

Food for Thought (and for Health)

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Introduction

Our choice of diet affects our mental health, not just our physical health. While there has been awareness of the importance of “good nutrition” on emotional functioning for many years, the research by Kotowicz and Berk on adult Australian women goes beyond this generalization, by comparing the effect of commonly followed dietary patterns on emotional stability in adult women (Kotowicz & Berk, 2010). The results, as we will see, have implications for individual lifestyles and for public health prevention for all ages, including children and adolescents and their families.

Methods

This study involves a broad sample of randomly selected, adult Australian women, totaling 1,023 women ages 20-93. Habitual diet was carefully assessed through use of a validated, Australian dietary questionnaire. Psychiatric status was determined in two ways. The first involved a face-to-face assessment of each participant, using a specific tool (the Structured Clinical Interview for DSM IV TR Research Version, Non-Patient Edition (SCID-I/NP)). Second, a 12-item, self-report tool, measuring psychological symptoms (the General Health Questionnaire or GHQ-12), was used to determine the presence and severity of psychological/emotional symptoms in each participant. In combination, the SCID-I/NP and the GHQ-12 constituted the basis for determining the mental health status of participants. There was particular focus on depression and anxiety as the symptoms of greatest interest.

Diets were classified according to dietary pattern and also dietary quality. Three common dietary patterns were identified:

1. “The traditional diet,” consisting of mainly vegetables, fruit, beef, lamb, fish, and whole grain foods.
2. “The Western diet,” consisting of meat pies, processed meats, pizza, chips, hamburgers, white bread, sugar, flavored milk drinks, and beer. (The Western diet has often been identified as the diet that puts individuals at high risk of physical health disorders, including diabetes, hypertension, heart disease and stroke).
3. “The modern diet,” consisting of fruits and salads, plus fish, tofu, beans, nuts, yogurt, and red wine.

Dietary quality, as a second variable, was determined according to a coding system that assigns points for the consumption of healthy foods at the recommended levels, based on current nutritional standards.

Potential confounding variables – factors other than diet per se that might also influence of mental health status of participants – were also tracked as part of the study. These included socioeconomic status, degree of alcohol consumption, and cigarette smoking.

Major Findings

Put simply, the Western diet was found to be associated with higher GHQ-12 scores (e.g., more psychiatric symptoms) and with a higher rate of depressive disorders based on interview. Neither the traditional diet nor the modern diet showed an association with the GHQ-12, but the traditional diet was found to be associated with a lower risk of diagnosis of depression and anxiety. Higher diet quality scores for participants, based on the quality of food components consumed and not the specific dietary pattern followed, were associated with lower GHQ-12 scores.

Other Studies

In an editorial in the same journal lauding the above research, Freeman references other recent research that supports the importance of nutrition on mental health (Freeman, 2010). The author cites a prospective study in Spain, which found that the Mediterranean dietary pattern, combining healthy elements of the modern and traditional diets, confers protection against the development of depression. Furthermore, the risk of depression was found to vary based on the degree of adherence to the Mediterranean diet, with increased risk of depression associated with lower diet adherence. There was also a strong inverse association with depression for those individuals with higher consumption of fruits, nuts, and legumes, and a higher rate of consumption of monounsaturated vs. saturated fatty acids : the greater the consumption of these healthy foods, the lower the risk of depression.

In a prospective study in the United Kingdom, a dietary pattern involving high consumption of processed foods was found to be associated with a higher risk of subsequent development of depression. Intake of whole foods, in contrast, had the lowest rate of depressive symptoms. Finally, a study from France is cited, in which an association was found between metabolic syndrome (a medical condition that is often a result of poor nutritional habits, which can involve high cholesterol, increased insulin levels, hypertension, and obesity) and depression.

Discussion

I whole-heartedly agree with the following statement by Freeman: “It is both compelling and daunting to consider that dietary intervention at an individual or population level could reduce rates of psychiatric disorders. There are exciting implications for clinical care, public health, and research.”

