

Project Aspire Partners with Touro-Harlem Medical Library and Touro College of Pharmacy on Medication Safety Program

After winning a \$30,000 federal grant to create a health literacy program for underserved populations, Touro-Harlem Medical Library partnered with the Touro College of Pharmacy and Project Aspire to develop Healthstart!, a new curriculum that teaches medication safety to young students and features an animated rap video created by seven-time Emmy Award winner Ian Ellis James.

Under the community outreach grant from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services, the curriculum was taught for the first time in March 2011 at P.S. 197 in Harlem, where Touro's Project Aspire public health and education initiative teaches students about the importance of exercise and healthy living choices and encourages them to pursue professions in the health care field. Touro was one of only two recipients of the competitive grant in the mid-Atlantic region, the other being Drexel University.

"This was an effort from three different types of units of Touro: the library, a service unit; the College of Pharmacy, an academic unit, and the Children Health Education Foundation's Project Aspire, an outreach unit, and it also involved cooperation with P.S. 197," said Shelly Warwick, Ph.D., director of the Touro-Harlem Medical Library. "It's a very interesting model for a grant."

Dr. Craig Kovera, an associate professor at the Touro College of Pharmacy and co-project manager of the grant with Dr. Warwick, said Touro-Harlem Medical Library received the grant partly due to the collaborative effort. "We utilized the childhood education expertise of Project Aspire Directors Nicholas Aiello and Stephen Phillips who have a relationship with P.S. 197 in Harlem that allowed us to go



Scene from Healthstart!
"Medi-Ready" DVD on
medication safety

into the school and disseminate our program. This was a great opportunity for interdepartmental collaboration."

The curriculum included interactive group learning sessions and a brief DVD called "Medi-Ready" that utilized rap lyrics and animation to teach children in grades K-2 about the dangers of taking medication without their parents' permission and mistaking prescription drugs, over-the-counter medicine and vitamins they might find on a dresser or countertop for candy.

According to literature from the American Association of Poison Control Centers (AAPCC), there were 36,029 U.S. cases of children under the age of six who took or were given the wrong medication in the year 2007. According to AAPCC's National Poison Data System (NPDS), which includes the New York City Poison Control Center and

the Long Island Poison and Drug Information Center, the pharmaceutical poisonings most frequently reported to the NPDS for children five years and younger are analgesics like acetaminophen, cough and cold medications and vitamins, totaling more than 229,000 exposures per year.

The “Medi-Ready” video instructs students to be proactive and ask questions about their medications and to tell their parents or guardians about symptoms they experience when taking medication.

“We adored the video but more importantly you can see how engaged the kids are when they watch it,” said Project Aspire Executive Director Stephen Phillips. “No matter what class we showed it to, you could see the kids were totally absorbed by it. And the initial efficacy of the curriculum was terrific, more than we could have ever hoped for.”

Project Aspire had previously worked with Mr. James, also known by his theater stage name Electric Black, through its partnership with Harlem Hospital’s Hip Hop Stroke and Hip Hop H.E.A.L.S. programs. (See story on p. 32) A former Emmy Award-winning writer for

“Sesame Street,” Mr. James created an animated DVD called “Stroke Ain’t No Joke” for Harlem Hospital and the National Stroke Association that features legendary rapper and beat boxer Doug E. Fresh rapping about how to recognize the symptoms of stroke.

In addition to the video, the grant covered the creation, reproduction and dissemination of posters, flash cards, handouts and other materials that included information about pharmaceutical safety such as how to read medication labels or recognize medicine look-alikes, as well as the phone number of poison control. The grant also funded the creation of an e-mail information line to provide the community with a continuing resource on medication safety.

Pre- and post-assessment data that compared the children’s understanding of how medications in the home can lead to accidental poisoning before and after the curriculum was implemented are still being analyzed, but Dr. Kovera said a preliminary review of the data suggests the results will be positive.

In addition, a series of drawings the children made when asked to draw their favorite part of the “Medi-Ready” video is being analyzed. “We’re trying to figure out an evidence-based standardized way to score these drawings,” said Dr. Kovera. “In other words, how do the images drawn by the children pertain to key safety messages presented in the video and reinforced in the curriculum?”

The goal now is to expand the program to other schools in Harlem and eventually throughout the country, and also to focus on successive age groups, up through high school seniors.

“We’re looking into some other grants now to implement pharmaceutical safety curricula for older children in middle school and high school but what we would hope to do in terms of this particular curriculum is to get other schools or people to underwrite delivering it,” said Dr. Warwick. “The development of the curriculum was the expensive cost but to

From left to right, Dr. Craig Kovera and Dr. Shelly Warwick conduct pharmaceutical safety workshop for teachers at P.S. 197





deliver it to other schools would be very inexpensive and involve only reproduction of the materials.”

When the Healthstart! program launched, Project Aspire took six classes of P.S. 197 students in grades K-2 to the Touro College of Pharmacy in Harlem where pharmacy staff and graduate students collected pre-assessment data from the children. The P.S. 197 students pressed numbers on electronic clickers that corresponded to their answers to multiple-choice questions about pharmaceutical safety, posed via photographs and images projected on a screen.

Dr. Kovera said he was so impressed with the use of the technology to collect the pre-assessment data on medication safety so quickly from so many young students—162 children in less than three hours—that he is planning to publish an academic article about the issue.

“It was one of the most remarkable things I’ve ever experienced in an academic setting,”

he said. “I’ve never seen something like this done with children that young before. With very brief training on how to use the device and minimal assistance from one doctoral pharmacy student paired with each child, these students with very basic literacy skills answered questions about medication safety via clicker devices so that all the data was then captured electronically.”

The Touro-Harlem Medical Library, which opened in September 2007, provides information and resources in the areas of basic science, bio-medicine, health, pharmacy and public health to support the curriculum and research goals of the Touro College of Osteopathic Medicine, the Touro College of Pharmacy and Touro’s Master of Science in Interdisciplinary Studies.

“Given that the College of Pharmacy and the library are so new, we are very proud to have received such a prestigious award,” Dr. Warwick said.

Touro College of Pharmacy staff and students help Project Aspire students register electronic responses to questions about pharmaceutical safety