What food cravings tell us about the quality of our diets
3 August 2020, by Monica Jimenez

Do you dream of ice cream in a Zoom meeting or reach for potato chips as you check the latest COVID-19 stats? You may be experiencing something deeper than a whim, according to a team of scientists at the Human Nutrition Research Center on Aging (HNRCA) at Tufts University.

Far from being a momentary mood, food cravings are linked with both behavioral and biological factors, according to a recent article in the journal Appetite by Amy Taetzsch, N19, Sai Krupa Das, N02, a scientist on the Energy Metabolism Team at the HNRCA and an associate professor at the Friedman School of Nutrition Science and Policy, and others.

Taetzsch, Das, and their colleagues found that heightened food cravings were associated with specific behaviors (poorer diet quality and less healthier eating patterns) and cardio-metabolic characteristics (higher body mass index, or BMI, and waist circumference). They analyzed data from female dependents of active duty and retired military personnel who participated from 2014-2018 in a weight loss and maintenance study by Susan Roberts, lead scientist of the Energy Metabolism Team and coauthor on the article.

"The evidence in the paper shows that food cravings are associated with very important outcomes; therefore it's important to target food cravings which could improve our diet and metabolic health," Taetzsch said.

These findings represent a shift in the paradigm of weight-related interventions. "People have been very focused on changing diet composition and physical activity—those have been the recognized behaviors for weight regulation," Das said. "The subtleties of eating behavior, such as cravings, have been less recognized as amenable to change."

Food cravings have long been categorized as a mere feeling or emotion, according to Das. However, it's becoming clear that cravings may be observable, modifiable responses to an internal or external factors. "Craving is a feeling, but some emerging evidence suggests that it has behavioral aspects as well," Das said. "And with support and behavioral counseling, it can be conditionally changed in order to change the fundamental cravings of a person."

What are food cravings, exactly? In this paper, they are defined via the Food Cravings Questionnaire-Trait, which has 39 questions that measure nine dimensions:

- Intention to consume food
- Anticipation of positive feelings
- Relief from negative states
- Control overeating
- Preoccupation with food
- Hunger
- Emotions
- Triggers
- Guilt
Understanding food cravings is especially relevant in a time when many people are eating at home and experiencing additional stress due to COVID-19. "We can probably agree we are having more food cravings during this time," Taetzsch said. "And the ways we addressed cravings before may not work now."

Taetzsch suggested that in general, mindfulness and planning are good tools to tackle cravings in quarantine. She added that, "It can help to try to differentiate between cravings that are truly biological versus those that are due to an emotional response, and to source the foods in our pantry in a diligent way so our response to craving is not translated to a food choice that is less optimal than we would like."

Many questions remain to be answered about cravings, according to Das. For example, do cravings lead to poor diet and high BMI, or is it the other way around? In older populations, would we see a correlation between food cravings and rates of metabolic disease? Or on the behavioral side, how could interventions be tailored to people with widely different experiences of and approaches to cravings?

Das said she is looking forward to further exploration of this area where human nutrition and behavior intersect. "We all talk about cravings so commonly and ubiquitously in daily life," Das said. "People are looking for every little thing we can to help change eating behavior—and cravings are one promising way to address this."


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