



# School Safety Newsletter

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## The New D.A.R.E. Program—This One Works

The “keepin’ it REAL” substance-abuse curriculum focuses on elementary and middle-school students’ decisions, not drugs

By Amy Nordrum, Scientific American, September 10, 2014

<http://www.scientificamerican.com/article/the-new-d-a-r-e-program-this-one-works/>

If you were one of millions of children who completed the Drug Abuse Resistance Education program, or D.A.R.E., between 1983 and 2009, you may be surprised to learn that scientists have repeatedly shown that the program did not work. Despite being the nation’s most popular substance-abuse prevention program, D.A.R.E. did not make you less likely to become a drug addict or even to refuse that first beer from your friends.

But over the past few years prevention scientists have helped D.A.R.E. America, the nonprofit organization that administers the program, replace the old curriculum with a course based on a few concepts that should make the training more effective for today’s students. The new course, called keepin’ it REAL, differs in both form and content from the former D.A.R.E.—replacing long, drug-fact laden lectures with interactive lessons that present stories meant to help kids make smart decisions. Beginning in 2009 D.A.R.E. administrators required middle schools across the country that teach the program to switch over to the 10-week, researcher-designed curriculum for seventh graders. By 2013, they had ordered elementary schools to start teaching a version of those lessons to fifth and sixth graders, too. "It's not an antidrug program," says Michelle Miller-Day, co-developer of the new curriculum and a communications researcher at Chapman University. "It's about things like being honest and safe and responsible." Even so, keepin’ it REAL has reduced substance abuse and maintained antidrug attitudes over time among students in early trials—an achievement that largely eluded the former iteration of the program-

D.A.R.E.’s original curriculum was not shaped by prevention specialists but by police officers and teachers in Los Angeles. They started D.A.R.E. in 1983 to curb the use of drugs, alcohol and tobacco among teens and to improve community-police relations. Fueled by word of mouth, the program quickly spread to 75 percent of U.S. schools.

But for over a decade research cast doubt on the program’s benefits. The Department of Justice funded the first national study of D.A.R.E. and the results, made public in 1994, showed only small short-term reductions in participants’ use of tobacco—but not alcohol or marijuana. A 2009 report by Justice referred to 30 subsequent evaluations that also found no significant long-term improvement in teen substance abuse. "Thirty years ago, everyone believed that if you just told students how harmful these substances and behaviors were—they'd stay away from them," says Frank Pegueros, president and CEO of D.A.R.E. America. "I've actually had officers tell me, 'You mean I was doing it wrong for 15 years?' Evidently, we were."

Behavioral scientists started to suggest a different approach as early as 1998, based on research into successful behavior-change techniques. Instead of bombarding students with information in 45-minute lectures, they called for a hands-on program that would build communication and decision-making skills and let children rehearse these tactics via role play. Eventually D.A.R.E. started to search for a new curriculum, and the program’s scientific advisory board selected keepin’ it REAL from over 200 listings on a national registry of evidence-based programs maintained by the U.S. Substance Abuse and Mental Health Services Administration.

Now instructors speak only for about eight minutes during each lesson, partly so students can spend more time practicing tough decisions in activities with their friends. "If we teach good decision-making skills, it should transfer from one high-risk behavior to the next," Pegueros says.

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## The New D.A.R.E. Program—This One Works (continued)

Sgt. Christine Rapp, who has been a full-time D.A.R.E. officer at the Hancock County Sheriff's Department in Indiana for 16 years, says these exercises are as popular in the classroom as they are with prevention researchers. "The interaction and group work is awesome because we learn by doing—much more than just by hearing," Rapp says. "When [students] learn the ways to say no to friends, they absolutely love getting up in front of the class and acting those out." Officers teach four ways to say no: *Refuse, Explain, Avoid* and *Leave* (hence the acronym).

The elementary curriculum focuses on developing these four basic skills, says Michael Hecht, a communications researcher at The Pennsylvania State University who developed keepin' it REAL with Miller-Day. And the middle-school curriculum, intended for seventh graders, has the students apply the guidance much more to drugs. The four strategies that make up the acronym were teased from 300 interviews that the two researchers conducted with kids across the country.

Hecht and Miller-Day have authored several of the handful of studies that demonstrated the program's effectiveness and convinced the D.A.R.E. scientific advisory board to adopt it. The largest one, published by Hecht, Miller-Day and their colleagues in 2003, asked 6,000 students to fill out questionnaires about their use of alcohol, tobacco and marijuana at several points over a two-year period. The reports from students who completed keepin' it REAL indicated that they sampled these substances less than those in a control group, and used a wider variety of strategies to stay sober. Their antidrug attitudes were also more likely to stick over time. A subset of that study with 1,300 students who were already using drugs, showed that the program reduced substance use at a rate that was 72 percent higher than the control group. Steven West, a rehabilitation counselor at Virginia Commonwealth University who once published a meta-analysis showing D.A.R.E. to have negligible effects, is encouraged by these results. "They are going the right route now—it's based in science," West says.

