

Over- and undernutrition: challenges and approaches. 29 June–2 July 2009

Food and non-food factors affecting nutrition provision in care homes in Surrey

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The UK elderly population is increasing steadily; by year 2050, the number of individuals aged >75 years is likely to double⁽¹⁾. This situation represents a key public health issue, not least in relation to the increased demand for health and social services associated with an increase in population morbidity levels. Malnutrition is related to increased mortality, increased risk of fracture, infections and specific nutrient deficiencies leading to a variety of health-related conditions that affect the quality of life⁽²⁾. With increased age, individuals become more vulnerable to malnutrition for reasons that include: socio-economic factors; inadequate food intake; poor food choices; illnesses causing increased requirements, nutrient loss or poor absorption⁽³⁾. A positive eating environment has been shown to improve body weight and relative health condition in care-home residents^(4,5). The non-food factors are therefore an important consideration for nutritional wellbeing in this setting.

The aim of the present study was to audit the nutrition provision in a sample of care homes in Surrey, UK against the Food Standards Agency (FSA) guidelines⁽⁶⁾. In addition, the study set out to investigate factors promoting appetite and identify measures in place to prevent malnutrition.

A judgemental sample of four care homes (homes 1, 2, 3 and 4) located in Surrey were recruited through contacts known to the community dietitian (S.G.). Homes were selected to achieve a representative range by cost of care, and each home was visited during one lunch service. Observation of the food service, interviews with care-home staff and an audit proforma developed for the study were used to collect data on the service provided within the care homes. Nutrition provision was assessed by weighed portions and analysed using Windiets (Univation Ltd, Aberdeen, UK). Residents' mean dietary intake was calculated from these data combined with a visual plate-waste method⁽⁷⁾. The menus from each care home were analysed and compared with FSA guidelines. The audit proforma was completed to assess the care-home demographics and non-food factors in food service. These data were analysed by a points system and a total score was derived for each home. Data were entered into SPSS (version 13; SPSS Inc., Chicago, IL, USA) for statistical analysis.

All homes met the Department of Health national minimum standards for care homes⁽⁸⁾ and the majority of the FSA guidelines for institutions. Nutritional analysis of the lunch meals showed that the mean energy and total fat provided was higher than FSA recommendations in homes 3 and 4. Homes 2 and 4 provided a lower carbohydrate serving than the recommendation, home 2 failed to meet the recommendation for protein and home 4 met the fibre recommendation. All homes failed to provide adequate vitamin D and riboflavin at this meal service. These shortcomings could be offset by other provision within the daily food service; however, the mean intakes suggest that intakes are lower than provision. The non-food audit showed a positive correlation between the meal environment score and staff:residents (r 0.95, $P=0.05$). Unexpectedly, the cost of care was negatively correlated (r 0.9, $P=0.051$) with the overall food service score, suggesting that increased cost of care does not improve the quality of food service. This finding contradicts previous work showing that cost control adversely affects service quality, health and welfare⁽⁹⁾.

It is concluded from this audit that these care homes met the majority of the nutrition and food service recommendations, but that the levels of food wastage recorded represent a risk factor for malnutrition. The staff:resident level is a significant factor in nutritional care, but the cost of care appears less influential. It would be appropriate to extend this survey to cover a wider range of meal times and care homes. Interventions to target food wastage, improve intakes and maximise staff input at mealtimes would be of value in addressing malnutrition risk and improving the food service quality. As older individuals stay in their own homes for longer it would be appropriate to investigate food provision and food-related quality of life across these settings.

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