

Walsemann examines social factors as predictors of BMI

Race and education are two of the strongest social factors associated with obesity, yet relatively little is known about how these social factors contribute to the rate at which body mass index (BMI) changes over the life course.

Arnold School researcher Dr. Katrina Walsemann received a seed grant in 2008 from the Center for Research in Nutrition and Health Disparities to examine whether racial and educational disparities in BMI widen, diminish, or persist as individuals transition to mid-life, and if the effect of education differed by race.

“Race, gender, and education are social factors that contribute to health disparities, so we are interested in the extent to which these factors, along with mother’s education affect BMI trajectories from late adolescence to mid-life” Walsemann said.

Walsemann and colleagues used multiple waves of data from the National Longitudinal Survey of Youth (NLSY79) to answer their research questions.

The study was completed using the NLSY79, which is a nationally representative sample of males and females who were ages 14-22 in 1979 when they were first surveyed. These participants were interviewed every year until 1994 and are currently interviewed every other year.

The NLSY79 is particularly valuable because the data allows researchers to examine changes in social factors and health as people grow older.

Results indicated that BMI trajectories varied by mother’s and respondent’s education, and these associations differed by race. Lower education among mothers was associated with greater increases in BMI among women from all racial groups and Hispanic men.

Respondent’s education was consistently and inversely associated with BMI among white men and white women, but among black men the association was positive and disparities widened with age.

“These results suggest that among white men and women, greater educational attainment is associated with lower BMI through mid-life, but that among black men greater educational attainment is associated with higher BMI through mid-life.”

Results highlight the importance of examining the interactive effects of education and race when attempting to understand BMI trajectories, as these social factors represent multiple sources of inequality which together can impact obesity development.

The second product that came out of the seed grant is a grant proposal to the National Institutes of Health (NIH). Walsemann and colleagues hope to examine the data from the NLSY study to understand the relationship between educational careers and life course health.

“Education is a more dynamic concept than how it has been traditionally defined where education is completed by the early to mid 20’s. Since the 1970’s educational careers have not been as stable. College

Key Points

- Little is known about how social factors contribute to the rate at which body mass index (BMI) changes over the life course.
- This study used a nationally representative longitudinal sample to examine if racial and educational disparities in BMI widen, diminish, or persist as individuals transition to mid-life, and if the effect of education differed by race.
- Results from this study indicated that BMI trajectories varied by education attainment, and these associations differed by race.
- The social factors examined in this study represent multiple sources of inequality which together can impact obesity development.

is now more of a requirement for good jobs than it was before that time, and during economic recessions people go back to school. Also, many women during the 1980's decided to go back to school. So we are interested in looking at how these educational patterns are related to trajectories of BMI and mental health through mid-life.”

Walsemann said, “The Nutrition Seed Grant was tremendously helpful because it allowed me the opportunity to conduct preliminary work prior to submitting my NIH grant proposal. That, along with the grant development support that the Nutrition Center provided to me as a Seed Grant recipient, was crucial to preparing a high quality NIH grant proposal. I am extremely grateful for the Nutrition Center’s investment in me as a scholar.”