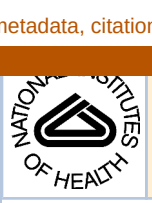

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Responses to Positive Results from Suspicionless or Random Drug Tests in U.S. Public School Districts

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Abstract

Background—Little is known about the context in which school-based suspicionless or random drug testing (SRDT) occurs. The primary purpose of the current study is to describe school districts' responses to students' first positive result in districts with SRDT programs.

Methods—Data were collected in spring 2005 from 1612 drug prevention coordinators in a nationally representative sample of 1922 school districts (83.9% response rate), of which 205 districts reported SRDT in high school grades.

Results—Respondents reported an array of consequences for students with an initial positive SRDT, including requiring parents or guardians to meet with school officials (88.4%), and requiring students to participate in an education, counseling, or treatment program (60.8%). However, some districts also reported consequences contraindicated by federal advisory guides, such as notifying

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law enforcement officials (45.1%) and suspending the student from an athletic team (65.0%) or from school (31.0%). Some respondents may have conflated their districts' responses to for-cause and random tests. Districts generally had available key services for students testing positive, including professional counseling for substance use problems (87.3%) and referrals to counseling services (91.9%).

Conclusions—More understanding is needed of schools' responses to students who test positive following the administration of SRDT, available advisory guides concerning best practices should be more effectively disseminated, and appropriate training and technical assistance should be available to schools with SRDTs.

Introduction

Interest in "whole school" or environmental approaches to school-based drug prevention has recently increased.[1] Some of these approaches seek to improve students' connectedness to schools;[2–4] others suggest strategies to change the way that schools are designed, managed, and organized;[5–7] and still others attempt to establish school-wide norms for appropriate behavior.[8, 9] A number of largely untested approaches, such as zero-tolerance policies, Drug-Free School Zones, locker searches, and enhanced security efforts, are collectively designed to prevent the sale and possession of illegal substances on school grounds.[6] These latter strategies may not be effective, however, if adolescents perceive that their use of illicit substances is unlikely to be detected. Thus, for reasons related both to primary prevention and to the early detection of substance use, a number of school districts have instituted drug testing policies in their high schools.

According to a study published by Monitoring the Future based on data collected between 1998 and 2001, 22.7% of the nation's public and private high schools engaged at the time in either "for cause" or "suspicionless random" drug testing (SRDT).[10] "For cause" testing is administered when there is reason to believe that a student has been using substances. Schools may also implement a policy of "suspicionless random" drug testing in which eligible students are informed that they may be tested on a random basis regardless of whether they manifest any signs or symptoms of substance use. More recent data, from the Centers for Disease Control and Prevention's School Health Policies and Programs Study, suggested that approximately 26% of public school districts containing middle or high schools had adopted a student drug testing policy; about half of these districts conducted random testing.11 Other recent data have indicated that 14% of school districts with high school grades have an SRDT program.12 The growth in federal support for school drug testing is evident in the budget for the Office of National Drug Control Policy, which is currently requesting $16.9 million FY 2008 for a grant program to support student drug testing that is administered by the U.S. Department of Education, an increase of $6.5 million over the level for FY 2007.13

Proponents of drug testing in school settings suggest that testing will deter the initiation of substance use and will provide students with a sound reason to decline their peers' offers of drugs.[10, 14] Drug testing may also facilitate effective interventions for students who test positive, because such tests provide indisputable evidence of substance use.[15]

School drug testing is not universally supported, however.[16–18] Some critics have suggested that the fear of testing may induce adolescents to avoid participating in athletics and other extra-curricular activities.[19, 20] This concern was not supported, however, in two recent empirical investigations.[21, 22] Critics have also speculated that involuntary or random drug testing may undermine trusting relationships between students and school personnel.[22, 23] Concerns also have been raised that drug testing may lead to other unintended adverse consequences, such as the use of substances that are undetectable by the testing methods used or the employment of strategies to thwart testing.[16, 18, 22, 24] Strategies that have been used to

thwart testing include ingesting a large amount of water immediately prior to the test to dilute the urine sample, or adding salt, vinegar, or bleach to it.[25]

That said, empirical evidence of the impact of SRDT on substance use is sparse. In a recent clinical trial, Goldberg and his colleagues[21] found only modest support (i.e., in four of 16 potential substance use outcomes) of the potential deterrent effects of SRDT on athletes, who averaged 15.5 years of age. They also reported that athletes exposed to testing in five intervention schools were significantly less likely than those in six control schools that did not test students to believe in its benefits or that it served as a reason not to use drugs.