Richard Clayton, a retired prevention researcher formerly of the University of Kentucky, was also once an outspoken critic of D.A.R.E. but has since been responsible for many science-based improvements to the program after it invited him to join its board of directors and chair its scientific advisory council, which is now stacked with prevention researchers. "They listened to the notion that comes from the literature that you need to be interactive—not didactic lecturing," he says. "I think what they've done is pretty amazing."

West and Clayton also argue that the D.A.R.E. program is worth saving, because it has built a remarkable network of schools and police stations that have proved willing to work together to encourage kids to lead smart, healthy lives. With that network firmly in place, D.A.R.E.'s biggest responsibility is finding the best way to put it to work. "We want to be on the cutting edge of research and science," says John Lindsay, a regional director for D.A.R.E. America. "If you believe in that, you can't just talk the talk, you have to walk the walk—and I think that's what we've done over the last few years."

## Few School Shooters Have Diagnosis of Mental Illness

By Caroline Helwick, December 05, 2014

<http://www.medscape.com/viewarticle/835972>

NEW ORLEANS — A survey of school shootings in the United States revealed that only 17% of the perpetrators had a diagnosis of mental illness, but several risk factors emerged that could have served as warning signs.

"We found that in 73 of the 157 incidents, there was evidence of one or more risk factors," said Janice Hill-Jordan, PhD, from Southern Illinois University School of Medicine in Springfield. "Those are warning signs; they are things we can see in children that should make us think."

Dr. Hill-Jordan and her colleague, Ayame Takahashi, MD, also from the Southern Illinois University School of Medicine, presented their findings here at the American Public Health Association 142nd Annual Meeting.

A previous study from the US Secret Service and the Department of Education identified 37 incidents from 1974 to 2000, involving 41 attackers. An analysis of the shooters found that only one-third had a mental health evaluation, and only 20% had received a diagnosis of mental illness. Those numbers are similar to the current findings, Dr. Takahashi reported.

In their study, Drs Hill-Jordan and Takahashi identified 157 school shooting incidents from 2005 to 2012, involving 403 students. During the 7-year period, 146 students were killed, 29 more committed suicide, 222 were wounded, and 6 were shot by police.

The researchers used information gleaned from Internet news sources, and they looked for factors correlating with these incidents.

They defined a school shooting as one that took place on school property or at a school-sponsored event, regardless

## Monthly Webinars!

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## **Few School Shooters Have Diagnosis of Mental Illness (continued)**

of the number of victims. The presence of mental illness was assumed if evidence came from a credible source, such as if a family member reported a diagnosis, if the patient had been prescribed psychotropic medications, if a legal document contained this information, or if there was evidence of "bizarre thinking" or suicidal thoughts from a Facebook page or diary.

In 97% of the cases, the shooter was male. Mean age was 17 years and median age was 22 years. Most of the shooters were white (50%), 38% were black, 5% were Hispanic, and 7% were other. The vast majority, 79%, were committed by one shooter. In 52% of cases, the site was a high school.

The most common motivating factors were an argument or fight (22%), gang-related or other crime (20%), and stalking or intimate partner violence (10%).

### **Nearly Half the Shooters Had Risk Factors**

The researchers found evidence of a mental illness in only 17% of shooters. Dr. Hill-Jordan said she believes this low number reflects incomplete data, especially for incidents not considered "rampages." Many details are missing in such cases because "we don't have access to data on their mental health," she pointed out.

Nearly half the shooters, however, had demonstrated a warning sign associated with violence. These included racism, Nazism, gay bashing, gang membership, previous encounters with the law, poor grades, anger at school personnel or suspension, being bullied or being a bully, obsession with the Columbine shooting, parental mental health problems, and family troubles.

In a bivariate analysis, several factors emerged as significant when they occurred in conjunction with a diagnosis of mental illness. Students with a diagnosis of mental illness were significantly more likely to also commit suicide and to obtain the weapon from their own home or father.

The data suggest that cumulative effects led to the incident. "Arguments are being made for increased access to mental health, for changing the culture in schools, for reducing access to guns, but it's not one thing. Our research shows that we need to do all of the above," Dr. Takahashi said.

Five elements have been identified as contributing to school shootings, the researchers report. These are gun availability, a cultural script that supports a school shooting in the student's mind, the perception of an extremely marginal social position within an environment that is important to the student, an individual problem that magnifies the impact of the shooter's social marginalization (family problems, abuse), and the failure of social support systems designed to identify troubled children.

### **A Critical Look at Mental Illness**

One person who attended the presentation suggested that the movement to secure school buildings might be counterproductive. "Going into a school with metal detectors, bag checks, and security walking the hallways has got to have a negative effect. What is this doing for our young people?"

Dr. Takahashi explained that some schools have made efforts to increase communication about problems by hiring safety officers. The position is not so much to police as to be a designated place for students to talk to adults about any concerns they might have.

