

Youth with abnormal heart rhythms more likely to have ADHD, anxiety, depression

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Children and teens with abnormal heart rhythms (cardiac arrhythmias) are more likely to have depression, anxiety and attention deficit hyperactivity disorder (ADHD) compared with those of similar ages without chronic medical conditions or with certain select chronic childhood diseases, according to preliminary research to be presented at

the American Heart Association's Scientific Sessions 2019—November 16-18 in Philadelphia.

Higher rates of depression, anxiety and ADHD have previously been described in [young adults](#) born with structural heart defects (congenital heart disease).

"This may be the first study of this size looking at children and teenagers with various [cardiac arrhythmias](#) (but without structural heart disease) that have been diagnosed with or are taking medication for anxiety and/or depression," said Keila N. Lopez, M.D., M.P.H., lead author of the study, medical director of Cardiology Transition Medicine and assistant professor of pediatrics in the Division of Pediatric Cardiology at Texas Children's Hospital-Baylor College of Medicine in Houston. Dr. Lopez is also a member of the American Heart Association's Congenital Cardiac Defect Committee.

The researchers analyzed the records of more than a quarter of a million children admitted to or seen in the emergency room of Texas Children's Hospital between 2011 and 2016. They reviewed data on more than 7,300 children with [abnormal heart rhythms](#) and compared them to children with congenital heart disease, cystic fibrosis, sickle cell disease and children with none of these chronic conditions (controls). "We chose cystic fibrosis and sickle cell disease because they are chronic diseases that are managed with medications and usually involve multiple hospitalizations," Lopez said.

They found:

- More than 20% of kids with arrhythmias, congenital heart disease and cystic fibrosis had been diagnosed with or prescribed medication for depression and/or anxiety, compared with 5% of children with sickle cell disease and 3% of the control group.

- Kids with arrhythmias were nine times more likely to be diagnosed or treated for anxiety and/or depression and almost five times more likely to be diagnosed or treated for ADHD, compared to kids without any of the identified chronic diseases in the study.
- Kids with arrhythmias were one and a half times as likely to be diagnosed or treated for anxiety and/or depression than those with [cystic fibrosis](#), and more than five times as likely to be diagnosed or treated for anxiety and/or depression than those with [sickle cell disease](#).

"It is important to take care of children's arrhythmias as well as their mental health. Screening for anxiety and/or depression should be considered in children and adolescents cardiac arrhythmias and other chronic diseases," Lopez said.

This research suggests, "there's an entire population of kids out there with abnormal heart rhythms who don't have [congenital heart disease](#) who may be suffering very specifically and significantly from depression and ADHD that we need to potentially identify and treat to improve their quality of life," said Bradley S. Marino, M.D., M.P.P., M.S.C.E., immediate past chair of the American Heart Association Lifelong Congenital Heart Disease and Heart Health in the Young (Young Hearts) Council, who was not involved in the study.

Provided by American Heart Association

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