The primary purpose of the current study is to describe school districts' responses to students' first positive result in those districts with SRDT programs. Supporters assert that the results of all positive tests should be reviewed by a medical review officer, who is a licensed physician responsible for examining laboratory reports of drug tests and determining whether there could be legitimate medical explanations for any positive results found.[26] Advocates also suggest that a subsequent confirmatory test be implemented, and that a carefully controlled process for parental notification be followed. Drug testing proponents assert that the response of school personnel should be preventive and corrective, and that students testing positive for the first time should suffer no negative academic or criminal justice consequences.[14, 25] Neither law enforcement nor any school personnel other than those who "need to know" should be informed of the names of students who test positive,[15, 27] as specified by both the Family Educational Rights and Privacy Act (FERPA) and federal Confidentiality of Alcohol and Drug Abuse Patient Records (42 CFR Part 2.Section 2.1(f)).[28] It was expected that the great majority of school districts with SRDT in the current study would follow the recommendations described above.

The study's secondary purpose is to examine the services that these districts have in place in support of their students. Districts that implement SRDT programs are urged to have schools with trained counselors and Student Assistance Programs (SAPs) in place and to facilitate referrals to treatment facilities as needed.[25, 29, 30]

Methods

Subjects

The sample for the current study comprised school districts associated with a national random sample of middle schools for a study conducted by the authors to examine the nature and prevalence of substance use prevention strategies in the nation's middle schools.31 The sample of middle schools was drawn in two phases, six years apart. The first phase used a 1998 sampling frame from Quality Education Data, Inc. (QED) of all regular public schools in the 50 states and the District of Columbia that included middle school grades, excluding schools that enrolled fewer than 20 students, were non-regular schools (e.g., alternative, charter), or reported having no substance use prevention programs.[32] The sampling frame yielded 2,273 eligible public schools. The second phase applied the same inclusion and exclusion criteria to a 2002 sampling frame from the Common Core of Data (CCD) that was designed to refresh the original sample by accounting for newly opened or reorganized schools, and which yielded 210 additional schools.33 The CCD, maintained by the National Center for Education Statistics of the U.S. Department of Education, collects data concerning all public schools and school districts in the U.S. The study's sampling frame of schools was stratified by population density, school size, and school district poverty level, with equal probability within each stratum. Because of the possibility of error on the sampling frames, sampled schools were contacted between October 2004 and January 2005 to confirm their eligibility status, a process that yielded 2,204 verified eligible schools that were nested within 1,922 school districts. District eligibility was based solely on whether a district included at least one eligible middle school.

The sample for the current study (i.e., those districts associated with the sample of eligible middle schools) was first restricted to those districts that included high school grades (n=1337). It was then further restricted to districts whose substance use prevention coordinators reported that they were conducting SRDT with students "in their high school grades," the definition of which was left up to the respondent. These two procedures limited the sample to 205 of 1612 responding school districts. Because the focus of the present study is on school districts' responses to positive SRDT results and because that question was asked only of Web and paper respondents, the sample for these analyses was further restricted to 162 districts. Of these, three cases did not respond to the consequences question, but were included in the analysis sample because they responded to the services question.

Table 1 displays the demographic characteristics of the district sample. As may also be seen, the characteristics of the post-stratified sample of school districts with high school grades is similar to those of the nation as a whole. Findings may thus be generalized to all public school districts in the U.S. that contain high school grades.

Instruments

Respondents were asked whether their district conducted SRDT with students in high school grades during the 2004–2005 school year. SRDT was defined as testing conducted regardless of whether a given student showed any signs of substance use, and that included students involved in an extra-curricular activity such as athletics or band for which the school might require testing as a condition of participation. Respondents reported whether their school district took any of 15 "usual and customary" actions in response to a student's first positive test result. These questions were drawn from the Youth, Education, and Society study of the University of Michigan.[34]

Respondents also reported if their district offered any of the following services to students in high school grades: (1) a Student Assistance Program that conducted activities such as screening for alcohol and drug involvement and service referral /coordination for students with problems that could lead to substance abuse; (2) a counselor, social worker, or school nurse who provided on-site, individual counseling for alcohol, tobacco or other drug (ATOD) problems; (3) referrals to an external substance abuse counseling service for students with ATOD problems; (4) a peer helper, peer educator, or peer counselor program for students; or (5) any special classes, groups, or programs for students who want to quit using ATODs. Response options for each of these services were "no schools," "some schools," and "all/most schools." For analytic purposes, the latter two responses were aggregated. This question was written by the authors.

