



## Background

# Nutrition Risk and Its Association with Dementia Diagnosis and Severity in Older Adults Referred to A Rural and Remote Memory Clinic

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- Undernutrition is a common problem in older adults with dementia and is associated with increased morbidity and mortality.
- Age-related physiologic changes, metabolic imbalances, impaired functional and cognitive abilities and psychological conditions might lead to poor nutrition
- Validated nutrition screening tools are useful in early detection of poor nutrition risk factors

**SCREEN II**  
Seniors in the Community:  
Risk Evaluation for Eating and Nutrition

- Weight Change**
- Weight change in the past six months
  - Unintentional weight loss
  - One's own weight perception

- Physiologic Change**
- Changes in appetite
  - Cough, choke or pain when swallowing
  - Difficulty in chewing

- Dietary Restrictions**
- Skipping meals
  - Avoiding or limiting certain foods
  - Using commercial food replacements

- Food Group Intake**
- Fruit and vegetables intake
  - Meat and meat alternatives intake
  - Milk and milk products intake
  - Fluid's intake

- Meal Preparation and Eating**
- Eating alone or with someone
  - Finding cooking a chore
  - Difficulty in getting groceries



**Purpose**

To assess overall nutrition risk and identify the most prevalent nutrition risk factors using the SCREEN II and evaluate the association between nutrition risk and dementia diagnosis and severity.



**Participants**

A clinical sample of 167 community-dwelling older adults (>55 y) on their referral to the Rural and Remote Memory Clinic (RRMC) at the University of Saskatchewan.



## Measures

### Nutrition Risk

- SCREEN II scores: overall, Individual items and five domains
- Nutrition risk groups (lower risk vs high-risk)

### Cognitive function

- Interdisciplinary team diagnosis (Dementia, MCI, SCI)
- Severity measures: MMSE and CDR-SOB

### Other measurements

- Sociodemographic: sex, age, education, MIZ
- Comorbidity
- Anthropometrics: weight, height, BMI

### Statistical analysis

- Comparisons between men and women
- Logistic regression (Y: nutrition risk; X: dementia diagnosis or severity)



## Results

Mean age **71.1 ± 8.7** years

### Comparison between men and women:

**Men (n=67), Women (n=100)**

- A higher proportion of women were diagnosed with dementia (57% vs. 38%)
- A more severe loss of cognitive function (MMSE and CDR-SOB scores) in women
- A greater BMI and comorbidity in men
- A higher proportion of women were at a high nutritional risk (60% vs. 55.2%),
- Women had a lower SCREEN II scores and higher number of nutrition risk factors
- The most prevalent risk factors for men and women were inadequate intake of milk, milk products, fruit, vegetables, and fluids, and perception of own weight



## Results

### Association between Nutritional risk and Dementia diagnosis or severity

**Y: High-risk vs. Low risk**

- There was no significant association between nutrition risk group and dementia diagnosis (SCI, MCI & Dementia), MMSE scores, or CDR-SOB scores in univariate, sex and age adjusted or full models of logistic regression)
- Comorbidity (number of other conditions) and age are two independent predictors of nutritional risk when controlling for cognitive function, sex, BMI, MIZ and education.



## Conclusion

- More than half of the study population were at high nutritional risk.
- Dementia diagnosis or severity were not associated with higher nutrition risk even after adjusting for sex, age, BMI, comorbidity, education, and metropolitan influence zone.
- Early detection of nutritional risk is essential to implement appropriate interventions and prevent adverse outcomes.

Thank you