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Title

Can nutritional intake mitigate the risk of depression associated with adverse childhood experiences?

Priority 1 (Research Category)

Behavioral, psychosocial, and mental illness

Presenters

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Abstract

Context: Adverse Childhood Experiences (ACEs) are predictive of a host of negative health outcomes, including depression. ACEs are also related to decreased fruit and vegetable intake (FVI). While recent research has examined the role of diet in mitigating the relationship between ACEs and depression, the relationship has not been examined at a national level. Finding ways to prevent and mitigate depression is critical as it is one of the leading causes of disability in the U.S.A. Objective: Examine the extent to which FVI mitigates the relationship between ACEs and Depression. Study Design and Analysis: A cross-sectional study that incorporated a two-level multivariable mixed-effects generalized linear models with binomial family and logit link functions. An adjusted odds ratio (aOR) with 95% confidence intervals was reported. Setting or Dataset: CDC state-specific Behavioral Risk Factor Surveillance System (BRFSS) Data from 2019. Population Studied: Individuals from 21 states that collected information on ACEs through an optional module alongside the core section which included depression and FVI information and other social determinants of health in BRFSS data. Intervention/Instrument: For ACEs score, we totaled the number of ACEs categories endorsed by each participant. For FVI, we created a composite score for each participant based on how many times in the last month they ate foods from six FVI categories. We used these scores to sort participants into good, fair, poor, or very poor nutrition groups. Outcome Measures: A single-question measure asking participants if a health professional has ever told them that they had a depressive disorder. Results: While each increase in ACEs score increases the likelihood of depression (range of aOR: 1.52 to 13.0) and each step down in FVI category increases the likelihood of depression (range of aOR: 1.0 to 1.20), our FVI specific subgroup analysis suggests that FVI does not modify the original relationship between ACEs and depression. Conclusions: Our findings suggest that both ACEs and poor nutrition are independently associated with depression, however, FVI may not be sufficient to mitigate the relationship between ACEs and depression. Importantly, our data is limited in that our depression measure does not assess severity or timing of symptoms. Also, our FVI data only captures the most recent month of a few FVI categories. Future studies that address these limitations could lead to more detailed insights.