Because study questions comprised individual items, tests of homogeneity were not pertinent. However, responses were examined for logical inconsistencies, with the following results; (1) one respondent selected "SRDT testing" and "no testing" in the same question, (2) two respondents selected "no testing" but then provided responses in subsequent questions about SRDT, and (3) one respondent did not select SRDT but then provided responses in subsequent SRDT questions. Altogether, four cases were eliminated because of these inconsistencies. A copy of the instrument is available from the first author.

Procedure

Data were collected from January through July of 2005 from each school district's Safe and Drug-Free Schools Coordinator or drug prevention coordinator, using sequential data collection modes to maximize the response rate. All respondents initially were invited by letter to complete a 40–45 minute survey via a secure Website and were provided a prepaid $10 cash incentive. Respondents who did not complete the Web-based survey after five additional mail

and email contacts were mailed a paper copy of the questionnaire and a postage-paid return envelope, along with a letter of support from the Office of Safe and Drug-Free Schools of the U.S. Department of Education. Respondents were sent a reminder postcard and provided with up to two additional copies of the paper questionnaire to encourage them to complete it. Those who did not were contacted for a 10-minute telephone interview, which was conducted by trained professional interviewers. The interview comprised an abbreviated version of the questionnaire that excluded the question specifically related to the consequences of an initial positive drug test described above. These three sequential data collection strategies collectively yielded 1612 responses, for a response rate of 83.9%; of which 66.8% were via Web, 16.3% were via paper, and 16.9% were via phone. More detailed information about the data collection procedures is available elsewhere.[35]

Data analysis

Prevalence estimates and 95% confidence intervals were calculated using weighted data. Sample weights for school districts were constructed from original selection probabilities computed on the 1998 sample and probabilities of selecting new districts in the 2002 sample. [36] Post stratification weights were then applied to the data to adjust proportions for each district's Orshansky Index (a measure of district poverty), number of schools, and population density to those of the 2004–2005 CCD files.[37] All analyses were conducted using PROC SURVEYFREQ in SAS 9.1.3 to account for the complex sampling design.

Results

Table 2 displays prevalence estimates for actions that districts take in response to a student's first positive result from an SRDT. Three quarters of the districts indicated that they required a confirmatory drug test. Almost all districts notified a school administrator or counselor, most notified parents or guardians, and almost all required affected students and their parents to meet with a school administrator or counselor. More than half of the school districts gave their students a warning or made a note on their record, and about the same proportion required students to participate in an education, counseling, or treatment program.

A substantial proportion of school districts reported responses that could be considered punitive. Respondents from almost half of school districts notified law enforcement officials, two-thirds suspended students from extracurricular activities or from a least one athletic team, and one-third suspended the students from school. About 13% reported that their districts sent students who tested positive to an alternative school and about 8% expelled them from school altogether. The findings reported in Table 2 were examined further to determine if they were associated with the district's region, poverty level, size, or population density. Results indicated that larger districts were more likely to require students to participate in education, counseling, or treatment programs, and to send students to an alternative school. Suburban schools were more likely to suspend students from athletic teams. Low poverty districts--those with fewer than 15% of students eligible for a free or reduced price lunch--were more likely to expel students from school altogether.

Table 3 displays the services available in school districts with SRDT programs in their high schools. As this table suggests, about 90% of these school districts had a professional in place in at least some of their schools whose responsibility was to provide professional counseling to students with substance use-related problems, and a similar proportion provided referrals to a substance abuse counseling service. Over half had student assistance or peer counseling programs available in at least some of their schools, or offered programs for students who were seeking to stop using substances.

