

Correspondence between Oral Fluid Drug Test Results and Self-Reported Illicit Drug Use among Music Festival Attendees

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Abstract

Background:

Use of illicit substances is often under-reported. Testing positive in oral fluid provides an objective confirmation of recent intake.

Objectives:

To examine the agreement between oral fluid test results and self-reported substance use among music festival attendees, and factors associated with reporting past 48 h drug use among users identified by drug testing.

Methods:

One thousand three hundred nine participants were recruited from six music festivals in Norway (June–August 2016). They completed a questionnaire and provided oral fluid samples analyzed for amphetamines, MDMA, tetrahydrocannabinol (cannabis), and cocaine. Additionally, their blood alcohol levels were measured.

Results:

Overall, 5.5% reported use of amphetamines, cannabis, cocaine, and/or MDMA during past 48 h in the questionnaire, whereas 10.8% tested positive in oral fluid. Only 16.7% of identified cocaine users and 31.1% of identified MDMA users reported past 48 h cocaine or MDMA use, respectively. Higher proportions of identified cannabis and amphetamine users reported past 48 h use (53.8% and 55.6%, respectively). Multivariable logistic regression analysis showed that among participants who tested positive, those reporting weekly illicit substance use (Adjusted Odds Ratio [AOR] 30.6; 95% Confidence Interval [CI] 6.3–147.9), and using such substances when younger than 18 years (AOR 5.0; 95% CI 1.9–13.4) were more likely to report past 48 h use.

Conclusions/Importance:

Oral fluid testing appears to be an important tool when studying illicit substance use among music festival attendees, as significant under-reporting was observed. Among those testing positive, regular, and experienced users were more likely to report recent use, compared to less regular and experienced users.

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