



Title: The Dairy and Fracture Project: A Research Translation Challenge

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Dairy Project - Background

- ✦ In Australia, people aged over 65 are eligible for government funded aged care services.
- ✦ These can be provided in the persons home, or in a residential aged care facility setting.
- ✦ Nutrition is a cornerstone of care in the residential aged care setting



Dairy Project - Background

Project Funding: multiple sources of competitive grant funding, including Dairy Australia

Project Activities: The Dairy and Fracture Project is a multi-phase, collaborative, research project that assessed the benefits of additional dairy products on nutrient intakes, malnutrition, fracture risk, health and quality of life in aged-care recipients living in residential aged care facilities in Victoria Australia.

- ★ **Participants:** Benetas is a large not-for-profit aged care service provider in Victoria Australia. Benetas has 4000 clients, 1400 staff and 400 volunteers. One quarter of Benetas clients reside within Benetas 13 facilities.
- ★ 130 residents participated (78% female, mean age 86.5 years).

Nutrition Study Methods

✦ Methods:

- The project was a prospective intervention and involved the provision of two additional dairy products into the resident's diet so they achieved the recommended four serves of dairy per day.
- Two intervention and two control low-level aged-care facilities in Melbourne, Australia were selected to pilot the intervention. Residents at intervention facilities were provided with 2 additional dairy serves daily over a 4-week menu cycle, while control facilities consumed from their usual menu.

Dairy Project - Results

- ✦ Residents in intervention facilities significantly **increased** their mean daily intakes of **energy and protein**, both of which achieved recommended intake levels, and proportion of energy from protein, while the proportion of energy from fat decreased.
- ✦ **Significant increases** in mean daily micronutrient intakes were observed for **calcium, vitamin D and zinc**, which remained unchanged in control residents.
- ✦ Residents had **less fractures and falls** in the intervention group, however this was not statistically significant due to small sample size. This is being investigated in Phase 2 of the project across 60 Residential aged care facilities. Phase 2 also includes bone density scanning.

Dairy Project - Implementation Challenge

- ✦ This research demonstrates that two additional serves of dairy food can significantly improve nutrient intake in aged-care residents and its ease of provision makes it a viable option to potentially prevent malnutrition
 - Iuliano, Woods, Robbins (2013) Consuming two additional service of dairy food a day significantly improves energy and nutrient intakes in ambulatory aged care residents: A feasibility study. *The Journal of Nutrition, Health and Ageing*, 17(6)pp 509-513.
- ✦ **Within three months of the cessation of the trial, the dairy diet had ceased at all participating facilities.**
- ✦ Barriers to the ongoing implementation of this initiative were investigated
- ✦ A systematic approach was incorporated to overcome these barriers

Analysis of Implementation barriers

Industry level factors:

Funding, state and federal government policy, legislation

Organisation Level factors:

Catchment area, staff ratios, organisational policies, funding structures, organisational culture, attraction/retention

Site Level factors:

Staff ratios and skill-mix, facility size, management, site culture, geographical factors, referral pathways, health resource access

Individual factors:

Client preferences, client acuity, family members, personal wealth resources, staff preferences, staff skills, geography

Implementation Strategies

✦ System

- policy development and lobbying for standards and nutrition funding - evidence based argument

✦ Organisation level:

- recipe repository,
- staff retention focus, chef position created
- cultural change to include nutrition as part of medical care

✦ Site Level

- increased communication with kitchen staff, menu resource access, increased labour

✦ Client Level

- sourcing recipes from clients and families
- Balance between nutrition and personal choice

Summary

- ✦ Lesson learned - research translation is not simple, even when positive and evidence based
- ✦ Barriers at multiple layers, most solutions local
- ✦ Operational staff engagement and continuity is the key to actual change



Thankyou 😊



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