Medical Xpress

Can metformin reduce obesity in children and adolescents?

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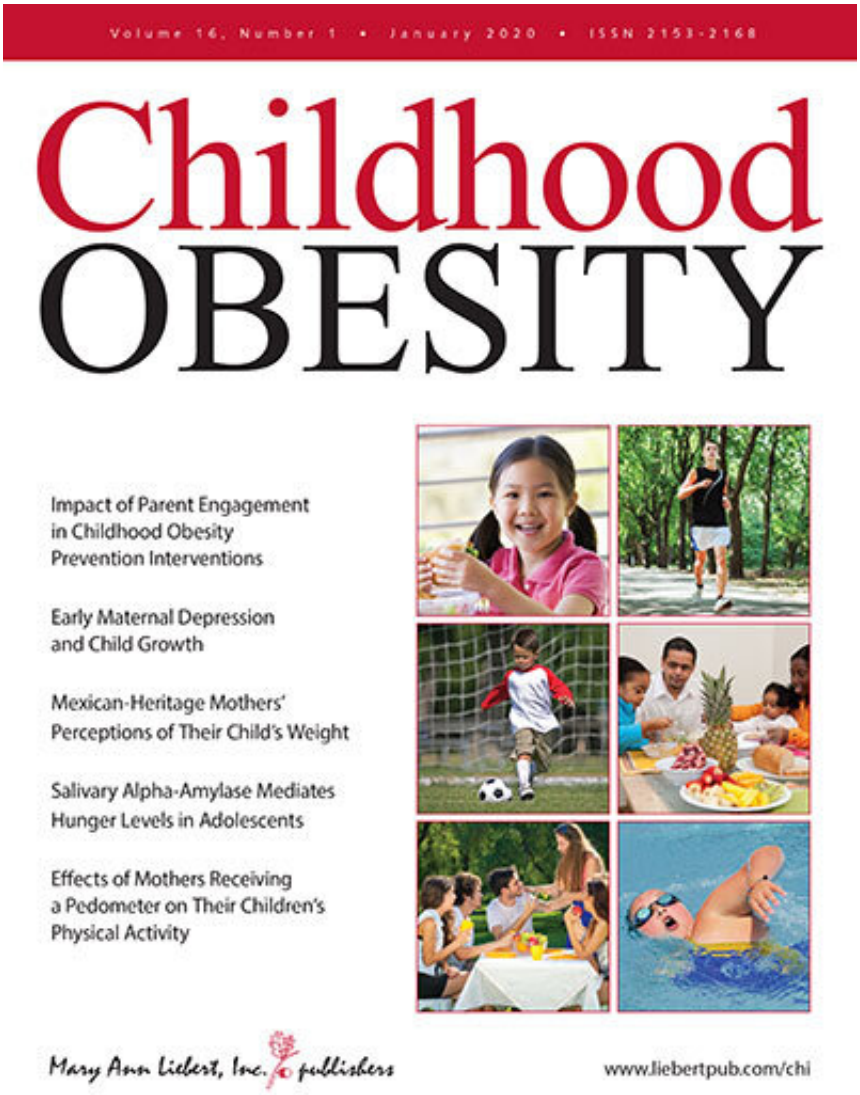

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A new study has shown metformin—a glucose-lowering drug commonly used to treat diabetes—to be effective at lowering some measures of obesity in children and adolescents. The results of a systematic review and meta-analysis are published in *Childhood Obesity*.

The article entitled "Metformin Therapy Reduces Obesity Indices in Children and Adolescents: A Systematic Review and Meta-analysis of Randomized Clinical Trials" was coauthored by Alireza Milajerdi, Tehran University of Medical Sciences (Iran) and colleagues from Tehran University of Medical Sciences and University of Utah (Salt Lake City). The researchers searched the medical literature for randomized clinical trials that examined the effects of metformin use on obesity measures in children and adolescents. Overall, they found significant reductions in body mass index (BMI), body weight, waist circumference, and fat mass, but not in lean body mass. However, the reductions in BMI and waist circumference were not significant in the youngsters who were overweight or obese.

"Metformin, a pharmaceutical, has been a staple in the treatment of diabetes. Some have been interested in whether this pharmaceutical might also reduce body fat," says *Childhood Obesity* Editor-in-Chief Tom Baranowski, Ph.D., Baylor College of Medicine, Houston, TX. "Alereza Sadeghi and colleagues found 38 articles that tested this relationship among children and adolescents. Their important findings need to be explored in additional research, especially why metformin did not affect adiposity in some groups. These findings could be an early step in establishing the clinical use of metformin for weight management in children.""

More information: Alireza Sadeghi et al, Metformin Therapy Reduces Obesity Indices in Children and Adolescents: A Systematic Review and Meta-Analysis of Randomized Clinical Trials, *Childhood Obesity* (2020). DOI: 10.1089/chi.2019.0040

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