



## Dependency on Others for Food Purchasing and Preparation is Associated with Poorer Nutrient Intake

Summary of: Keller, H. H. (2005). Reliance on others for food related activities of daily living. *Journal of Nutrition for the Elderly*, 25(1), 43-59.

### Nutrition and health...older adults depend on it!

As a person ages, access to food can become restricted. Grocery shopping, and preparing meals can be challenging with limited physical functional abilities. These challenges can generate a need for assistance from others to complete these tasks. Food security of older adults can be threatened or sustained depending on the amount of support they have to complete their food-related activities of daily living (FADL). Little is known about how food intake is influenced by FADL and assistance that may be provided. Determining what associations exist between an older adult's health status, demographics, and personal characteristics in relation to their functional dependencies could help predict risks for food insecurity.

### What was done?

193 community living seniors from Guelph, Ontario were recruited for this study. Participants were 55 years of age or older, living in the community with no cognitive impairments. Questionnaires were administered (both self and interview style) to gain information on demographics, health status, and abilities with activities of daily living. Participants were asked if they needed assistance with their daily activities, and this was categorized as either without, sometimes, or always requiring help. Body measurements including weight, height, leg, arm, and waist circumferences were made and compared with references. 24 hour dietary recalls were collected from participants 3 times, one in person and 2 over the phone, including weekends. Previously verified recall techniques for seniors were used to ensure accuracy. Covariates used in analyses were based on the Disablement Process Model and included gender, age, living arrangements, income, education, presence of functionally limiting disease, medication/drug use, social involvement, perceived health (physical and mental) status as well as food related questions such as level of assistance with FADL through formal/informal support, dentition status, appetite levels and so on.

### What was found?

Of the 193 seniors, 21.8% needed partial or complete assistance when grocery shopping. 13.5% required partial or full help preparing meals. All together, 29.5% required some support with FADL. The strongest predictors of food intake included the presence of informal support for daily activities, frequency of informal support, perceived health status as well as the number of medications. Individuals who required more informal and formal support were also found to be in poorer health, had decreased strength and consumed less food. Participants dependent in either one or both shopping and food preparation activities were more likely to avoid activities for fear of falling, had functional problems that affected mobility and had a smaller calf circumference, indicating lower muscle mass. Participants dependent in both activities were more often found as males.

### Importance of research:

Multivariate analysis on FADL was found to be consistent with the Disablement Process model, where diagnosis of a health condition (i.e. stroke) can lead to impairments (found in this study to be smaller calf circumferences). After impairments, functional limitations emerge, (i.e. slower rate of getting up and going or avoiding activities for fear of falling) eventually leading to a disability, requiring full assistance in FADL. Having a clearer illustration of this pathway can be useful for assessing risk of FADL disabilities in older adults. This large multifactor analysis helps to understand the influence of various

risk factors on food security in older adults. Being able to access and prepare food is an important aspect of food security and quality of life.

**Applying what was found:**

If a FADL disability occurs appropriate interventions can be put in place to prevent and discourage food insecurity. Acknowledging signs and symptoms before a complete FADL disability develops can prevent an accelerated progression into extensive dependence on others. Providing stronger and bountiful support networks to aging adults could maximize their overall health and wellness. Providing rehabilitation to build muscle strength and prevent falls, congregate dining to promote socialization and reduce depression, increasing levels of family support, and access to adequate dental care through government funding are potential ways to promote an older adult's food intake and thus food security.

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