NIH Awards UAMS $1.2 Million to Study Impact of Nutrition on Children’s Behavioral, Mental Health Conditions

LITTLE ROCK — The University of Arkansas for Medical Sciences’ (UAMS) Center for the Study of Obesity will lead a $1.2 million, multiorganization, three-year research project examining how the availability of school meals benefits the mental and behavioral status of youths.

Michael Thomsen, Ph.D., professor in the UAMS Fay W. Boozman College of Public Health Department of Health Policy and Management and director of the center, said the study provides a unique opportunity to understand how school meal policy can impact common childhood behavioral disorders such as attention-deficit/hyperactivity disorder (ADHD).

“We will be able to study whether better access to school meals reduces the burden of behavioral disorders among children who face an elevated risk of food insecurity,” Thomsen said. “We’ll specifically be looking at whether diagnosis or health care use is impacted when schools provide universal free meals, make breakfast available after classes begin (breakfast after the bell) — or even both meal delivery options. Earlier evidence indicates that more children are able to participate in school nutrition when schools are able to take advantage of these meal options.”

“Some children may be dealing with hunger pangs at school,” he added. “Most of us can relate to being hungry. In this situation, it’s easier for a person to lose control or behave in a way that they otherwise wouldn’t.”

The study titled, “The Impact of School Meal Delivery on Behavioral Disorders among Children in Health Disparity Populations,” is peer reviewed and funded by a R01 grant from the National Institutes of Health (NIH) National Institute of Mental Health. The research team will receive slightly over $1.2 million in total funding.

The Arkansas Center for Health Improvement (ACHI) is among the partnering groups on the project. Joe Thompson, M.D., MPH, president and CEO of ACHI, noted that collaborations are vital to making public health strides in Arkansas. This partnership
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takes on increased importance because it is associated with addressing the aftermath of child hunger.

“This project is using data to inform policy through the Arkansas Healthcare Transparency Initiative,” Thompson said. “Food insecurity is a complex issue that overlaps many social, cultural, economic and policy issues. To create actionable insights that guide successful policies, we need to foster strategic partnerships that bridge those areas and ground future decisions in data-based evidence.”

The researchers have three specific aims, spanning gender, ethnicity, age and socioeconomic backgrounds. The aims are:

- Describe variation in medical diagnoses for ADHD, oppositional defiant disorder and conduct disorder
- Quantify the effect of school meal delivery policies and medical diagnoses on disciplinary outcomes and academic achievement
- Determine the effect of universal meals and breakfast after the bell, alone and in combination, on the likelihood of diagnosed childhood behavioral disorders and subsequent service utilization

“Our focus is to help improve mental health outcomes in children,” Thomsen said. “A young person who struggles with concentration or behavior because of food insecurity, may be referred for mental health screenings when what they really need is better nutrition. If it is possible to reduce the burden of childhood mental health conditions through school nutrition programs, that would greatly benefit children and families here in Arkansas and across the United States.”

Findings of the study may also have implications for broader social outcomes including the criminal justice system.

“Data from our earlier research shows that schoolchildren are less likely to face school discipline when meals are more readily available,” Thomsen said. “Arkansas ranks second in the nation for both the percentage of children diagnosed with ADHD and for childhood food insecurity. Other studies show that in addition to food insecurity, suspension or expulsion from school can exacerbate behavioral disorders, which may predispose the child to interactions with the juvenile justice system. Universal free meals and breakfast after the bell increase participation in school meals and are feasible meal delivery options for many schools. Because they remain underutilized, these options may be one way to help curb that trend.”

The researchers are eager to develop new research findings to understand how school meal policies can impact mental health.

“If our preliminary hypothesis holds true, there will be profound implications on school meal policies,” Thomsen said. “What we’re doing is something that can teach the entire nation about school meals. Childhood behavioral disorders are a problem that resonates nationally. We’re uniquely positioned to answer questions about school meals and health

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in Arkansas because of our partnership with ACHI and its investments in statewide data analytics capabilities.”

UAMS is the state’s only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; a hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a statewide network of regional campuses; and seven institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute and Institute for Digital Health & Innovation. UAMS includes UAMS Health, a statewide health system that encompasses all of UAMS’ clinical enterprise. UAMS is the only adult Level 1 trauma center in the state. UAMS has 3,240 students, 913 medical residents and fellows, and five dental residents. It is the state’s largest public employer with more than 11,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children's, the VA Medical Center and Baptist Health. Visit www.uams.edu or www.uamshealth.com. Find us on Facebook, Twitter, YouTube or Instagram.

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