the dental hygiene education took place with the residents' contact persons, or similar, who were given instructions, hands-on training and individual recommendations in relation to the residents' individual needs for oral care (17). The second step of the dental hygiene education (approximately 60 min) was held in small discussion groups, comprising four to eight nursing staff members at each occasion (17). A dental hygienist (EK) and a psychologist (PW) attended the discussion groups, which were based on methods from cognitive behavioural therapy, aiming to modify negative attitudes, as well as perceptions of unpleasantness in relation to oral hygiene tasks (17). The third and final step in the dental hygiene education was a theoretical lecture (90 min) focusing on the associations between dental hygiene, oral health, and general health among elderly (17).

Data analyses

The questionnaire data were processed in MS Excel (Windows XP) and statistical calculations (STATISTICA 8.0 software, Statsoft Inc., Tulsa, OK, USA) were made by an independent statistician at The Department of Learning, Informatics, Management and Ethics (Karolinska Institute, Stockholm, Sweden).

Results

The response rate to the questionnaire was 83% (n = 87) in total. The characteristics of the respondents in relation to their nursing professions are shown in Table 1. All respondents did not answer all questions.

The nursing staff considered that they had sufficient time to carry out oral care practices (92%), and a majority (65%) of the nursing staff did not prefer other nursing practices ahead of oral care.

A vast majority of the nursing staff replied that they had sufficient knowledge to carry out daily oral care practices 83%, but less than a third (30%) of the nursing staff members were always satisfied with the results of the given daily oral care.

A vast majority (87%) of the nursing staff considered oral hygiene practices unpleasant. The main reason for considering oral care unpleasant was a perceived unwillingness from the

Table 1.	Characteristics of the respondents in relation to
nursing	profession (percentage within parenthesis)

	(<i>n</i> = 87)
Nurse	9 (10)
Nurse assistant	40 (46)
Nursing auxiliary	35 (40)
Other staff*	3 (3)

*Nursing home staff without formal education.

residents, which was reduced after the dental hygiene education (chi-square test, P = 0.02) (Table 2). The other perceived reasons for considering oral hygiene unpleasant were not reduced after the dental hygiene education (Table 2).

A majority of the nursing staff experienced, always or sometimes, resistance from the residents towards oral care, but there were no statistically significant differences for this perception before and after the dental hygiene education (Mann–Whitney U-test, P = 0.38) (Table 3). In addition, 84% of the nursing staff felt that they would need to use mild physical force to be able to perform the oral hygiene practices sufficiently.

Discussion

The primary objective of this study was to assess geriatric nursing home staff's attitudes and perceptions towards oral care practices. The response rate in this survey was relatively high, and as the results are largely consistent with earlier studies (10, 11), the collected data should be representative of the here studied urban nursing home in Sweden (18). However, it should be noted that the survey was conducted in a well organized dementia care centre, where the nursing staff members are frequently in contact with dental professionals. Therefore, the results of the current survey should be interpreted with caution, as they may not be representative of nursing homes where the residents have mainly somatic problems, or for rural nursing homes, or for nursing homes in other countries with

Table 2. Reasons for perceived unpleasantness towards oral care tasks among nursing home staff, before and after dental hygiene education (percentage respondents within parenthesis)

	Dental hygiene education		
Reason for	Before	After	<i>P</i> -value [†]
unpleasantness*	(<i>n</i> = 85)	(<i>n</i> = 81)	
Patients' unwillingness	65 (76)	48 (59)	0.02
Fear of causing damage	22 (26)	22 (27)	>0.05
Bad breath/bacteria	8 (9)	13 (16)	>0.05
Dental constructions [‡]	1 (1)	0 (0)	na
No unpleasantness	11 (13)	16 (20)	>0.05

na, not analysed because of too few respondents.

*Some respondents gave several reasons for perceived unpleasantness towards oral care tasks, and all respondents did not answer this question.

[†]Chi-square test.

[‡]Mounting or dismounting removable prosthetic constructions.

