

Researchers find what's missing in teen health programs

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Adding a mental health component to school-based lifestyle programs for teens could be key to lowering obesity, improving grades, alleviating severe depression and reducing substance use, a new study suggests.

As a group, high-school students who participated in an intervention that emphasized cognitive behavioral skills building in addition to nutrition and physical activity had a lower average body mass index, better social behaviors and higher health class grades and drank less alcohol than did teenagers in a class with standard health lessons.

Symptoms in teens who were severely depressed also dropped to normal levels at the end of the semester compared to the control group, whose symptoms remained elevated.

Most of the positive outcomes of the program, called COPE, were sustained for six months.

Thirty-two percent of youths in the United States are overweight or obese, and suicide is the third leading cause of death among young people age 14 to 24, according to the Centers for Disease Control and Prevention. Yet most school-based interventions don't take on both public health problems simultaneously or measure the effects of programs on multiple outcomes, said Bernadette Melnyk, creator of the COPE program, dean of The Ohio State University College of Nursing and lead author of the study.

"This is what has been missing from prior healthy lifestyle programs with teens – getting to the thinking piece. We teach the adolescents that how they think directly relates to how they feel and how they behave," said Melnyk, also Ohio State's chief wellness officer.

"This program dropped scores of severely depressed teens almost in half. Less than 25 percent of adolescents who have [mental health problems](#) get any help, and here we have an intervention that addresses that suffering and also can prevent or reduce obesity."

The study is published in the *American Journal of Preventive Medicine*.

A total of 779 high-school students age 14 to 16 in the Southwestern United States participated in the study. Half attended a control class that covered standard health topics such as road safety, dental care and immunizations. The others were enrolled in the intervention Melnyk and colleagues were testing for its effectiveness – a program called COPE: (Creating Opportunities for Personal Empowerment) Healthy Lifestyles TEEN (Thinking, Emotions, Exercise, Nutrition).

Melnik began developing COPE more than 20 years ago while she was a nurse practitioner at an inpatient psychiatric unit for children and adolescents. The program is based on the concepts of cognitive behavioral therapy, with an emphasis on skills building.

It's not counseling in the classroom, however: The entire COPE curriculum, a blend of weekly 50-minute behavioral skills sessions, nutrition information and physical activity over the course of 15 weeks, is spelled out for instructors in manuals and PowerPoints. This study was the first to test COPE's effectiveness when taught by trained teachers in a health classroom setting. In pilot studies, Melnyk and her team have taught the curriculum themselves.

"These are skills that I can teach a variety of professionals how to deliver, and they don't have to be certified therapists," said Melnyk, also a professor of pediatrics and psychiatry.

At its core, the COPE program emphasizes the link between thinking patterns, emotions and behavior as well as the ABCs of cognitive behavioral skills building: activator events that trigger negative thoughts, negative beliefs teens may have about themselves based on the triggering event, and the consequences of feeling bad and engaging in negative behavior as a result.

"We teach kids how to monitor for activator events and show them that instead of embracing a negative belief, they can turn that around to a positive belief about themselves," Melnyk said. "Schools are great at teaching math and social studies, but we aren't giving teens the life skills they need to successfully deal with stress, how to problem-solve, how to set goals, and those are key elements in this [healthy lifestyle](#) intervention."

COPE also includes nutrition lessons on such topics as portion sizes and social eating and 20 minutes of movement – dance, dodge ball, taking a walk, anything to keep the students out of their seats.

Among the participating teens, 68.3 percent self-identified as Hispanic and 51.5 percent were female. More than half began at a healthy weight, with 19 percent considered overweight and 23.4 percent in the obese category for their age. Almost 10 percent of the adolescents reported having anxiety and depression symptoms.

Immediately after the programs ended, COPE students' outcomes exceeded the control group's, on average, in several areas: 4,061 more steps per day; a significantly lower average [body mass index](#) (BMI); better scores in cooperation, assertion and academic competence – all

social skills that are rated by teachers; and lower alcohol use – 12.96 percent of COPE teens compared to 19.94 percent of adolescents in the control class.

The BMI improvements in COPE teens held for six months, and a trend toward lower alcohol use among COPE teens was maintained. In addition, 97.3 percent of COPE teens who started at a healthy weight remained in that category six months later, while only 2.7 percent moved to the overweight category. In comparison, of teens in the control group who started at a healthy weight, 91.2 percent remained in that category, with 7.3 percent progressing to overweight and 1.5 percent moving to the obese category.

Melnyk noted that it's not possible to tease out exactly which component of the program has the most profound effect on [teens](#), but it is likely to be the combination of all of them together.

"I believe it has to be the combination," she said. "You've got to have a nutrition piece to teach them how to eat healthier and resist unhealthy eating to make themselves feel better. And they've got to be more active. But a very key piece is the mental health and cognitive piece."

Two school systems and a YMCA chapter in Ohio have adopted COPE. Melnyk plans to continue testing the program in schools in other areas of the country.

Provided by The Ohio State University

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