

Nutritional status and oral health of residents of aged care facilities

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Background: Residents of aged care facilities frequently have poor oral health. . There is evidence to suggest that poor oral health has implications for general health and well being, however the association between oral health and nutritional status is unclear.

Objective: To investigate the association of oral health status and oral health-related quality of life with nutritional status in residents of aged care facilities.

Method: Data was collected from January to March 2015 in two residential aged care facilities in Southeast Queensland, Australia. An aged care dietitian conducted nutritional assessments using the Subjective Global Assessment (SGA).

An oral health therapist performed assessments using the Oral Health Assessment Tool (OHAT) and geriatric oral health assessment index (GOHAI). A ranking of healthy (0), changes (1), or unhealthy (2) was recorded for the oral health status, with a maximum total OHAT score out of 16 indicating extensive problems. Total GOHAI scores ranged between 12 and 60, with a higher score indicating better oral health.

Findings: A convenience sample of 65 participants took part in this study.

Nutrition and oral health of residents

- Proportion of malnourished residents (SGA score) was higher than for the state comparison population (Table 1)
- Proportion of participants with oral assessment scores of 'healthy' (OHAT) was lower than for the national comparison population (Table 2)
- Median OHAT score was 5.5 (out of 16 , indicating extensive problems)
- GOHAI assessment score was 51.2 (SD 7.3) (out of 60 , indicating good OHRQoL)

Impact of oral health on nutrition

- Compared to well-nourished residents, malnourished residents had a higher proportion of:
 - Functional oral health impacts
 - Dental referral required
 - Edentulism
- Compared to well-nourished residents, malnourished residents had a poorer total:
 - GOHAI score, indicating poorer OHRQoL
 - OHAT score, indicating poorer oral health (Table 3)

Conclusions: Both malnutrition and poor oral health/function were common in this sample of aged care residents. There was an observed reduction in quality of life and increased proportion of dentally functionally impaired residents who were malnourished.

Table 1. SGA scores of the study sample compared an available Queensland comparison population (Banks et al. (2007))

SGA scores	Study population n= 62 n (%)	Comparison population ¹ n= 839 n (%)
Well nourished	24 (38.7)	(50.0)
Moderately malnourished	34 (54.8)	(41.6)
Severely malnourished	4 (6.5)	(8.4)

¹. n not reported

Banks, M., et al., *Prevalence of malnutrition in adults in Queensland public hospitals and residential aged care facilities*. Nutrition & Dietetics, 2007. 64(3): p. 172-178

Table 2. OHAT scores of aged care residents compared with available national comparison (Chalmers et al. (2009))

OHAT scores	Study sample n= 52			Comparison population ¹ n= 455		
	Healthy n (%)	Changes n (%)	Unhealthy n (%)	Healthy n (%)	Changes n (%)	Unhealthy n (%)
Lips	41 (78.8)	7 (13.5)	4 (7.7)	(71.6)	(28.1)	(0.2)
Tongue	12 (23.1)	36 (69.2)	4 (7.7)	(74.7)	(23.3)	(2.0)
Gums and tissues	9 (17.3)	22 (42.3)	21 (40.4)	(76.0)	(19.1)	(4.8)
Saliva	29 (55.8)	18 (34.6)	5 (9.6)	(86.8)	(11.9)	(0.2)
Natural Teeth	16 (30.8)	13 (25.0)	23 (44.2)	(50.5)	(27.2)	(22.3)
Dentures	41 (78.8)	8 (15.4)	3 (5.8)	(58.7)	(25.7)	(15.5)
Oral cleanliness	6 (11.5)	23 (44.2)	23 (44.2)	(48.8)	(36.9)	(14.3)
Dental Pain	39 (75.0)	12 (23.1)	1 (1.9)	(90.8)	(4.8)	(4.4)

¹. n not reported

Chalmers JM, S.A., Carter KD, King PL & Wright C., *Caring for oral health in Australian residential care*, in *Dental statistics and research series no. 48*. Cat. no. DEN 193. 2009, AIHW: Canberra.

Table 3. Oral health scores for well-nourished and malnourished residents

	Total n (%)	Well nourished (SGA score A) n (%)	Malnourished (SGA score B and c) n (%)
Dental Referral Required	41 (82)	15 (36.6)	26 (63.4)
GOHAI score ¹	51.2 (7.4)	54.1 (7.4)	49.3 (6.7)
Dental status			
Edentate	15 (29.4)	5 (26.3)	9 (30.0)
Dentate	36 (70.6)	14 (73.7)	21 (70.0)
Total OHAT score ²	5.5 (4.25,7.75)	5.0 (3.0, 7.0)	6.0 (5.0, 8.0)
Number of teeth ²	15.0 (0.0, 21.0)	15.0 (0.0, 25.0)	17.0 (0.0, 21.0)

¹. Mean (SD)

². Median (IQR1, IQR3)

³. Including edentate participants