

J Adolesc Health. 2003 Jan;32(1):16-25.

Drug testing athletes to prevent substance abuse: background and pilot study results of the SATURN (Student Athlete Testing Using Random Notification) study.

Goldberg L, Elliot DL, MacKinnon DP, Moe E, Kuehl KS, Nohre L, Lockwood CM.

Department of Medicine, Oregon Health and Science University, Portland, Oregon 97201-3098, USA. goldberl@ohsu.edu

Erratum in J Adolesc Health. 2003 Apr;32(4):325..

**PURPOSE:**

To assess the deterrent effect of mandatory, random drug testing among high school (HS) athletes in a controlled setting.

**METHODS:**

Two high schools, one with mandatory drug testing (DT) consent before sports participation, and a control school (C), without DT, were assessed during the 1999-2000 school year. Athletes (A) and nonathletes (NA) in each school completed confidential (A) or anonymous (NA) questionnaires developed for this study, respectively, at the beginning and end of the school year. Positive alcohol or drug tests required parent notification and mandatory counseling without team or school suspension. Thirty percent of the DT athletes were tested. Data were analyzed using the end of the school year measure, adjusted for the initial questionnaire results. Demographics of the athlete sample revealed that mean age was 15.5 years with 81.5% white, 9.6% Hispanic, 4.5% Asian, 2.6% American Indian/Native Alaskan, 1.3% African-American, and 1.3% Native Hawaiian/Pacific Islander.

**RESULTS:**

A (n = 276) and NA (n = 507) were assessed at the beginning (baseline) and at the end of the school year (A, n = 159; NA, n = 338). The past 30-day index of illicit drugs (4-fold difference) and athletic enhancing substances (3-fold difference) were lower ( $p < .05$ ) among DT athletes at follow-up without difference in alcohol use. However, most drug use risk factors, including norms of use, belief in lower risk of drugs, and poorer attitudes toward the school, increased among DT athletes ( $p < .05$ ). Although a reduction in the illicit drug use index was present among nonathletes at the DT school, at the end of the school year, it did not achieve statistical significance ( $p < .10$ ).

**CONCLUSIONS:**

Random DT may have reduced substance use among athletes. However, worsening of risk factors and small sample size suggests caution to this drug prevention approach. A larger long-term study to confirm these findings is necessary.

Copyright Society for Adolescent Medicine, 2003

**PMID:**

12507797

[PubMed - indexed for MEDLINE]