

An investigation into the association between eating environment and food intake of residents with dementia at an aged care facility

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Objective – Anecdotal reports have suggested that small dining rooms improve behavior at meal times in those with dementia and that aromatherapy can have a calming influence. This study aimed to determine whether the type of dining area (canteen style versus domestic style) or the use of aromatherapy influenced food consumption of residents with dementia in an aged care facility.

Design – Food consumption of residents with dementia was measured in a large, canteen style dining area over 15 days at lunch and dinner and compared to food consumption of residents with dementia in a small, domestic style dining area. Due to the nature of the research and the need for minimal disruption to residents, individual intakes were unable to be measured. Intakes were estimated from total food offered to the groups minus food returned. Aromatherapy was also used in the small room and food consumption measured for a further 15 days at lunch and dinner. Analysis of variance was used to determine the effect of meal, room and aromatherapy on mean intakes and mean proportion eaten per person. Descriptive statistics were used for reporting frequency of consumption of individual meals and likes and dislikes.

Outcomes – Ten residents participated in the study, nine female and one male. In the first stage six residents were present in the small room and four were present in the large room. In the second stage (aromatherapy) there was five residents present in the small room.

	Mean total daily intake (g) per person (SD)	Lunch	Dinner	Significance (lunch vs dinner)
Large room	494 (101.0)	246 (70.5)	244 (56.3)	NS
Small room	448 (98.3)	240 (67.3)	209 (46.4)	0.02
Small room with aromatherapy	488 (58.0)	261 (61.5)	228 (37.7)	0.02
Significance aromatherapy	NS	NS	NS	

The mean intake of residents in the small room was significantly more ($P = 0.02$) at lunch ($240 \text{ g} \pm 67.3$) than dinner ($209 \text{ g} \pm 46.4$), and this occurred whether or not aromatherapy was used. Mean intakes were slightly higher at lunch (21g more per person) and dinner (19 g more per person) when aromatherapy was used, but did not reach significance. Examining the proportion of food eaten revealed that even though total daily intake (lunch plus dinner) increased in the small room with aromatherapy (74.6% versus 71.2% of total food offered), this was not significant. A significantly ($P = 0.011$) greater proportion was eaten in the large room compared to the small room (78.1% versus 71.2% of total food offered).

Conclusions – Residents with dementia ate a larger amount at lunch than dinner and those residents in the large room ate more when compared to those in small room. Aromatherapy did not alter food consumption in residents with dementia. Further research with a larger sample size may modify this conclusion.