Exposure to sugary breakfast cereal advertising directly influences children's diets

January 7 2019

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High-sugar cereals are heavily promoted to children on TV. The adoption of poor eating habits including excess consumption of sugar

can lead to obesity, a known risk factor for 13 cancers. Children's eating habits develop during the preschool years, and children who are overweight by the age of five are likely to remain overweight into adolescence and adulthood. Unfortunately, many young children have diets of low quality and consume too few fruits and vegetables and too much sugar, salt and fat. A new study led by Jennifer Emond, Ph.D., member of the Cancer Control research program at Dartmouth's Norris Cotton Cancer Center and Assistant Professor in the Department of Biomedical Data Science Geisel School of Medicine hits a notable target in the many diet influences that lead to obesity.

"One factor believed to contribute to children's poor quality diets is the marketing of nutritionally-poor foods directly to children," says Emond. "Brands specifically target children in their advertising knowing that children will ask their parents for those products." Laboratory studies have shown that kids will request and prefer brands they have seen recently advertised on TV, but no study has examined the effectiveness of TV food ad exposure on kids' diets in a real world setting. Emond's study addresses that gap. "We conducted the first longitudinal study among preschool-age children to see how exposure to TV ads for high-sugar cereals influences kids' subsequent intake of those advertised cereals. An important and novel aspect of our study is that we were able to look at brand-specific effects. In other words, does advertising for 'Brand X' cereal relate to an increased intake of 'Brand X' cereal?"

Emond's study, "Exposure to Child-Directed TV Advertising and Preschoolers' Intake of Advertised Cereals" recently published in the *American Journal of Preventative Medicine*. The novel study computed kids' TV ad exposure based on the TV shows they watched on children's network TV. Emond's team purchased an advertising database and actually counted, by brand, the cereal ads that aired on the children's TV network programs each child watched. Parents were asked about the shows their kids watched and what cereals their kids ate in the past

week, every eight weeks, for one year. "We found that kids who were exposed to TV ads for high-sugar cereals aired in the programs they watched were more likely to subsequently eat the cereals they had seen advertised," says Emond. "Our models accounted for several child, parent and household characteristics, and whether the child ate each cereal before the study started. We were able to isolate the effect of cereal advertisement exposure on kids' intake of cereals, independent of all of those other factors." Emond's study is the first naturalistic study to show a direct and concerning link between kids' exposure to TV ads for high-sugar cereal and their subsequent intake of that cereal.

"Efforts to promote and support quality diets at a young age are important to foster the lifestyle behaviors needed to maintain a healthy weight and reduce the risk of chronic disease including many cancers," notes Emond. "Child-targeted marketing of foods high in sugar makes it hard for parents to shape healthy eating habits in our kids. It's hard to even notice sometimes. But, it is modifiable. There are policy-level actions that could be implemented to reduce children's exposure to food marketing and to improve the quality of the foods marketed to kids. And we as parents have the choice to switch to ad-free TV for our children and for ourselves."

Reducing the marketing of high-sugar foods to children may ultimately improve diet quality and reduce the risk of obesity and related chronic diseases among children at the population level.

More information: Jennifer A. Emond et al, Exposure to Child-Directed TV Advertising and Preschoolers' Intake of Advertised Cereals, *American Journal of Preventive Medicine* (2018). DOI: 10.1016/j.amepre.2018.09.015

Provided by Dartmouth-Hitchcock Medical Center