Discussion

Most school districts with SRDT programs in their high schools responded to an initial positive test with clearly appropriate actions, including ordering a confirmatory test. Most also notified parents and appropriate school personnel, and referred students to an education, counseling, or treatment program. However, a substantial proportion of school districts with an SRDT program responded to a first positive test with what appear to be negative academic or legal consequences. For example, almost half of the school districts indicated that they notified law enforcement officials, thus potentially violating the FERPA and CFR regulations mentioned earlier. Further, nearly one-third of the districts reported suspending the student from school, and nearly one-tenth expelled the student from school altogether. These responses have been described as the "cornerstone" of "Zero Tolerance" policies,38 about which concerns have been expressed that they may disproportionately affect poor students and racial and ethnic minorities,39 and may actually increase the likelihood of future antisocial behavior.[40] The advice on this point from the Office of National Drug Control Policy (ONDCP) is clear: schools' policies should state clearly that no negative academic consequences should follow an initial positive drug test. This point is further supported by research on school drug use prevention policies that suggests that punitive enforcement may be counterproductive in deterring youth substance use.[41, 42]

In addition, ONDCP's standards suggest that school administrators should keep information relating to the test confidential – not even sharing it with teachers, much less police.[14, 25] This apparent violation of confidentiality on the part of some of the districts responding to the survey would seem to constitute a serious breach of protocol. Were it to occur, any subsequent arrest for a drug-related offense would constitute an even greater violation of privacy. Some school districts' practices related to suspension would also appear to contravene ONDCP's suggested protocols. However, it is entirely possible that some schools may suspend students only briefly, pending the successful outcome of a joint meeting with students and their parents to develop an appropriate treatment plan.

Collectively, these findings focus attention on the need to provide ongoing training and technical assistance for administrators whose schools and school districts have adopted drug testing policies and practices. Administrators should not be expected to develop appropriate policies for a practice of this complexity and sensitivity without hands-on guidance that extends well beyond that available in booklets[14, 25] and Websites.[43]

Many school districts with an SRDT program have appropriate services available to students who test positive. About 90% reported having counselors onsite in at least some of their schools, as well as a mechanism by which the schools can make referrals for substance abuse counseling. In addition, half of the districts provide a variety of other potentially useful services in their schools, including Student Assistance Programs, two evaluations of which have yielded promising results.[44, 45] These findings are very encouraging. The questions, however, were not asked in such a manner that permitted linking specific schools with SRDT programs to the availability of these services. Further study of this issue is clearly warranted, as well as wider dissemination of what is known concerning best practice for students who test positive for substance use.

This study has several limitations. First, the sampling frame was not designed to select a random sample of school districts with high school grades. Instead, data were drawn from a nationally representative sample of schools with middle school grades. Once post-stratification weights were applied, however, the study's sample of districts were similar to all U.S. districts with high school grades, which supports claims that study findings are representative of the nation as a whole. Nevertheless, the confidence intervals for the estimates are wider than if the

sampling frame had initially comprised high schools. This concern was partially offset by the magnitude of the response rate (84%), which for a survey of this nature was very high.

Second, some questions, including those concerning the consequences of an initial positive drug test, were not included in the abbreviated version of the instrument administered by telephone to respondents who did not respond to earlier appeals to complete it by Web or paper. How their responses, if collected, might have altered prevalence estimates is difficult to estimate. Comparisons of responses to the SRDT question which was asked of all respondents, regardless of the mode of data collection, provide inconclusive evidence of mode effects. Respondents answering questions by Web were less likely to report SRDT in their school districts (weighted proportion = 12%) than those responding by mail (21%) or telephone (17%). If a social desirability bias had affected respondents' choice of mode, then expected proportions yielded by the telephone administration would have contrasted with responses via Web and mail. However, because the three modes of the survey's administration were sequential (Web, followed by paper, and then telephone), mode effects cannot be disentangled from any real differences in the characteristics of early and middle, as opposed to late, responders. As it was, responders in school districts with an SRDT program constituted only 14% of the total of pertinent school districts.

Third, some estimates of districts' responses to a positive test may have been inflated due to respondents' misunderstanding of the question's focus on an initial test. For example, while a negative academic consequence should be precluded for a first positive test, multiple positive tests may rightfully lead to suspension. If so, some respondents may have reported all of the potential consequences students may incur, regardless of the frequency of the infraction. It is also possible that, despite best efforts to the contrary, some respondents may have thought that the question concerned their districts' consequences for a positive result of a for-cause test. If so, a more punitive response on the part of the district might well be appropriate. Finally, respondents were school district-level personnel, who may well have been less knowledgeable than high school-based administrators about the actions taken by their schools in response to positive drug tests. Limitations to study resources, and the amount of time that has elapsed since the surveys were conducted, did not permit a return to the study's original respondents to determine if they understood study questions correctly, nor did they allow for interviews with school-level personnel to confirm the responses of their district-level counterparts.

