Household food insecurity is associated with depressive symptoms in the Canadian adult population

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It is essential to identify factors associated with depression as it is a highly prevalent and disabling mental disorder. The aim of this study was to examine the association between depressive symptoms and household food security status among the Canadian adult population. This is a cross-sectional study of the adult population in the five provinces and one territory (Northwest Territories) of Canada using data from the 2015-2016 Canadian Community Health Survey–Annual Component (n=19,118). Depressive symptoms were assessed using the 9-item Patient Health Questionnaire (PHQ) [no or minimal depressive symptoms (PHQ<5) vs mild-to-severe depressive symptoms (PHQ≥5)]. Household food insecurity was measured using the 18-item Household Food Security Survey Module [Food secure (0-1 affirmative responses) vs food insecure (≥2 affirmative responses)]. A weighted logistic regression analysis with robust variance estimation technique was performed to examine the association between depressive symptoms and household food security status, adjusting for demographic, geographic and socioeconomic characteristics. Approximately 22% of the Canadian adult population reported mild-to-severe depressive symptoms, and 8.3% were from households classified as food insecure. Household food insecurity remained a predictor of mild-to-severe depressive symptoms, after adjustment for other known risk factors (ORadj: 2.87, 95% CI: 2.33-3.55, p<0.001). In the multivariable model, significant associations were also found with multimorbidity, lower household income, a history of illicit drug use, being a current smoker, being a widowed/divorced/separated, obesity and being a nondrinker. In addition, significant interactions emerged between employment status and age (p=0.03); employment status and sex (p<0.001); and physical activity level and sex (p<0.001). In conclusion, household food insecurity was associated with an increased likelihood of having mild-to-severe depressive symptoms in Canadian adults. The cross-sectional nature of the study does not allow to infer causality. Additional research in a longitudinal design are required to further elucidate the nature of this relationship. [Financial Support: University of Saskatchewan]