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Modified diet adherence to nutrition standards in long-term care facilities

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Dysphagia is more common in older age and is present in up to 70% in long-term care facilities (LTCFs)[(1)]. Thus, the demand for texture-modified diets (TMDs), required to ensure safe nutrition for residents, is high. Individuals with dysphagia are at greater risk of malnutrition, poorer health outcomes and quality of life[(2)]. Moreover, TMDs are less energy- and nutrient-dense due to necessary processing[(3)]. Consequently, TMDs require additional planning and fortification to meet nutrient requirements for this cohort. The International Dysphagia Diet Standardisation Initiative (IDDSI) framework describes drink thickness (level 0-4) and food textures (level 3-7; liquidisedregular), to ensure standard textural characteristics of foods and drinks, however, there is little guidance for food providers in Ireland on how to prepare TMDs to meet nutritional requirements. Whether TMDs in LTCFs meet nutrition standards for food provision in Ireland is unknown. Our aim was to conduct a clinical audit, evaluating adherence of TMDs in a LTCF in Cork, Ireland, to the BDA Nutrition and Hydration Digest[(4)].

Samples of the daily menu, i.e. all meals, snacks and drinks for IDDSI level 3,4,5 and 6 were weighed over a 2-day period, representing the maximum food and beverages available to residents. Recipes were confirmed with the catering department. Nutritional analysis was conducted using Nutritics©. Nutritional composition was compared to the nutrition standards of the BDA for food providers for nutritionally vulnerable individuals (total daily targets:1840-2772kcal, 79-92g protein; main courses: 800kcal, 27g protein).

The daily TMDs of the LTCF provided [mean (SD)] 1928 (334) kcal, 73 (0.0) g protein (level 3); 1646 (62) kcal, 52 (2.0) g protein (level 4); 1323 (91) kcal, 45 (3.0) g protein (level 5); 1506 (75) kcal, 53 (5.0) g protein (level 6). On analysis of main courses, lunch meals provided 534 (99) kcal, 20 (3.0) g protein (level 3); 436 (0.3) kcal, 16 (0.8) g protein (level 4); 399 (16) kcal, 12 (1.0) g protein (level 5); 353 (13) kcal, 14 (0.3) g protein (level 6), while evening meals provided 770 (58) kcal, 33 (7.0) g protein (level 3); 561 (33) kcal, 19 (0.4) g protein (level 4); 305 (39) kcal, 9 (0.4) g protein (level 5); 379 (52) kcal, 18 (6.0) g protein (level 6).

Across levels, there was poor adherence to energy and protein standards. Only level 3 provided sufficient daily energy and met protein targets for evening meal, potentially explained by the use of full fat milk as a dilutant to create the correct consistency. Guidance is needed for food providers of all LTCFs in Ireland on how to prepare TMDs for nutritionally vulnerable individuals. Future research should investigate actual food consumption, malnutrition risk, oral nutritional supplementation use and training of food providers in LTCFs.

References

1. Estupiñán Artiles C, Regan J & Donnellan C (2021) *Int J Nurs Stud* **114**, 103813.
2. Wu XS, Yousif L, Miles A *et al.* (2022) *Nutrients* **14**(3), 669.
3. Vucea V, Keller HH, Morrison JM *et al.* (2017) *BMC Nutr* **3**(1), 80.
4. BDA (2023) The Nutrition and Hydration Digest 3rd Edition [Available at: https://www.bda.uk.com/practice-and-education/nutrition-and-dietetic-practice/the-nutritionand-hydration-digest.html].

*Equal contributions