

The Impact of Diet on Emotional Intelligence and Pathological Eating Behaviors: Exploring Gender Differences

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Abstract

Diet influences emotional intelligence (EI), which can contribute to pathological eating behaviors (PEB). This research explored the relationships between diet, EI, and PEB, and considered potential gender differences. A total of 1,386 participants completed an anonymous survey online. This survey contained demographic questions, the Trait Emotional Intelligence Questionnaire, the Eating Disorder Examination Questionnaire, and the Food Mood Questionnaire. Of this total, 966 identified as female, 376 identified as male, and 44 as other. Data was analyzed using Principal Component Analysis and Pearson Correlation Coefficient in SPSS Version 28.0. Fast-food consumption was negatively correlated with motivation and stress management ($p < .01$), while breakfast consumption had a positive correlation with these factors ($p < .01$). Additionally, males showed a positive correlation with motivation and dietary control/ restrictive eating. In contrast, females exhibited the opposite pattern ($p < .01$). Findings suggest diet affects EI similarly across genders, while EI's link to PEB varies by gender.

Introduction

- Emotional Intelligence (EI) is defined as an individual's ability to manage, perceive, understand, and express not only their emotions, but the emotions of those around them as well (Bru-Luna LM et al., 2021).
- Studies have identified connections between emotional intelligence, diet quality, and disordered eating behaviors.
- Good diet quality is linked to increased whole-grain intake, fruit/vegetable intake, and healthy fats as opposed to intake of processed foods and added sugars (Dalwood P et al., 2020).
- Processed food and caffeine intake, as well as decreased fruit intake and exercise have been linked to increased mental distress in both males and females, which may directly influence one's EI (Begdache L et al., 2020).
- Disordered eating is defined as a wide range of abnormal eating behaviors, many of which are shared with diagnosed eating disorders, but at a lesser frequency or lower severity.
- Emotional intelligence can play a role in disordered eating
 - Lower levels of EI are associated with higher levels of disordered eating attitudes and behaviors (Foye U et al., 2019).
- Sharp increase in eating disorders (ED) among college students post COVID-19, with 51.8% of women having some form of an ED and 31.3% for men (Tavolacci et al., 2021).
- While previous research has suggested a relationship between disordered eating and emotional intelligence, much of the data is specific to females and lacks evaluation of sex differences (Vuillier L et al., 2022). Additionally, direct correlations between diet quality and emotional intelligence remain slim.
- The purpose of this study was to evaluate the impact of emotional intelligence on diet quality and disordered eating behaviors in both males and females.

Methods

- A total of 1,386 participants completed an anonymous survey online.
- The survey contained demographic questions, as well as the validated Trait Emotional Intelligence Questionnaire, Eating Disorder Examination Questionnaire, and Food Mood Questionnaire to investigate the interactive effects between diet, emotional intelligence, and pathological eating behaviors.
- 44 participants were excluded from analysis due to lack of gender specification
- Results were analyzed using Principal Component Analysis and Pearson Correlation Coefficient in SPSS Version 28.0

Results

Table 1. Correlations of Dietary Quality and Emotional Intelligence in Males and Females

EI Variable	Category	Correlation Type	Correlation Value
Stress Management	Males	Breakfast	.192**
Emotion Control	Males	Breakfast	.159**
Emotion Control	Males	Fast Food	-.142**
Pessimism	Males	Meat	-.223**
Difficulty Regulating Emotion	Males	Exercise	-.202**
Difficulty Regulating Emotion	Males	Meat	-.102**
Motivation	Females	Whole-Grain	.095**
Stress Managemnt	Females	Meat	.072**
Pessimism	Females	Whole-Grain	-.097**

* $p < 0.05$ (2-tailed), ** $p < 0.01$ (2-tailed)

Table 2. Correlations of Disordered Eating and Emotional Intelligence in Males and Females

EI Variable	Category	Correlation Type	Correlation Value
Motivation	Males	Restrictive Eating	.072**
Motivation	Males	Control Issues	.150**
Difficulty Regulating Emotion	Males	Weight Concerns	.104**
Pessimism	Males	Weight Concerns	.069*
Difficulty Regulating Emotion	Females	Restrictive Eating	.075*
Motivation	Females	Control Issues	-0.147**

* $p < 0.05$ (2-tailed), ** $p < 0.01$ (2-tailed)

Discussion

- Breakfast consumption was found to be positively correlated with motivation in both males and females.
 - This correlation may imply that early consumption of food equip individuals with the energy needed to take care of their daily responsibilities, indicated by an increase in personal motivation.
- Breakfast consumption was also found to be positively correlated with stress management and emotion control in males.
 - With males exhibiting higher cortisol levels post-meal compared to females (Lemmens et. al, 2011), these results imply that men who engage in consistent breakfast consumption will have increased benefits to those of women as this increased cortisol aids in the metabolism of the glucose within breakfast foods, providing increased stress management and emotion control.
- There was a positive correlation between difficulty regulating emotions and restrictive eating in females, but not in males.
 - This finding suggests that for women, struggles with emotional regulation may contribute to restrictive eating behaviors, potentially as a means of coping with emotional distress. Given the well-documented link between emotional dysregulation and disordered eating patterns in females, these results reinforce the importance of addressing emotion regulation in interventions for women with restrictive eating tendencies (Ruscitti et al., 2016).
- There was a positive correlation between pessimism and weight control in males but not in females.
 - This implies that men who hold a more negative outlook may attempt to regulate their weight more strictly. This pattern suggests that for males, weight control may serve as a coping mechanism for pessimistic attitudes, potentially reinforcing restrictive eating habits (Pänkäläinen et al., 2018).

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References