I note that the group studied in this research was adults, not children and adolescents, and consisted only of females. In addition, the data demonstrates an *association* between dietary patterns and psychiatric impairment, not a clear causal relationship.

Nevertheless, the research is quite significant, and deserves both additional research and widespread attention at present. Children and adolescents tend to be more sensitive than adults to variables that affect the health and wellbeing of adults. In addition, there is reason to assume that health factors affecting females likely affect males in similar ways. The discovery of an association between two relevant variables (in this case, nutrition and emotional status) alerts the field of the need for additional research, which can often be designed to determine causal relationships. In the interim, even without definitive causal research, compelling associations often lead us to change personal patterns and public policy.

Kotowicz and Berk have investigated the likely impact of dietary *patterns*, not just specific food types, on emotional status. Recent nutritional interest in medicine has been on the impact of dietary patterns on physical health, because dietary patterns reflect the reality of how most people actually eat. Based on this work, we know that what are referred to here as the traditional and modern diets are associated with physical health, while the Western diet predisposes to physical illness. Now we have increasing parallel data regarding the implications of dietary patterns on emotional status, as reflected in emotional health (e.g., the absence of symptoms of psychiatric disorder) vs. increased risk for psychiatric disorder.

The elegance of the above research should not deceive us into thinking that the practical response to the data is simple. Eating habits are dependent on many factors that go beyond food preferences per se, such as family income and the affordability of healthy food, access to healthy food, lifestyle factors such as whether or not there are regular family meals, habitual eating patterns, basic knowledge about nutrition, the influence of the media and advertising, and the possible inappropriate use of food for coping. While there is undoubted benefit to the dissemination of information on nutrition and health, we are painfully aware that drug use, excessive alcohol consumption, and smoking, in addition to poor eating habits, all persist, despite common knowledge of their respective risks.

The findings in this study, and their clinical and public health implications, reinforce the importance of our understanding and embracing the biopsychosocial perspective towards health. An understanding of health and illness is best achieved through an approach that addresses three broad sets of factors that influence an individual: 1) biologically based factors, 2) psychological factors, and 3) social factors. Diet represents an important biologically-based component, with implications for psychological and not just physical functioning. Optimizing healthy dietary patterns at individual and societal levels, in turn, requires attention to all three components of the biopsychosocial triad.

How might the above research be used to constructively benefit children? The role of the family, and in particular mothers, has been recognized as being highly significant in influencing the behavior of their children (Kluger, 2010). So as mothers alter their family's dietary patterns, it can be expected that children will, for the most part, benefit. In the community, school lunches can be modified so that their menus provide more nutritionally and emotionally beneficial foods in appropriate portions; this is already happening in some parts of the country (McGray, 2010). Similar changes can occur in other community settings.

As clinicians, we can ask our families about their dietary patterns and the frequency of shared meals, to complement questions related to substance use, smoking, and exercise. We can also learn more ourselves about healthy foods and dietary patterns, and develop an informed perspective on the appropriateness of recommending specific supplements such as omega-3-fatty acids to our children and families.

At the level of public health, we can promote strategic prevention campaigns to promote both physical and emotional health. Current campaigns against childhood obesity can likely be strengthened, when the additional benefits of good nutrition on emotional health are better understood.

Conclusion

Although the data in the above articles establish an association and not clear causality, there is increasing evidence that one's dietary patterns influence not just physical health but also emotional health. The most common American diet (referred to in the article as the Western diet) is associated with more psychiatric symptoms such as depression and anxiety, and a higher rate of the diagnosis of depression, based on an objective clinical interview, than are healthier diets. A separate finding was that, independent of dietary pattern per se, emotional health is closely associated with high quality diets, as determined based on current knowledge of healthy foods. These findings are consistent with research elsewhere that is cited, and suggest that what is referred to as the traditional diet and the modern diet may promote emotional health, not just physical health.

The implications of this research are broad, and include changes at both the individual and societal levels. There is clear need for additional research. In the meantime, for clinicians, others in human services, advocates, policy makers, and families, there is much to think about and much to consider doing.

References

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