Texas Obesity Research Brief

University of Houston

Spring 2015

Cumulative Stress and Adolescent Weight Status

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Obesity can be influenced by multiple factors within the family environment. Females and males within this environment respond to the stress associated with adverse events differently both behaviorally and physiologically. Differences in stress-related responses likely result in divergent gender disparities in weight status. The overarching goal of the current study was to investigate how three family stress indices - family disruption, financial stress, and maternal poor health - are related to gender disparities in adolescent weight status.

Types of Family Stress

Family stressors are a combination of the following measures:

Family disruption – Marrigage instability, parental incarceration, victim of a violent crime, death of a family member

Financial strain – Poverty, maternal unemployment, maternal endcation less then a high school diploma.

Poor maternal health – Binge drinker, illicit drug use, elevated depression.

Data and Methods

The National Longitudinal Survey of Youth 1979 (NLSY79) and the linked child and young adult files (YA-NLSY) were utilized for a sample of 4,762 adolescents (ages 18 -19 years) born between 1975 and 1991. Three types of family stressors as self-reported by

What we know

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Adolescent overweight and obesity prevalence rates have remained the same for the past 10 years.

Within the family environment there are multiple stressors that can place children and adolescents at risk for obesity.

What we found

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Family disruption and financial stress were positively related to female adolescents being overweight/obese.

Poor maternal health was positively associated with male overweight status.

About the Author

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mothers were measured from youth's birth to age 15 were created and are described above. Young adults self-reported their height and weight. This information was used to calculate and categorize body mass index into the reference criteria for adults outlined by the Center for Disease Control.

Findings

Female adolescents who experienced family disruption and/or financial strain during childhood were more likely to be overweight/obese at age 18. Male adolescents who during childhood resided with a mother who had poor health were more likely to be overweight at age 18.

Application

The current study extends our knowledge of stress and obesity by focusing on how family-level stressors from birth to age 15 contribute to gender disparities in adolescent weight status at age 18. Based on the current findings, obesity intervention programs need to take a broader family-systems approach. These programs could assist families with decreasing family-level stressors by providing access to mental health and financial services, along with family counseling. Further, it is necessary to understand the needs of children and their particular coping strategies during times of stress. Developing appropriate strategies to cope with family-related stress during childhood may assist with maintaining a healthy weight status during adolescence and beyond.

Our Mission

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The mission of the Texas Obesity Research Center is to conduct basic and applied research in obesity prevention, treatment and control. TORC will educate students in an interdisciplinary approach to topics related to obesity and its comorbidities. TORC will enhance collaborations within and among the University community, health professionals, and social agencies on projects related to obesity and centralize efforts to obtain funding from foundations, industry, and the federal government.

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Hernandez, D. & Pressler, E. (2015). Gender disparities among the association between cumulative family- level stress & adolescent weight status. *Prev Med 73, 60-66*