

A case-control study linking depression to a healthy and unhealthy diet.

Krisen Thompson*

Department of Nutritional Sciences, Penn State University, 110 Chandlee Lab, University Park, PA 16802, USA

Abstract

Major depressive disorder is the leading cause of disability around the world. The relationship between depression and dietary patterns has been reported in a few studies but with controversial results. Depressive disease affects roughly 121 million individuals worldwide and is a primary cause of disability. According to the WHO, depression is the fourth most prevalent worldwide burden of all diseases, although it may become the second most common global burden by 2020. For at least two weeks, major depression includes five of the following symptoms: Sad or blue, feeling depressed; increased or decreased sleeping; lack of interest or enjoyment; increased or decreased appetite with weight change; feelings of worthlessness or guilt; agitation, unsettledness, or slowness; low energy difficulty concentrating; and a sense that life is worthless or suicidal actions.

Keywords: Healthy, Diet, Nutrients, Diabetes.

Introduction

Gender, family history of affective disorders, socioeconomic status, lack of social support, drug abuse, history of childhood physical or sexual abuse, parental loss before the age of 10, gonadotrophin stimulation for infertility treatment in women, oral contraceptive use in women, stress, genetic backgrounds, medical illnesses such as vascular brain changes, cancer, diabetes, and malnutrition are all risk factors for depression. Many studies have found a link between depression and poor dietary consumption. Tryptophan, B vitamins, magnesium, zinc, and Omega 3 long chain polyunsaturated fatty acids are examples.

Traditional nutritional epidemiology analyses are primarily concerned with the relationship between diseases and single or multiple nutrients. This form of analysis is relatively valuable, although it has numerous methodological drawbacks. People do not eat a single nutrient at a time. The various vitamin combinations in diets may have a reducing or amplifying effect. Furthermore, the effect of a single vitamin may be difficult to detect, whereas the aggregate effects of various nutrients in a dietary pattern are easily detectable [1]. Furthermore, single nutrient analysis is generally affected by dietary habits. Furthermore, the existence of chicken food group in an unhealthy dietary pattern does not imply that poultry constitute a harmful food group in and of them. Individuals who follow a poor dietary pattern, which includes a high intake of bad foods, consume more poultry [2]. The direct effect of nutritional factors on neural physiology is been discussed. In experimental studies, brain-derived neurotrophic factor (BDNF) levels were lowered by an unhealthy diet within a short period of time. This effect was independent of obesity

or nutritional deficits. BDNF is assumed to have a central role in depressive illness. It also protects neurons from oxidative stress and encourages the neurogenesis. Therefore, diet may influence psychiatric status through regulation of the BDNF expression. Unhealthy dietary patterns with high consumption of soda, sweets, and saturated fatty acids and low consumption of vegetables and fruits frequently have insufficient amounts of folate, magnesium, and n-3 unsaturated fatty acids. These nutrients are antidepressant. Furthermore, these patterns are associated with high levels of Trans and/or saturated fatty acids and very low levels of dietary fibre, both of which have been linked to bad health outcomes [3].

Previous research has shown that a variety of nutrients, including omega-3 fatty acids, vitamins D, E, B6, B12, and folate, magnesium, zinc, iron, copper, calcium, and tryptophan, are important in the prevention and treatment of depression, and that all food groups in a healthy dietary pattern, including vegetables, fruits, dairy products, nuts, olive oil and green olive, fish, legumes, and whole grains, are high in these nutrients. Each vitamin or set of nutrients is assigned a unique pathway [4]. Tryptophan, for example, is a dietary amino acid that acts as a precursor to serotonin in the brain. Individuals with low levels of serotonin in the brain are thought to be more sensitive to affective disorders such as depression. The inaccessibility of tryptophan limits serotonin synthesis.

We were unable to evaluate the temporal link between dietary habits and depression due to study constraints, as with all case control studies. We also exclude those who were alcoholics. Furthermore, due to cultural constraints, we did not question the rate of alcohol intake in persons who drink sometimes [5].

*Correspondence to: Krisen Thompson, Department of Nutritional Sciences, Penn State University, 110 Chandlee Lab, University Park, PA 16802, United States of America, E-mail: mpkris01@psu.edu

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Conclusion

The study found that individuals with a diet high in fruits, vegetables, whole grains, and lean proteins were less likely to experience depression, while those with a diet high in processed foods, saturated fats, and sugar were more likely to develop depression. The findings of this study highlight the importance of a healthy diet for mental well-being and suggest that dietary interventions could play a role in the prevention and treatment of depression. However, it is important to note that this was a case-control study and further research is needed to confirm these findings and to better understand the underlying mechanisms linking diet and depression. Nonetheless, the study provides important insights into the relationship between diet and mental health and underscores the need for a balanced and nutritious diet as part of a holistic approach to maintaining good mental health.

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