Table 3. Perceived resistance from residents towards oral care among nursing home staff, before and after dental hygiene education (percentage within parenthesis)

	Dental hygiene education*		
Resistance perceived	Before (<i>n</i> = 86)	After (<i>n</i> = 80)	
Always Sometimes Seldom Never	16 (19) 63 (73) 4 (5) 3 (3)	12 (15) 59 (74) 8 (10) 1 (1)	

Mann–Whitney U-test, P = 0.38.

*All respondents did not answer this question before and after the dental hygiene education.

vastly different professional health care education or organizations.

A vast majority of the nursing home staff considered that they had sufficient knowledge to carry out daily oral care practices. Interestingly, in previous dental hygiene education, the general opinion has been that the baseline knowledge about oral care among nursing staff is generally relatively low (4, 9). Another paradox encountered in this context is that, despite claiming to have sufficient time to carry out oral hygiene practices, the dental hygiene of the residents is often insufficient (4, 9, 10). Both these phenomena may be explained by the fact that nursing home staff members consider performing oral hygiene practices an unpleasant task (10, 11) and thus they try to avoid it as much as possible or to shorten the actual time devoted to it. However, this may also be a consequence of uncertainty regarding the responsibilities of the nursing staff versus the residents' needs and demands. Nevertheless, the perception of unpleasantness towards oral care tasks seems to be a common problem. The main reason for considering oral care an unpleasant task among the nursing staff was the perceived unwillingness from the residents. Interestingly, in the current study, the perception of unwillingness from the residents' among the nursing staff was reduced after the dental hygiene education.

Another major barrier among the nursing staff was the fear of damaging the residents' teeth or removable prostheses during oral hygiene practices (4, 6). However, this perception was not reduced after the dental hygiene education.

A general concern about the residents' integrity and privacy among nursing staff has been proposed to lead to reluctance to conduct oral care practices (11). Thus, in this context, the importance of dental hygiene and its positive effects on general well-being need to be strongly emphasized (16).

As the elderly population in developed countries rapidly increases, so does the need for dental and medical care in this population. In an increasing extent, the nursing home residing older people have their own natural teeth, or fixed prosthetic appliances (e.g. crowns, bridges, and/or dental implants) (19), all of which impose heavier demands on the nursing staff and their skills in oral care.

In light of the current findings, it seems crucial that the nursing staff members are confident and comfortable in the oral care situation, to be able to provide the nursing home residents with adequate assistance in their daily oral hygiene. Insufficient education in oral health and disease, as well as in oral hygiene, in both undergraduate and postgraduate nursing curricula, has been recognized as a major barrier for providing adequate oral care for the elderly hospitalized and nursing home residents (10, 11). Thus, more oral health-related education is needed in the nursing curricula (10, 11), as also in education in the psychological aspects of how to interact with individuals who do not wish to comply during oral care tasks.

Recently, a similar dental hygiene education (20), as the one reported here, has been shown to facilitate the maintenance of an improved oral hygiene status, among older nursing home residents, over a span of 1.5-years (21). In addition, a repeated dental hygiene education for nursing home staff seems to lead to further oral health improvement among the elderly nursing home residents (22).

It is important that dental hygienists are aware of the perceived obstacles to daily oral hygiene among nursing home staff members. Dental hygienists need to emphasize the importance of oral hygiene and to educate the nursing staff in how to assist elderly nursing home residents to maintain a sufficient level of oral hygiene.

One way to achieve this is to train carefully the nursing staff on how to handle their care recipients, based on mutual respect, in a way that facilitates building of psychological bridges. This is a very delicate issue which cannot be overlooked in the educational programme curriculum. It must rather be firmly stressed and supervised by professional teachers. Furthermore, to allow for a gap between knowledge and behaviour, influenced by attitudes and perceptions towards oral care among the nursing staff, is to introduce serious problems for the caretakers and cannot be considered correct. Finally, a careful and continuous follow-up of the dental hygiene education is also needed to ensure the nursing staff that oral care tasks are considered important by the management.

Nursing staff consider oral care tasks unpleasant, and frequently experience resistance from the nursing home residents towards oral care. The perceived unwillingness from the residents is reduced after an advanced dental hygiene education. Future dental hygiene education should aim at changing such attitudes towards oral care among the nursing staff.

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