

Diabetes management in youth: Does it matter where you live?

BY: Casey Childers

Dr. Angela Liese was recently awarded an ASPIRE I grant through the Office of Research and Graduate Education at the University of South Carolina. The study examines if the distance to a healthcare provider impacts diabetes management in youth with diabetes. Dr. Angela Liese is a professor in the Department of Epidemiology and Biostatistics at the Arnold School and an affiliated scholar with the Center for Research in Nutrition and Health Disparities.

Previous studies have found healthcare access and distance to a healthcare provider to have an effect in blood sugar control in older adults; however, this will be the first study to examine the role of provider access in children, youth, and young adults with an age range of 5-30.

“Most people don’t know how hard it is to manage diabetes well. They think you can just pop a pill or give shots and you will have blood sugar levels under control. Good management of diabetes takes a lot of effort, so it is important to address the barriers.” Liese said.

Liese explained if the distance to a health care provider were found to impact diabetes management, then a next step may be to consider telecare and mobile health approaches which could supplement in-person care.

“If distance mattered, we could look at these solutions. Younger people with diabetes may be especially open to this type of care,” Liese said.

The ASPIRE II study uses data from a larger longitudinal study called SEARCH for Diabetes in Youth. The SEARCH surveillance and cohort study has been ongoing in South Carolina for 14 years at three sites in Greenville, Columbia, Charleston, and at four other locations nationally. SEARCH is the largest and most geographically diverse sample of youth with all types of diabetes ever assembled in the U.S. The presents study will focus only on South Carolina.

The ongoing SEARCH study has two purposes: 1) identify all new cases of diabetes in South Carolina and 2) follow up with children in the program long-term to track possible complications of diabetes, such as cardiovascular disease, changes to retina and damage in the eye, kidney problems and nerve damage, especially in the lower limbs. Conducting a

Key Points

- It can be difficult to manage diabetes. In the U.S., there are high rates of complications related to diabetes. People that can better manage their blood sugar levels are at less risk of complications and enjoy a better quality of life.
- This study examines if having a health care provider and the distance to a health care provider impacts diabetes management.
- This study uses data from a larger longitudinal study called SEARCH for Diabetes in Youth.

longitudinal study has taken a lot of time and resources and excellent research staff who have built trust with participants.

“We have good participation despite all the barriers, such as taking kids out of school, getting time off from work, and the issues with fasting before an appointment,” Liese said.

Liese reported another benefit to being involved in diabetes research: being able to inspire the next generation of researchers to tackle these issues.

“One of the best parts of this research is working with public health students. It makes my day to be able to address an important research question, while teaching the next generation the significance of this work,” Liese said.

The research team is comprised of Flora Xionan Ma, a doctoral student in the Department of Epidemiology and Biostatistics; James Hibbert, Geographer for the Center for Research in Nutrition and Health Disparities; Jan Probst, professor in the Department of Health Services Policy and Management and director of the South Carolina Rural Health Research Center; Jan Eberth, assistant professor in the Department of Epidemiology and Biostatistics; and Bethany Bell, assistant professor in the College of Education.