



# ANH2021

## Agriculture, Nutrition and Health Academy Week

### Fruits and Vegetable intake and mental health among family caregivers of people with dementia in Uganda



#### introduction

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Consumption of fruits and vegetables is associated with improved mental wellbeing (Gibson-Smith et al., 2020; Liu, Yan, Li, & Zhang, 2016). Although this growing body of research has been widely recognized by researchers and clinicians in high-income countries, fewer studies examining this relationship have been conducted in low- and middle-income settings.



#### Methods/Approaches

**Participants:** We included 242 family caregivers of people living with dementia (75% women) from southwestern Uganda with a mean age Caregivers' mean age was 44.4 years (standard deviation [SD], 14.8), and they provided care for a mean duration of 8.4 years (SD, 2.6).

**Measures:** Fruit and vegetable intake in the past week was measured with a food frequency questionnaire. Depression and anxiety were assessed using the depression and anxiety subscales of the 42-item Depression, Anxiety and Stress Scales (DASS-42).

**Analyses:** Multivariable linear regression models were used to estimate the associations between fruits and vegetable consumption and depression and anxiety, adjusting for caregiving burden and other potential confounders.



#### Findings & interpretation

**Results:** Depression symptom severity was negatively associated with consumption of jackfruits ( $b=-4.68$ ;  $p = 0.032$ ), green leafy vegetables ( $b=-14.1$ ;  $p < 0.001$ ), root vegetables ( $b=-14.0$ ;  $p\text{-value} < 0.001$ ), and frequent consumption of vegetables ( $b=-1.91$ ;  $p = 0.045$ ). Anxiety symptom severity was negatively associated with consumption of green leafy vegetables ( $b=-12.2$ ;  $p < 0.001$ ), root vegetables ( $b=-12.6$ ;  $p < 0.001$ ), and frequent consumption of vegetables ( $b=-2.07$ ;  $p = 0.023$ ).

#### conclusion

Our results suggest fruit and vegetable consumption is associated with reduced depression and anxiety symptoms. We recommend further longitudinal studies examining the interactions between consumption of different categories of fruit and vegetable and mental health problems.



By Dr Herbert Ainamani

#### References

Gibson-Smith, D., Bot, M., Brouwer, I. A., Visser, M., Giltay, E. J., & Penninx, B. (2020). Association of food groups with depression and anxiety disorders. *Eur J Nutr*, 59(2), 767-778. doi:10.1007/s00394-019-01943-4  
Liu, X., Yan, Y., Li, F., & Zhang, D. (2016). Fruit and vegetable consumption and the risk of depression: A meta-analysis. *Nutrition*, 32(3), 296-302. doi:10.1016/j.nut.2015.09.009

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