

# Celiac Disease and Its Links to Mental Health, Bullying, and Problematic Eating Behaviors: A Narrative Review with a Focus on Gender Differences

## Abstract:

Celiac disease (CD) is an autoimmune disease where damage to the small intestine and malabsorption of nutrients can occur because of the consumption of gluten, a protein found in wheat, barley, or rye. CD is associated with poorer mental health in children, adolescents, young adults, and adults compared to individuals without CD. In women with CD, mental health outcomes tend to be worse than men, particularly increased anxiety and lower psychological well being. This review aims to understand the burden of mental health issues related to CD, particularly anxiety, depression, disordered eating behaviors, bullying and social challenges, and gender-based differences. This review is based on published literature from 1998 and 2025, identified through searches on PubMed. This information is organized in tables for comparison. People with CD are likely to develop anxiety, depression, and problematic eating behaviors. Bullying and social challenges may lead to difficulties in following a GFD. Additionally, this is linked to self-precipitation and performance in children and adolescents with CD. These challenges affect the mental well-being and may influence the ways in which people cope with the challenges such as abnormal eating behaviors.

## Introduction:

- Celiac disease (CD) prevalence worldwide 0.5-1%
- Consumption of gluten→damage of small intestine→malabsorption of nutrients
- Lifelong adherence to a gluten-free diet (GFD)
- Familial and societal costs: Challenges supporting individuals with CD, affecting parental well-being, social activities, and economic stress.

Significance: Understanding these challenges may help increase awareness of mental health issues and bullying, improve support for individuals with CD, and reduce the burden on families

## Methods:

- I completed a narrative review of MEDLINE’s PubMed between 1998-2025
- I assessed the relationship between celiac disease and one or more mental health, behavioral, or social outcomes.
- Organized findings into separate tables (e.g., anxiety and depression, bullying and social challenges, problematic eating behaviors, and gender differences).
- Compared findings from original studies to identify common patterns

## Results:

**Anxiety and Depression:** 1.4-fold increased risk of psychiatric disorders, including mood and anxiety disorders, among children with CD.

**Bullying and Social Challenges:** Bullying, discrimination, lack of awareness, limited GFD options, challenges adhering to a GFD at school, stigmatization, embarrassment, and social withdrawal.

**Problematic Eating Behaviors:** 53% of adolescents with CD following a GFD experienced maladaptive eating behaviors, including rigidity, avoidance, controlling behaviors, and preoccupation.

**Gender differences:** Women with CD experienced lower psychological well-being and greater anxiety compared with men.

## Discussion:

- **Anxiety and Depression:** May be linked to vitamin deficiencies, malnutrition, inflammation, and the burden of adhering to a GFD.
- **Bullying and Social Challenges:** Social environments may influence children’s ability to manage a GFD.
- **Problematic Eating Behaviors:** Shorter GFD adherence may be associate with more maladaptive eating behaviors. Other factors include personality traits, internality, self-efficacy, coping strategies, and social support.
- **Gender Differences:** Greater anxiety among women may be linked to greater disease-related burdens and higher levels of gastrointestinal symptoms that may influence a lower psychological well-being in women.

## Conclusion:

CD individuals are more likely to experience poorer mental health outcomes (e.g., anxiety and depression), bullying, and problematic eating behaviors. Some studies also identified gender differences.

These findings give useful information for making public policy:

- Promoting access to mental health services
- Educating people of CD, bullying, and stigma in schools
- Providing financial support to caregivers and families.

Further research needed:

- Gender differences in anxiety
- Role of GFD in problematic eating behaviors
- Relationship between psychiatric disorders and lower quality of life

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