

Validity of the standardized field sobriety test in detecting drug impairment

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Background: Initially developed to detect alcohol impairment in drivers, the Standardized Field Sobriety Test (SFST) is currently being used by law enforcement to detect impairment due to drugs. Few studies have assessed the test's ability to detect drug-related impairment accurately. The purpose of this study was to assess the validity of the three components of the SFST — Horizontal Gaze Nystagmus (HGN), One Leg Stand (OLS), and Walk and Turn (WAT)—in identifying drug impairment.

Methods: Data from 2,142 completed Drug Evaluation and Classification cases involving central nervous system (CNS) stimulants, CNS depressants, narcotic analgesics, cannabis, or no drugs were analyzed using multinomial logistic regression.

Results: All four drug categories showed signs of impaired performance on the SFST. On the HGN test, users of CNS depressants were significantly more likely to experience lack of smooth pursuit and distinct nystagmus at maximum deviation compared with those who did not use drugs. On the

OLS test, users of all four drug classes were significantly more likely to sway while balancing and use their arms to maintain balance, but were less likely to hop, as compared with drug-free cases. Users of CNS depressants, CNS stimulants, and narcotic analgesics were also significantly more likely to put their raised foot down during the test. On the WAT test, users of CNS depressants, CNS stimulants, and narcotic analgesics were less likely to keep their balance while listening to the test instructions compared with those who had not used drugs. Users of CNS depressants were less likely to touch heel to toe while walking, whereas individuals who had used narcotic analgesics were less likely to take the correct number of steps.

Conclusions: These findings provide support for the use of the SFST as a screening tool for law enforcement to identify impairment in persons who have used CNS stimulants, CNS depressants, cannabis, or narcotic analgesics. This work will have direct and immediate relevance to the training of police officers and will facilitate the enforcement of drug-impaired driving laws.

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