A more critical look at the mental illness category is needed, said Melissa Dupont-Reyes, MPH, from Columbia University in New York City.

Mental illness is an umbrella term for many conditions, but only psychosis is truly dangerous. "You could benefit from distinguishing psychosis from bipolar, schizophrenia, depression, and so forth," Dr. Dupont-Reyes pointed out.

The low number of established cases of mental illness is not surprising, said Jim May, PhD, from the Richmond Behavioral Health Authority in Virginia.

"You don't get labels such as bipolar illness or schizophrenia easily. Usually, something major has to happen to trigger this diagnosis, which frequently comes in the teens and mid-20s," he told *Medscape Medical News*.

"It's more accurate to say the shooters had no history of mental illness. The shooting incident could be the mental break that is needed for the diagnosis," Dr. May pointed out.

"This dataset is a bit thin at this point for making predictive comments," he added, "but the more data we can get, the better."

"I am convinced that if we have enough data — and 'big data' from broad sections of research could help — we could start to be predictive, and we could educate ourselves as professionals and the community better," Dr. May explained. "Our center is taking some mental health 'first aid' and suicide prevention training into the community, and we have been pleasantly surprised at how much the community wants this information."

*There was no commercial funding for this study. Dr. Hill-Jordan, Dr. Takahashi, and Dr. May have disclosed no relevant financial relationships.*

## Earlier School Start Times May Be Tied to Teen Driving Accidents

By Kathryn Doyle, November 18, 2014

<http://www.reuters.com/article/2014/11/18/us-teen-drivers-a-m-classes-idUSKCN0J228520141118>

(Reuters Health) – Teens with earlier high school start times may get in more car accidents than those with later start times, according to a study comparing two counties in Virginia.

The authors previously found a similar association in two other Virginia counties, which they published in 2011.

“Our study results suggest that early high school start times are problematic for our teens' ability to drive safely, but they cannot prove a causal relationship between early high school start times and increased teen crashes,” said lead author Dr. Robert Daniel Vorona of the Eastern Virginia Medical School in Norfolk.

But early start times may lead to sleep loss, he and his coauthors write.

Vorona and his coauthors used data from the Virginia Department of Motor Vehicles to compare car accident frequencies in Chesterfield County, Virginia, where high school classes began at 7:20 a.m., with nearby Henrico County, where classes started at 8:45 a.m.

In the 2009-2010 school year, for every 1,000 licensed drivers ages 16 to 18, there were almost 49 crashes in Chesterfield, compared to 38 in Henrico.

The situation was similar for 17 to 18 year old teens in 2010-2011, although there was no difference overall between counties for 16 to 18 year olds.

In total over the two-year period, teens got into 707 crashes in Henrico county and 1074 crashes in Chesterfield, the researchers reported in the *Journal of Clinical Sleep Medicine*.

Middle and high schools should start at 8:30 a.m. or later to benefit the health and welfare of students, according to a 2014 policy statement from the American Academy of Pediatrics (see Reuters story of August 25, 2014 here: [reut.rs/1uAsAZf](http://reut.rs/1uAsAZf)). Poor sleep has been linked to increased risks of depression, anxiety, obesity and motor vehicle accidents, experts noted in an article published alongside the statement in *Pediatrics*.

American Academy of Sleep Medicine President Dr. Timothy Morgenthaler, a national spokesperson for the Healthy Sleep Project, told Reuters Health that research funded by the Centers for Disease Control and Prevention (CDC) and reported in 2014 showed that for half of communities that instituted a later start time for their high schools, the rate of car crashes for high-school-age drivers dropped by 65 to 70 percent.

“By decreasing the likelihood that teens will be sleep-deprived when getting behind the wheel in the morning, we can help decrease the chance they will be involved in an accident,” Morgenthaler, who was not part of the new study, told Reuters Health in a statement.

Sleep and circadian rhythms change during adolescence, and school start times that aren't aligned with their sleep needs puts teens at risk for chronic sleep restriction, he said.

“In puberty, a natural shift occurs in the timing of the body's internal ‘circadian’ clock, causing most teens to have a biological preference for a late-night bedtime,” Morgenthaler said. “Current school start times are asking teens to shine when their biological clock tells them to sleep.”

Scheduling school start times should be a collaboration between parents and local school boards, he said.

“My suggestion would be that high schools should optimally start in the area of 8:30 to 8:45 such as the two later starting jurisdictions in our two studies,” Vorona told Reuters Health by email. “I would expect that they would need to end the school day later.”

Parents should explain how important adequate sleep is to teens, and restrict their driving to and from school and otherwise if their teen has not achieved sufficient sleep, Vorona said.

“Teens are inexperienced and poor drivers and adding sleep deprivation to the mix is asking for trouble,” he said.

SOURCE: [bit.ly/1Hc0FE4](http://bit.ly/1Hc0FE4) *Journal of Clinical Sleep Medicine*, November 14, 2014



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