

**Is there a relationship between eating-related eco-concerns, dysfunctional eating behaviors and psychological distress? Results from a pilot study with network analysis**

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**Abstract**

*Introduction:* The impact of climate change on people's mental health has emerged in the literature, showing that extreme climatic events or their anticipation can cause a specific kind of psychological distress called "eco-emotions". Authors suggested that eco-emotions may also increase the risk of developing eating disorders (EDs) and a new scale to measure this risk has been devised, called Eating-Related Eco-Concern (EREC). While EREC has been shown not to coincide with any specific ED diagnosis, its association with orthorexia nervosa remains unexplored. The current pilot study aimed to delve into the possible connections between EREC, climate change worry, orthorexia nervosa symptoms, ED symptoms, and psychological distress by using network analysis procedures.

*Methods:* People from the general population were recruited through a battery of online self-report questionnaires including EREC, Climate Change Worry Scale (CCWS), Depression Anxiety and Stress Scale (DASS-21), Eating Disorder Examination Questionnaire (EDE-Q) for ED symptoms, and Eating Habits Questionnaire (EHQ) for orthorexia nervosa symptoms.

*Results:* The final sample included  $n=100$  people (females=73, males=25, non-binary=1, other gender identities=1) with a mean age of  $31.62 \pm 10.96$  years. Bootstrap analyses produced adequate results for strength centrality and edge stability of the network. Network analysis showed that the DASS-21 subscales and EREC were the items with the highest strength centrality. Positive associations were also found between EREC and CCWS, EREC and EHQ-orthorexia nervosa symptoms, and CCWS and EDE-Q-ED symptoms. Conversely, negative associations resulted between EREC and DASS-21 anxiety and EREC and DASS-21 depression.

*Discussion:* Results from this pilot study using network analysis show how the EREC construct holds clinical relevance as it can represent a new risk factor for orthorexia nervosa. Indeed, even though no direct link between EREC and ED symptoms assessed through the EDE-Q emerged, findings also showed that EREC in the presence of climate change worry might increase risk of orthorexia nervosa in



the general population. However, future studies with bigger sample sizes and a longitudinal design are needed to further confirm this link.