

# The Impact of Social Wellbeing factors on disordered eating patterns



## Introduction

During the COVID-19 pandemic, eating disorder hospitalizations in Canada increased significantly (Toigo et al., 2024). People diagnosed with eating disorders face 2-5 times higher mortality risk compared to the general population (van Hoeken & Hoek, 2020). de Lauzon et al., 2004 identified three key dimensions of disordered eating behavior: Cognitive Restraint, Emotional Eating, and Uncontrolled Eating, while Leonidas et al., 2014. emphasized the role of personality traits in the development of these behaviors. The following research questions aim to provide insights that could help in the treatment and prevention of eating disorders.

## Research Question

To what extent are the three dimensions of disordered eating (Cognitive Restraint, Emotional Eating, and Uncontrolled Eating) affected by the following aspects of social well-being in individuals?

- Social Phobia
- Personality Traits
- Emotional Loneliness

## Statistical Methods

Three separate multiple linear regression models were fitted, one for each disordered eating behavior, to examine their correlations with the 7 total social well-being factors.

## Models and Results

- Individuals with social phobia exhibit significantly less cognitive restraint ( $\beta = -10.39$ ,  $p = 0.002$ )
- Increased feelings of emotional loneliness are related to a significant increase in cognitive restraint. ( $\beta = 2.75$ ,  $p = 0.03$ )
- Individuals who are more conscientious exhibit significantly less uncontrolled eating. ( $\beta = -0.76$ ,  $p = 0.000$ )
- Increased feelings of emotional loneliness are related to a significant increase in uncontrolled eating. ( $\beta = 1.96$ ,  $p = 0.001$ )
- Individuals who are more open may exhibit less uncontrolled eating. ( $\beta = -0.31$ ,  $p = 0.058$ )
- Individuals who are more conscientious exhibit significantly less emotional eating. ( $\beta = -0.75$ ,  $p = 0.004$ )
- Increased feelings of emotional loneliness are related to a significant increase in emotional eating. ( $\beta = 2.62$ ,  $p = 0.008$ )
- Individuals who are more neurotic exhibit significantly more emotional eating. ( $\beta = 0.88$ ,  $p = 0.003$ )
- Individuals with social phobia exhibit significantly more emotional eating. ( $\beta = 13.65$ ,  $p = 0.035$ )

## Dataset & Sample

The Canadian Social Connection Survey is an online cross-sectional survey designed to study the social health and well-being of Canadians across different socio-demographic groups in the wake of COVID-19. We used a subset of participants from the 2023 cross-sectional study of CSCS (n=285).

## Variables

- Disordered Eating Behavior: Assessed using the Three-Factor Eating Questionnaire (TFEQ-18), scoring three disordered eating patterns: Cognitive Restraint (CR), Uncontrolled Eating (UE), and Emotional Eating (EE) between 1-4. and then scaled between 0-100.
- Personality Traits: Scored using the Big Five Inventory, assessing the five traits: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism.
- Social Phobia: Binary measure (Yes/No), and numeircal score based on the Social Phobia Scale.
- Emotional Loneliness: Scored using the DeJong Gierveld Loneliness Scale.

## Conclusions

↑ = Postive Relationship, ■ = Risk Factor,  
↓ = Negative Relationship ■ = Protective Factor  
(↓)\* : Weak Evidence ( $0.05 \leq p < 0.1$ )