Despite these limitations, the findings make clear that a significant proportion of the nation's public school districts conducting SRDT have instituted policies and practices that extend beyond current federal recommendations. In this case, as in many examples of federally-supported social programs, the implementation of a novel initiative has preceded its evaluation, and the effectiveness of the strategy remains unknown. A large, randomly controlled trial of the effects of SRDT, sponsored by the U.S. Department of Education, is currently underway, however.[46] But further investigation of high schools with SRDT programs is needed to understand the potentially negative consequences that the findings in the current study have suggested. For example, the ramifications for students of school districts that report "notifying law enforcement officials," and how these officials may use any information they receive, is unclear. More needs to be known about the conditions under which students are suspended for substance use, for how long, and with what apparent effect. Federal support for and the prevalence of SRDTs make it imperative that the strategy be appropriately and constructively implemented, with whatever ongoing support, guidance, and oversight may be required to do so.

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Table 1

Study Sample and U.S. School Districts Characteristics

Characteristic	Study School Districts Mean or % (95% CI) N=1337	U.S. School Districts with High School Grades Mean or % (95% CI) N=11,148
Region[1]		
Northeast (%)	19.1 (15.6, 22.6)	18.8 (18.0, 19.5)
Midwest (%)	36.6 (33.1, 40.1)	38.8 (37.9, 39.7)
South (%)	27.9 (24.7, 31.2)	27.0 (26.2, 27.9)
West (%)	16.3 (13.8, 19.0)	15.4 (14.7, 16.1)
District size[2]		
1–3 school	45.9 (42.1, 49.8)	43.9 (43.0, 44.8)
4–6 schools	20.6 (17.6, 23.6)	21.3 (20.5, 22.0)
7–11 schools	20.9 (18.2, 23.5)	22.0 (21.2, 22.8)
12 or more schools	12.6 (11.1, 14.1)	12.9 (12.3, 13.5)
District poverty (students eligible for free or reduced-price lunch)[2]		
Low (0–14%)	19.2 (15.8, 22.5)	14.8 (14.1, 15.5)
Middle (15–39%)	37.3 (33.8, 40.8)	38.2 (37.3, 39.1)
High (> 39%)	43.5 (39.8, 47.3)	47.0 (46.0, 47.9)
Population Density[2]		
Urban	20.3 (17.4, 23.2)	21.2 (20.4, 21.9)
Suburban	24.9 (21.6, 28.2)	24.8 (24.0, 25.6)
Rural	54.8 (51.1, 58.5)	54.0 (53.1, 54.9)

Note. The set of study school districts are all of those districts in our sample that include high school grades. The U.S. school district sample describes all of the school districts in the nation with schools that include high school grades.

Note. N is unweighted; means and proportions calculated using weighted data.

[1]Defined by U.S. Census regions.

[2]Defined based on school data aggregated by school district from the 2004–2005 Common Core of Data school file.

Table 2

Actions Taken in Response to Students' First Positive SRDT result (unweighted N=159)

Action	%	95% CI
Confirmatory test made	75.5	67.5, 83.6
School administrator or counselor notified	96.6	93.1, 100.00
Parents or guardians notified	87.4	80.6, 94.2
Law enforcement officials notified	45.1	35.1, 55.2
Given warning or note made on record	58.1	48.1, 68.1
Required to meet with school administrator or counselor	92.5	87.8, 97.3
Required to participate in community service project	23.1	14.6, 31.6
Required to participate in education, counseling or treatment program	60.8	50.8, 70.8
Parent or guardian required to meet with school officials	88.4	82.4, 94.4
Suspended from one or more athletic teams	65.0	55.3, 74.7
Suspended from extra-curricula activities	66.5	56.3, 76.8
Given detention or in-school suspension	20.2	12.1, 28.2
Suspended from school	31.0	21.8, 40.1
Sent to alternative school	13.6	7.6, 19.7
Expelled from school altogether	8.4	3.2, 13.6

Note. Proportions calculated using weighted data.

Table 3

Services available to students in high school grades in districts with SRDT (unweighted N=162)

Service	%	95% CI
Referrals to substance abuse counseling service	91.9	85.3, 98.4
Professional providing counseling for ATOD problems	87.3	80.3, 94.2
Student Assistance Program	60.9	50.9, 70.9
Peer counselor program	50.6	40.4, 60.8
Special programs for students seeking to stop using ATODs	47.0	36.7, 57.2

Note. Proportions calculated using weighted data.