Household Food Insecurity is Associated with Depressive Symptoms in the Canadian Adult Population

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Introduction

• Depression is the second leading cause of years lived with disability (YLDs) worldwide (1).
• According to the Food and Agriculture Organization, food security exists when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (2).
• No studies have previously examined the association between household food security status and depressive symptoms in the Canadian population.

Objective: To examine the association between depressive symptoms and household food security status among the Canadian adult population aged 18 years or older.

Materials & Methods

• Cross-sectional data from the 2015-2016 Canadian Community Health Survey (CCHS)-Annual Component was used in this study.
• The 9-item Patient Health Questionnaire (PHQ-9) was used to assess the severity of depressive symptoms over the past two weeks.
• Household food insecurity over the past 12 months was measured using the 18-item Household Food Security Survey Module.
• A weighted logistic regression analysis with robust variance estimation technique was used.

Results

• Near 22% of the participants reported mild-to-severe depressive symptoms (14.7% mild; 4.5% moderate; 1.8% moderately severe; and less than 1% severe).
• Of the participants, 8.3% were from households classified as food insecure (5.2% moderately food insecure and 3.1% severely food insecure).
• The prevalence of mild-to-severe depressive symptoms was notably higher in adults living in households with food insecurity (52.0%) than those living in households with food security (18.8%).

Discussion

• Although there are some longitudinal studies (3-4), no consensus has been reached regarding the direction of the causality between food insecurity and depressive symptoms.

Strengths

• Using a large, nationally representative study sample containing a wide range of information.
• Using validated self-administered questionnaires to assess depressive symptoms and food security status.

Limitations

• The cross-sectional design of the study which does not allow interpretation of the direction or causality of the associations.
• Excluding five provinces and two territories that did not participate in depression and household food security assessment.
• Difficulty to classify households into four categories of food security status which is more reliable than the three categories.

Conclusion

• Adults living in households with food insecurity were about three times more likely to report mild-to-severe depressive symptoms than adults living in households with food security, after adjusting for demographic and socioeconomic characteristics.
• Future investigations are required in a longitudinal design to further elucidate the nature of this relationship.

References


Acknowledgements

Fig 1. Flow diagram of the study inclusion/exclusion process

- Depression
- Food Security
- Household Food Insecurity
- Depressive Symptoms
- Multivariable Analysis
- Logistic Regression
- Adjusted Odds Ratio
- Food Insecurity
- No Drugs!
- Participant Evaluation
- worthy

* Education level, employment status, immigrant status and passive smoking exposure were no longer significant in multivariable analysis.

** Significant interactions**: Employment status x Sex (p<0.001); Employment status x Age groups (p<0.03) and Physical activity level x Sex (p<0.001)