Abstract:

Objective: The prevalence of obesity in the United States is increasing and as is the discussion of the obesity epidemic in the mass media. Few studies have tried to determine the effects, if any, that exposure to media content about people being overweight or obese has on individual behavioral outcomes. This study endeavors to determine whether exposure to mass media information about overweight/obesity is associated with certain attitudinal and behavioral outcomes.

Methods: Data on 23,667 adults ages 18 through 103 was collected via Knowledge Networks between January 2005 and August 2011 as part of the Annenberg National Health Communication Survey, an ongoing nationally representative survey that samples approximately 250 participants each month. The data was pooled and analyzed using logistic and ordinary least squares regression to determine the association, when controlling for a number of covariates, between exposure to information in the media about overweight and obesity ($\bar{x}=2.15/\text{sd}=921$), the principal independent variable of interest, and five outcome variables: naming obesity as the number one health problem in the United States today ($\bar{x}=.23/\text{sd}=.421$); trying to lose weight in the past 30 days ($\bar{x}=.458/\text{sd}=.5$); days of exercise per week ($\bar{x}=2.65/\text{sd}=2.19$); servings of fruits consumed each day ($\bar{x}=1.64/\text{sd}=1.33$); and servings of vegetables consumed each day ($\bar{x}=1.89/\text{sd}=1.3$).

Results: When controlling for a number of covariates, exposure to media content about overweight and obesity significantly predicts naming obesity as primary current health problem in the U.S. ($\exp(b)=1.314, \text{ CI}=1.254, 1.376$), reported attempts at weight loss in the past 30 days ($\exp(b)=1.327, \text{ CI}=1.284, 1.371$), days of exercise per week ($b=0.206, \text{ CI}=0.174, .238$), and daily servings of fruits ($b=0.126, \text{ CI}=.107, .145$) and vegetables ($b=0.154, \text{ CI}=1.135, .173$). An interaction between exposure and BMI suggests a potential caveat to this otherwise positive outcome: for people with higher BMI, exposure to information in the media about obesity has significantly greater effects on trying to lose weight ($\exp(b)=1.079, \text{ CI}=1.038, 1.121$), but significantly lower effects on consumption of vegetables ($b=-.029, \text{ CI}=-.050, -.007$), and,
although not statistically significant, weekly days of exercise ($b=-0.035, CI=-0.071, .001$), and consumption of fruits ($b=-0.017, CI=-0.039, .005$).

Conclusions: This study indicates that exposure to mass media information about obesity might improve certain individuals' health behaviors in the directions recommended by the Physical Activity Guidelines and Dietary Guidelines for Americans. Unfortunately, the individuals who appear to be most motivated by exposure to media content about overweight/obesity are not those who are themselves overweight or obese. People with higher BMIs do report trying to lose weight more with higher levels of exposure to media content about obesity, but this could reflect a social desirability bias in reporting as they do not demonstrate higher levels of the behaviors that are commonly associated with trying to lose weight (for example, exercising more and eating more fruits and vegetables). In addition, the study suggests that the more people are exposed to media information about a particular health topic, the greater their relative odds of thinking that the health topic is important, illustrating how agenda setting shapes what people think about and how they evaluate the topics given priority by the media.