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The UNIVERSITY of VERMONT
COLLEGE OF MEDICINE
In alliance with Fletcher Allen Health Care

Nutrition and Social Eating Habits Among Seniors Living Independently

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Cathedral
Square Corporation

Background:

Older adults have unique nutritional needs due to physiologic changes that occur as part of the normal aging process. Maintaining adequate nutrition has the potential to reduce morbidity and mortality related to chronic disease, fall risk, dementia and Alzheimer's disease.[1] Aging also poses an increased risk of isolation and lack of social interaction, particularly noted at meal times. Unintentional weight loss is an independent risk factor for early mortality.[2] Social eating is related to higher food intake[3], and meal programs can improve nutritional risk for vulnerable seniors.[4] We partnered with the Cathedral Square Corporation (CSC) to assess nutrition and social eating in residents at Heineberg Senior Housing in Burlington, VT and conducted focus groups to determine general nutritional concerns and evaluate potential interventions.

Methods:

Subjects: 59 volunteer residents from Heineberg Senior Housing ranging in age from 52-98 years with a median age of 83 years (10% males, 85% females; 5% unrecorded).

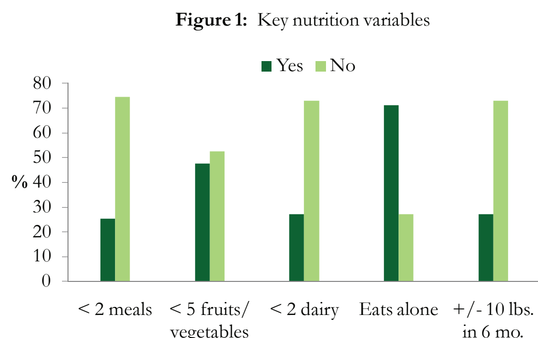
Interviews: The Seniors Aging Safely at Home (SASH) program staff conducted interviews examining general aspects of daily living and health maintenance, chronic disease, nutrition, mood, and cognition.

Data Analysis: Interview responses were summarized as percentages and frequencies. Categorical data were evaluated using χ^2 tests and continuous variables were analyzed with ANOVA and Pearson correlations. Data were analyzed using SPSS, with $\alpha = 0.05$ for all tests. Statistical analysis focused on nutrition and related variables.

Results:

The figure below illustrates 5 domains of eating habits amenable to intervention among Heineberg residents

Figure 1: Key nutrition variables

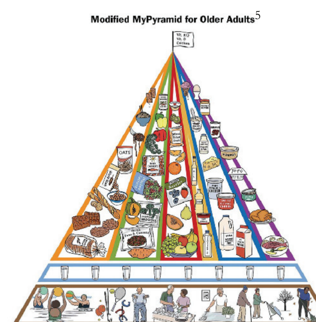


A composite nutrition score was created based on 11 dichotomous questions about eating habits where higher scores correlated with poorer nutrition. A significant association was found between a poor nutrition score and the medical conditions listed in the left column below.

Table 1: Medical conditions significantly associated with poor nutritional score

ANOVA Test		N	Mean *(Std. Error)*	p-value
ED Visits per year	**1+ visits**	**29**	**4.69** *(0.29)*	**0.01**
	0 visits	**30**	**3.57** *(0.31)*	
Fallen	**Yes**	**35**	**4.91** *(0.25)*	**0.01**
	No	**23**	**2.96** *(0.29)*	
Heart Condition	**Yes**	**18**	**4.89** *(0.42)*	**0.02**
	No	**41**	**3.78** *(0.25)*	
Chronic Pain	**Yes**	**23**	**4.78** *(0.38)*	**0.02**
	No	**36**	**3.69** *(0.26)*	
Diabetes	**Yes**	**13**	**5.00** *(0.52)*	**0.04**
	No	**45**	**3.87** *(0.24)*	

ANOVAs did not reveal significant relationships between nutritional scores and the following medical conditions: arthritis, anxiety, digestive problems, bowel incontinence, recurrent diarrhea, recurrent constipation, and cancer. Additionally, Pearson r correlation showed a significant association between depression and nutritional score ($r=0.30$; $p=0.02$).



Focus Groups: Based on a search of the relevant literature and review of interview data, we developed discussion guides for two sixty minute focus groups which were conducted at Heineberg. Focus groups assessed the feasibility of interventions involving nutritional intake (n=8) and social eating habits (n=7) within our cohort.

Key Focus Group Findings

Participants in the nutrition focus group expressed:

- General concern regarding one's own need to lose weight while simultaneously acknowledging that ill residents appeared very thin
- Decreased interest in preparing meals and increased grazing on high calorie snacks instead—especially if widowed
- Strong interest in learning about micronutrient intake
- Current usage of multivitamins *(5/8)*
- Strong interest in individualized nutritional assessment
- Modest interest in sharing recipes

Participants in the social eating focus group expressed:

- Many ate breakfast *(6/7)*, lunch *(3.5/7)*, and dinner *(6/7)* alone
- Many expressed discontent with eating alone *(5/7)*
- Perceived lack of opportunities for social eating
- Many *(5/7)* would increase intake if they ate in groups
- Concern about lack of diabetic options
- Lack of awareness of existing group meal events
- Strong interest in social activities involving food and culture

Discussion:

Our data suggests poor nutrition is significantly associated with increased ED visits, falls, heart conditions, chronic pain, diabetes and depression. Based on a combination of the literature and two focus groups, we have identified three possible interventions to improve nutrition among seniors:

- Daily multivitamin usage-particularly with vitamins B, D, E, K and increased intake of calcium, potassium and fiber
- Increased availability of group meals and themed dinners
- Individualized nutrition plans focusing on prevention of unintentional weight loss

Due to the nature of the Heineberg facility, we recognize that these findings may not be broadly generalizable. However, we believe that the areas we have identified are likely to be generally effective in improving seniors' nutritional status and overall health.

References:

1. Seshadri S, Beiser A, Selhub J, Jacques PF, Rosenberg IH, D'Agostino RB, Wilson PW, Wolf PA. 2002. Plasma homocysteine as a risk factor for dementia and Alzheimer's disease. N Engl J Med. 346:476-83.
2. Moriguti JC, Moriguti EKU, Ferriolli E, Cacao JC, Junior NI, Marchini JS. 2001. Involuntary weight loss in elderly individuals: assessment and treatment. Sao Paolo Medical Journal. 119:72-7.
3. Paquet et al. 2008. More than just not being alone: the number, nature, and complementarity of meal-time social interactions influence food intake in hospitalized elderly patients. Gerontologist. 48:603-11.
4. Keller HH. 2006. Meal programs improve nutritional risk: a longitudinal analysis of community-living seniors. J Am Dietetic Assn. 106: 1042-1048.
5. Lichtenstein AH, Rasmussen H, Yu WW, Epstein SR, Russell RM. 2008. Modified MyPyramid for Older Adults. J Nutr.. 138:78-82.

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