ELDORADO – Ett danskt systerinitiativ om mat för äldre

Äldre idag och imorgon, ser vi några trender? Slutseminarium

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At some point one looses independence and needs help in food provision ...

The prospect of enrolling in meal service may not be too appealing ...

Ca. 30% of people in meal service develop different degrees of malnutrition ...
ELDORADO project
Meal service in Denmark

Customer knowledge

Meal preparation

Meal stability/quality
(physical/chemical, microbiological, sensory, nutritional)

Appetite at home

Costs and environmental impact
Meal service in Denmark

Customer knowledge

Meal preparation

Meal stability/quality
(physical/chemical, microbiological sensory, nutritional)

Appetite at home

Purchasing

Costs and environmental impact

Storage

Storage

Storage

Storage
Meal compliance with elderly in meal service

Which portion size fits best with you?
Optimisation of meals – “visual appetite”

Eye-tracking meal pictures
(first 7 sec)

**Design**
- Colour contrasts
- Visual complexity
- Nutritive value

**Measures**
Attentional heat maps
Attentional sequences
Acceptance evaluation
- Desire to eat
- Liking
Maize soups with different condiments

[Diagram showing selected subjects and average]
Optimisation of meals – acceptance novel soups

Energy dense (-) soup:

- Maize soup with low energy density
- Maize soup with high energy density
- Maize soup with high energy density + parsley
Optimisation of meals - Ageing and the senses

Changes in functioning of the senses has multiple facets; an elderly’s food experience is thus affected in different ways. Goldman et al., 2014

Important senses for meal experience

- Smell
- Taste
- Sight
- Touch (texture)
- Hearing (texture)
- Kinesthesis (body movements)

Changes in different memory functions

- Sensory, semantic and episodic
Sense of smell changes with getting older

Recognition of odours intensity

Perceived odour


Compensation strategies for elderly meals

Sensory compensation strategies:

- Flavour enhancement \(\Rightarrow\) no or positive effect
- More complex flavours \(\Rightarrow\) no or negative effect
- Strong spices \(\Rightarrow\) no or negative effect
- Teksture modification \(\Rightarrow\) no, positive or negative effect

Most studies showed:

- Positive effect of sensory compensation strategies to increase food preferences for elderly in a caring situation (hospital, rehabilitation, mad service or day-care center)
- No or negative effect for elderly living at home independent from care

Development of ELDORADO meals for meal service

- Delicious nutritious ELDORADO meals (NEMO)
- Texture modified meals (TMT) for dysphagia patients

- 60 NEMO meals
- 20 TMT meals

Selection of meals for randomised controlled trial with 100 subjects over a period of time; evaluating health benefits
"The good meal" at home

Based on collection of diaries (6 days) and interviews from 22 older citizens
IT tools for interacting at meal times
Sustainability and economic impact

- FOOD waste versus production costs
- Transport and production costs
- CO2 footprint
- Other environmental impacts of choice of meal components and preparation (SIMAPRO life cycle analysis)
www.ELDORADO.ku.dk
Tack så mycket!

From ELDORADO’s WP leaders and coordinators

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ELDORADO - Preventing malnourishment and promoting well-being in the elderly at home through personalised cost-effective food and meal supply

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