

PubMed

**Display Settings:** Abstract

[Full text links](#)

[Psychol Addict Behav.](#) 2014 Sep;28(3):852-62. doi: 10.1037/a0035877. Epub 2014 Aug 18.



## Application of item response theory to tests of substance-related associative memory.

[Shono Y](#), [Grenard JL](#), [Ames SL](#), [Stacy AW](#).

### Author information

### Abstract

A substance-related word-association test (WAT) is one of the commonly used indirect tests of substance-related implicit associative memory and has been shown to predict substance use. This study applied an item response theory (IRT) modeling approach to evaluate psychometric properties of the alcohol- and marijuana-related WATs and their items among 775 ethnically diverse at-risk adolescents. After examining the IRT assumptions, item fit, and differential item functioning (DIF) across gender and age groups, the original 18 WAT items were reduced to 14 and 15 items in the alcohol- and marijuana-related WAT, respectively. Thereafter, unidimensional one- and two-parameter logistic models (1PL and 2PL models) were fitted to the revised WAT items. The results demonstrated that both alcohol- and marijuana-related WATs have good psychometric properties. These results were discussed in light of the framework of a unified concept of construct validity (Messick, 1975, 1989, 1995). (PsycINFO Database Record (c) 2014 APA, all rights reserved).

PMID:25134051[PubMed - in process]

**LinkOut - more resources**

**PubMed Commons**

[PubMed Commons home](#)

0 comments

[How to join PubMed Commons](#)