Study confirms link between depression, abdominal obesity

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A new study at the University of Alabama at Birmingham (UAB) confirms the relationship between depression and abdominal obesity, which has been linked to an increased risk for cancer and cardiovascular disease.

"We found that in a sample of young adults during a 15-year period, those who started out reporting high levels of depression gained weight at a faster rate than others in the study, but starting out overweight did not lead to changes in depression," said UAB Assistant Professor of Sociology Belinda Needham, Ph.D.. The study appears in the June issue of the American Journal of Public Health.

"Our study is important because if you are interested in controlling obesity, and ultimately eliminating the risk of obesity-related diseases, then it makes sense to treat people's depression," said Needham, who teaches in the UAB Department of Sociology and Social Work. "It's another reason to take depression seriously and not to think about it just in terms of mental health, but to also think about the physical consequences of mental health problems."

Needham examined data from the Coronary Artery Risk Development in Young Adults (CARDIA) study, a longitudinal study of 5,115 men and women ages 18-30 that aimed to identify the precursors of cardiovascular disease. Needham studied the data to test whether body mass index (BMI) - weight divided by the square of one's height - and waist circumference were associated with increases in depression or

whether depression was associated with changes in BMI and waist circumference during a period of time.

CARDIA study scientists weighed and measured the waist circumference and BMI of study participants. The waist circumference was measured to the nearest half centimeter. CARDIA researchers also asked study participants in years five, 10, 15 and 20 to rank their own level of depression.

"Looking at the CARDIA sample data, we found that everyone, as a whole, gained weight during the 15-year period of time that we examined," said Needham. "However, the people who started out reporting high levels of depression increased in abdominal obesity and BMI at a faster rate than those who reported fewer symptoms of depression at year five. In year five, the waist circumference of the high-depression group was about 1.6 centimeters greater than those who reported low depression. By year 20, the waist circumference of the high-depression group was about 2.6 centimeters higher than those who reported lower levels of depression.

"In contrast, a high initial BMI and waist circumference did not influence the rate of change in symptoms of depression over time," she said.

Needham said there have been reports showing that cortisol, a stress hormone, is related to depression and abdominal obesity. "So, there is reason to suspect that people who are depressed would have higher levels of abdominal obesity versus other parts of the body because of elevated cortisol," she said.

More studies are needed to determine the underlying causes for weight gain among those who reported being depressed, Needham said.