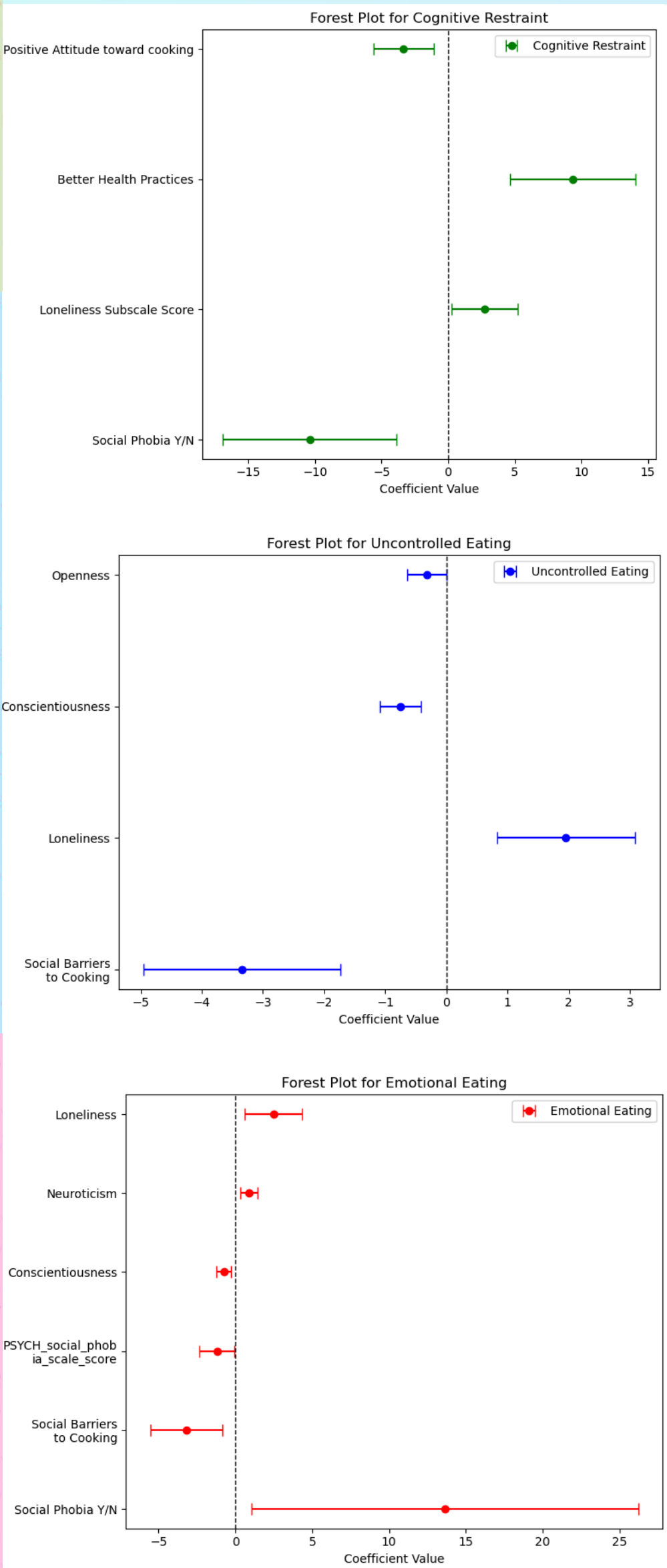
Predictors	Emotional Eating	Uncontrolled Eating	Cognitive Restraint
Social Phobia	■ ↑	-	■ ↓
Loneliness	■ ↑	■ ↑	■ ↑
Conscientious	■ ↓	■ ↓	-
Neuroticism	■ ↑	-	-
Openness	-	■ (↓)*	-

Key Takeaways:

- Loneliness is a Universal Risk Factor risk factor, driving all three disordered eating behaviours.
- Social phobia reduces control (↓ cognitive restraint) and fuels emotional eating.
- Conscientiousness, which is characterized by planning and responsibility, has protective effects against impulsive and emotional eating.
- Neuroticism, or emotional sensitivity, increases emotional eating.

## Limitations

- Our sample size is limited (n=285), which decreases the internal validity of our findings. this is due to the large amount of missing data or non-response in TEQF-18 items and Social Phobia Scale in the pariticipants of the CSCS 2023 Cross-Sectional Study.
- Various suppressor variables from the 2023 Cross-sectional survey, unrelated to the research questions, are required in the MLR model to yield significant correlations ( $p < 0.05$ ) for the variables of interest. This suggests the presence of confounding factors and incompleteness of the model.



## Sources:

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