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Getting kids to think about good health through science — and summer fun

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Roxana Colina, 15, from Coral Gables Senior High School, gets a plyometric workout.

Middle and high school children who participated in a free, six-week summer camp at UM have left healthier and learned life lessons on fitness and nutrition.

About 100 students from seven Miami-Dade schools took part in a free, six-week Translational Health in Nutrition & Kinesiology (THINK) program held at the University of Miami. Schools included Coral Gables High, Carver Middle, Kenwood K-8, William H. Turner Technical Arts, Coral Reef High, Ada Merritt K-8 Center and Miami Northwestern.

Working with physiological measuring machines used to analyze college and pro athletes' fitness markers — including a heated water tank that measures body fat composition — the teens learned the principles of nutrition, fitness and exercise physiology.

They did 5K power walk/runs, weightlifting and learned to read food labels. They pumped their legs on special exercise bikes while hooked to computers that monitor anaerobic conditioning. They learned about the heart's function and how to take their own pulse.

"They are conditioned to be lazy but it's about getting them to believe they can be active," said team leader Amanda Price, 23, a doctoral student at the UM who just finished leading her group of kids in plyometrics, exercises that use bursts of energy such as jumping.

"They are at the age where they can make a choice. They begin to understand the years we slide in college. They can make a decision now to help themselves down the road," she said.

In addition, the students listened to lectures on nutrition and maintained health logs. In its fifth year, the program expanded to include seminars on job interviewing, résumé writing and literacy training.

"We introduce them to so many things, like spinning classes at the Wellness Center. How many of them have ever done a spinning class?" said team leader Jessica Knurick, 24, a master's degree student in exercise physiology and nutrition at Pennsylvania's East Stroudsburg University. Knurick led a group of kids in first aid training and team building. As an intern in the program, Knurick hopes to bring principles from THINK home to her school and community in the fall, she said.

But, more importantly, "the students learn how to take these concepts regarding their health — exercise, physical activity and nutrition — and apply it to their own daily habits," said Arlette Perry, chair of the Department of Kinesiology and Sports Sciences at the University of Miami.

That's why Fausto Rivera, 13, an incoming freshman at Coral Gables High, and Eric Richardson, 16, a Gables junior, are trying to master the mechanics of the jump rope on a steamy afternoon on the university lawn.

"This is the kind of exercise I didn't know about, but physically I have more stamina now," Fausto said between hops. The THINK program, he said, will help him succeed at soccer come the school year.

"I'm not staying home and being lazy, I'm out doing something instead," added Eric.

The studying didn't end with the final 5K dart around campus. The students will be monitored during the academic year. The test results from the 2010 bunch proved eye-opening in a recent pilot study at the university.

"They made terrific gains in cardiovascular endurance and muscular strength" during the summer program "but when we got them back in December, about five months after it began, the gains remained," Perry said.

For instance, the kids' scores on a cardiovascular fitness endurance run (PACER) and an upper body muscular endurance push-up test (PUSH) remained elevated above baseline by 45 percent and 27 percent, respectively, wrote program coordinator and UM doctoral student Elizabeth Skidmore Edwards in her dissertation.

"The numbers declined from camp but they were still elevated from June. The washout time for a typical aerobic variable is a month or two."

The results of the program, supported by a grant of \$120,000 from the Children's Trust, are significant, Perry believes. Minority students, particularly girls, face the greatest decline in physical activity at the start of ninth grade, which is the average age and demographic makeup of the children.

"It's a time when weight becomes a problem ... and obesity tracks much more closely from adolescence into adulthood. This is a key time to lay down positive habits and the idea of the THINK program is to get them to think about what they are doing," Perry said.

Khaitlyn Hatcher, 17, is among those students from last year who were evaluated for the study in December. She returned for a second summer to take part and to mentor the younger kids. "I wanted to come back and help teach the kids about weight and keeping it down and to maintain a healthy lifestyle."

The Miami Northwestern senior said she has lost between 30 and 40 pounds since her sophomore year by eating portions of rice and meat about the size of her fist. She has also added more greens, something she previously eschewed.

Isaac Bischoff, 14, a Coral Reef freshman, also made a return appearance to the camp. "I had a fatty liver and I had to learn to eat healthier. This program really helped. I lost 30 pounds and that will really make a difference."

Isaac figures on making a splash with his school's swim team, where he'll specialize in the butterfly and freestyle.

Perry hopes that THINK can return for a sixth summer, although the program leaders are seeking additional funding.

"Every year gets stronger," Perry said. "We're trying to get them to take this back to their own community. I don't only want this open to students who can afford it, we want it open to everyone."

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