



Combining Prescription Drugs And Alcohol Among A Collegiate Sample: Function-Focused And Event Specific Measurement Development



Background

Concurrent use of prescription drugs and alcohol likely leads to substantially more risk than use of either of these alone. College student abuse of prescription medicines is a growing concern and indeed college students have been identified as a particularly high-risk group for such abuse (Johnston, O'Malley, Bachman, & Schulenberg, 2009). While studies have identified links between alcohol abusers and non-medical use of prescription medicines (McCabe, West, & Wechsler, 2007; Shillington, Reed, Lange, Henry, & Clapp, 2006), there have been few measures of prescription use detailed enough to document the prevalence of such concurrent behavior (a notable exception being McCabe, Cranford, Morales, & Young, 2006). Indeed for the general population, emergency room data indicates that alcohol is frequently co-occurring (18.8% of cases) within those with nonmedical prescription drug use admissions (Substance Abuse and Mental Health Services Administration, 2011). Further, we know little about the varying motivations and environmental settings in which different prescription drugs may be abused, which further hampers prevention strategy development. A new survey was developed with items that use a function-focused and last-event approach, similar to some alcohol measures, to assess non-medical prescription drug use.

Specific Approach

The measure developed would reverse the general direction of the questioning typically employed in drug use surveys. Instead of first asking participants to acknowledge the substances used, and then inquire more about the reasons and consequences, the new survey approach would start with the reasons (or functions) sought through the drug use, and then inquire about what was used. This approach may yield more complete data in that it is less reliant on preselecting the correct list of possible drugs. Within the follow up questions on use, a *Last Event* approach is then employed to get more detailed information on co-occurring use, consequences and environmental predictors.

Measurement Development

The research began with semi-structured interviews of 50 college students. These students were asked for reasons students may use prescription medicines in non-medical ways. From these interviews four main themes were apparent: (1) Studying, (2) Self-medication, (3) Getting high or partying, and for (4) Fun or to alleviate boredom. From these interviews, we developed a list of candidate feelings from which additional students were asked to respond. The measure described below includes the terms and effects that were consistently agreed, were understandable, and likely to occur.

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Measure Components

Function

In the past year, have you taken any medications to purposely feel or purposely to...	
Get high	Stay focused/ Study/ Cram
Get wasted	Relax/ Chill
Socialize/ Share an experience	Rage/ Party more
Cross-faded/ Boost an effect of alcohol or other drug	Escape feeling/ Avoid problems
Help with hangover	Feel sexy/ Enhance sexual experience
Get work done	No, I have not

Example substance follow up

What was (were) the medicine(s) that you took to feel _____?

Examples of: Pain medications: Vicodin, OxyContin, Tylenol 3 with Codeine, etc.
Muscle Relaxants: Soma, Cyclobenzaprine, Flexeril, etc.
Stimulant medications for ADHD: Ritalin, Dexedrine, Adderall, Concerta, etc.
Erectile dysfunction medications: Viagra, Cialis, Levitra, etc.
Sleeping medications: Ambien, Halcion, Restoril, etc.
Sedative or anxiety medications: Ativan, Xanax, Valium, Klonopin, etc.
Asthma inhaler medication: Albuterol, etc.
Narcolepsy/Sleep disorder medication: Modafinil, Provigil, Alerte, Modavigil, etc.

How often did you take _____ in the past 12 months?

Example of Last Use Follow Up

The last time you took _____, how much did you take?

of Pills
of mg
Name of medication
Did you drink alcohol within 2 hours of taking _____?
How many drinks?
What other medicines (either prescribed or not) did you take with _____?
Did you drive after taking _____?

Negative Consequences

Last use...
I have woken up in an unexpected place.
I have felt like I needed it after I'd gotten up (that is before breakfast).
I have driven a car when I know I had too much to drive safely.
I have passed out.
I have become very rude, obnoxious, or insulting.
I have experienced side effects of the medication.

General use...
I have been overweight because of it.
I have spent too much time on it.
I have felt badly about myself.
Problems between myself and my boyfriend/girlfriend/spouse, parents, or other near relatives.
I have felt like I needed it after I'd gotten up (that is before breakfast).
I have neglected my obligations to family, work, or school.
I have often found it difficult to limit.
I have found that I needed larger amounts to feel any effect, or that I could no longer get high on the amount that used to get me high.
I have experienced side effects of the medication.

Pilot Methods

Sample

738 college students were randomly recruited via e-mail to participate in a student health survey. Age ranged from 18 to 58 years old (M=22.3, SD=4.9).

Preliminary Findings

For the weighted sample, 17.1% of students reported using a prescription drug for at least one of the 11 functions presented. The number of students for each function is presented in Figure 1.

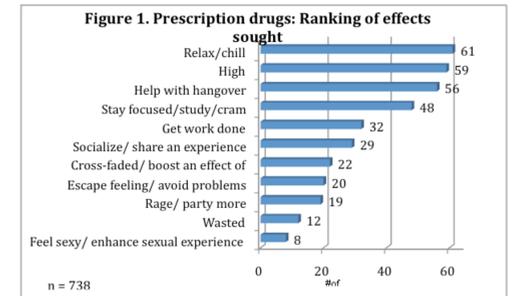


Table 1 presents the class of medicines used for each of the functions. From this we can see that students are clearly strategic in their medicine selection, with stimulants the main class of drug for studying, while getting high tends to provoke use of a wider variety of medicines.

Table 1. Number of individuals reporting drug classes by effects sought

	n	Pain	Stimulants	Sedative	Muscle Relax.	Sleeping
Relax/chill	61	19	0	15	6	6
High	59	19	10	9	11	11
Help with hangover	56	26	4	1	4	1
Stay focused/study/cram	48	2	33	3	0	0
Get work done	32	4	21	0	1	1
Socialize/share experience	29	2	4	0	1	1
Cross-faded/boost an effect of AOD	22	8	4	3	3	4
Escape feeling/avoid problems	20	8	0	3	4	5
Rage	19	1	9	1	1	0
Wasted	12	3	0	3	1	2
Feel sexy/enhance experience	8	2	0	0	0	0

Concurrent alcohol use and problems

Among those who used the most frequently used medicines (pain and muscle relaxant), alcohol was mixed with pain medications (4.6% of users) most frequently, followed by muscle relaxants (3.4% of users). Within our sample, use of the other classes of medicines were much less frequent, making assessment of last event uses less reliable. However, a large percentage (13.9%) of those using sedatives/anxiety medicines combined them with alcohol.

For each class of medicine, users reported on their 12 month instances of associated problems. Among the most frequently used drugs classes, the highest percentage of students with at least one problem was from sleep medications (23.2%) followed by stimulants (21.7%). However, because pain medicines were the most widely used, it had the highest number of students experiencing associated problems (36 cases).

Multi- vs Single Effect Users

Those who sought only one effect were 4.49 times less likely to also be illicit drug users (p<.001), about 50% less likely (.48) to have recent heavy episodic drinking episodes (p=.08).

References

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