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Criterion validity of self-reports of alcohol, cannabis, and methamphetamine use among young men in Cape Town, South Africa

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Introduction

Self-report is a convenient way to measure drug use, including drinking, but people may misremember or be loath to admit stigmatized behavior.

Previous research indicates that self-report accuracy differs by drug and by setting. We considered three drugs at once in an at-risk community sample.

Method

Young men in 24 neighborhoods of Cape Town were recruited from their homes. Those who consented were transported to a separate location for interviewing.

Men were asked if they had consumed any alcoholic beverages in the last **3** days, dagga (cannabis) in the last **2** days, or tik (methamphetamine) in the last **2** days.

Men completed a urine-based rapid diagnostic test for each drug. Each could detect use in the past **3** days.

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Table 1. Self-reported sample characteristics

Sample size	1,155
Age (median)	22
Education	
< 9 years	13%
> 12 years	1%
Ever held a job	70%
Ever been arrested	34%
Ever been jailed	6%
Ever joined a gang	22%
Drinks at all	76%
Ever used drugs	
Cannabis	76%
Methamphetamine	26%
Methaqualone (Mandrax)	22%

Table 2. Contingency tables comparing self-reported drug use with RDTs

	Rapid diagnostic test (RDT)					
	Alcohol		Cannabis		Meth.	
	-	+	-	+	-	+
Self-report -	671	144	545	177	897	133
Self-report +	116	224	14	419	3	122

Table 3. Summary of RDT vs. self-report

	Alcohol	Cannabis	Meth.
Negative RDTs	68%	48%	78%
Accuracy (agreement)	77%	83%	88%
Honesty (% self-reporting use among those with RDT use)	61%	70%	48%

Discussion

- Accuracy was good compared to the base rate of negative RDTs.
- Honesty varied by substance, and was quite low for methamphetamine.
- Research that uses self-report is likely to miss many drug users.
- Honesty rates will likely be lower in studies with no biomarkers (or when subjects don't know that biomarkers will be collected).