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The Relationship Between Components of the Vegetarian Diet and Perceived Stress and Mental Distress



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Introduction

- Little research has been done on how dietary behaviors and specific food groups may impact the stress response.
- The purpose of this study was to further analyze different components of the vegetarian diet, and how they relate to perceived stress and mental distress.
- The stress response can lead to increased mental distress, if not properly managed.
- Many fruits and vegetables are natural sources of antioxidants, which have been found to be protective against free radical damage (Harvard T.H. Chan School of Public Health, 2021).
- Research has also shown that individuals who met the daily recommended intake of vegetables had a decreased probability of experiencing high levels of mental distress than those who did not (Richard et al., 2015).
- There is not significant research on vegetarian components, as a whole, and its impact on the stress response. Better understanding of this relationship may bring awareness to a modifiable factor that could potentially improve mental health.

Methods

- This study collected data using an anonymous online survey that was distributed through various online platforms.
- The survey asked various questions about demographics, dietary patterns and behaviors, perceived stress, mental distress, and also exercise frequency. The survey included three validated scales: the Food Mood Questionnaire, the Kessler-6 Scale, and the Perceived Stress Scale.
- 585 responses from adults 18 years and older were analyzed through SPSS version 25.0, and Spearman's Rho correlation coefficient.

Results

Results of our study show a negative correlation between many vegetarian items and perceived stress and mental distress.

Food Group	Spearman's Rho Correlation Coefficient with Perceived Stress	Food Group	Spearman's Rho Correlation Coefficient with Mental Distress
Whole Grains	-.103*	Whole Grains	-.147**
Dark Green Leafy Vegetables	-.154**	Nuts and Flaxseed	-.116**
Beans	-.102*	Dark Green Leafy Vegetables	-.153**
Fruit	-.026	Yogurt	-.084*
		Eggs	-.108**
		Raw Oats	-.101*
		Fruit	-.054

** = $p < 0.01$

* = $p < 0.05$

Discussion

- Past research has shown that following a diet designed to reduce hypertension, higher in fruits, vegetables, whole grains, nuts, legumes, and low fat dairy items and lower in processed and red meats showed a relationship with improved mental health (Faghieh et al., 2018).
- We had similar findings regarding whole grains, dark green leafy vegetables and nuts in that these items negatively associated with mental distress in our study. However, we did not find a significant relationship between fruit and mental distress.
- One study found that fruit consumption was negatively associated with psychological distress among women in Iran, but not men (Saghafian et al., 2018).
- Fruit did not show a significant relationship with perceived stress or mental distress in our study. Gender differences could be at play here since this result in our study assessed participants together. Further research is needed to better understand this relationship.
- Our results suggest that multiple components of the vegetarian diet may be negatively associated with perceived stress and mental distress.
- Further longitudinal research should be done on specific foods and portions, as well as specific mental distress symptoms. This could have major implications on the way humans eat and the prevalence of mental health.

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