Factors Associated Cue-Elicited Food Craving Among Elementary School Children

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ABSTRACT

OBJECTIVE
To examine factors associated with cue-elicited food craving among low-income elementary school children.

STUDY DESIGN, SETTING AND PARTICIPANTS
A cross-sectional study was conducted with 247 third-to-fifth graders primarily consisting of Hispanic and non-Hispanic white students. The study was held in their classrooms where each participant had access to a laptop computer.

OUTCOME MEASURES AND ANALYSIS
Cue-elicited craving of high-calorie, palatable food was measured using a software program that presented 12 food images. Participants viewed each food image and rated on a five-point scale how much they wanted to eat the food they had just seen. Next, participants selected the image of the food they craved most out of 19 culturally appropriate images.

RESULTS
Male students reported significantly higher cue-elicited food craving than females. Fifth graders reported significantly less food craving compared to their counterparts. Ethnicity was not associated with food craving. Food craving was significantly correlated with sugar-sweetened beverage and sweet intake and inversely correlated with vegetable intake. Additionally, 40.5% of the participants reported Takis (tortilla snacks) as the most craved food and 11.7% chose pizza. Grade was significantly associated with types of craved food.

CONCLUSIONS AND IMPLICATIONS
Cue-elicited food craving appears to be a factor associated with palatable food intake among children. More research is required to determine impact of socio economic status, culture, environmental factors affecting food craving and its influence on overeating and obesity.

MATERIALS & METHODS

Activities were implemented through the Center for Healthy Communities [CHC] (formerly known as the Center for Nutrition & Activity Promotion, or CNAP).

SAMPLE
Study participants were recruited from two elementary schools located in rural Northern California. Students were current third, fourth and fifth graders.

DESIGN
A cross-sectional study was conducted with 247 third-to-fifth graders primarily consisting of Hispanic and non-Hispanic white students with similar socio-demographic backgrounds.

Data Collection
A quantitative surveys was used to collect data to describe and document the intervention outcome. Survey will be developed to measure changes in responses to visual food cues when provided with prompts related to sensory perception and emotions.

Conclusions
Cue elicited food craving may be factor associated with palatable food intake among children. More research is required to determine impact of socio economic status, culture, environmental factors affecting food craving and its influence on overeating and obesity.