

STASH, Vol. 5(6) -Self-treatment versus recreation as motivations for prescription drug misuse

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Rates of prescription drug misuse in the United States have risen significantly during recent years, with one study reporting an increase of 2.5 million prescription drug users between 2002 and 2007 (SAMHSA, 2007; McCabe, West, & Wechsler, 2007). Prescription drug misuse is of particular concern among adolescents and young adults who have shown higher rates of misuse than other age groups (Kroutil et al., 2006; McCabe, Cranford, & Boyd, 2006). For example, a study by Kroutil et al. found that 18-25 year olds were 4 times as likely to misuse prescription stimulants than those 26 years old and older (2006). This week, STASH reviews a study by McCabe, Boyd, & Teter (2009) that attempts to identify subtypes of prescription drug misusers as a step toward selecting more appropriate and, hopefully, more successful, interventions.

Methods

- Researchers mailed an invitation to participate in the study to a randomly selected sample of 5,389 undergraduate students at a large Midwestern university. Roughly two-thirds (n = 3,639, 68%) completed the self-administered web-based survey.
- The survey instrument included questions about
 - prescription drug misuse history
 - drug classes (i.e., pain medication, stimulant medication, sleeping medication, and sedative/anxiety medication)
 - motivations (i.e., self-treatment motivations, recreational motivations, and mixed motivations (reporting both self-treatment and recreational motivations))
 - routes of administration (i.e., inhaling, injecting, snorting, smoking, or ingesting orally)
 - co-ingestion with alcohol
 - drug and alcohol use history, and

- screens for drug and alcohol abuse (CAGE and DAST-10)

Results

- The prevalence of lifetime prescription drug misuse was 19.7% for all medication classes.
 - Researchers classified 39.1% of misusers into the self-treatment subtype, 12.6% into the recreational subtype, and 48.3% into the mixed subtype (i.e., researchers did not classify drug misuse as a single type).
 - Pain medication had the highest prevalence rates of lifetime misuse for both self-treatment (5.9%) and recreational (3.3%) subtype among the four medication classes studied.
 - Self-treatment misusers were the least prevalent subtype of sedative/anxiety medication misusers (0.6%), and recreational misusers were the least prevalent of sleeping medication misusers (0.5%).
- The results included significant differences in prescription drug misuse by gender and race.
 - Men were more likely than women (3.5% vs. 1.6%) to belong to the recreational subtype while women were more likely than men (9.1% vs. 6.0%) to belong to the self-treatment subtype ($p < 0.001$ based on Chi-square tests).
 - White (3.0%) and Hispanic (2.7%) participants had the highest prevalence rates of recreational misuse compared to Black (1.0%) and Asian (0.7%) participants ($p < 0.001$ based on Chi-square tests).
- As Table 1 shows, across all four measures, recreational misusers were at significantly greater risk of recent binge drinking, past year illicit drug use, alcohol and drug abuse.

	Binge drinking in the past 2 weeks		CAGE (+ screen) in the past year		Marijuana and other illicit drug use in the past year		DAST-10 (+ screen) in the past year	
	%	Adjusted Odd Ratios (95% CI)	%	AOR (95% CI)	%	AOR (95% CI)	%	AOR (95% CI)
Self-treatment only	51.3	Referent	20.4	Referent	37.5	Referent	9.6	Referent
Recreational only	78.4	3.0 (1.7-5.4)	37.5	2.2 (1.3-3.7)	81.8	6.8 (3.7-12.4)	40.9	5.4 (3.0-9.9)

Figure. Substance use and substance related problems based on lifetime nonmedical prescription drug misuse subtypes (adapted from McCabe et al., 2009). Click image to enlarge.

Limitations

- Study participants were all students from one large university in the Midwest so results might not generalize to a young adult population.
- The study relies on self-report data.
- It is possible that self-selection bias was a factor in this study because the response rate of those approached to participate in the study was 68%.
- Researchers classified misuse subtypes based on life-time prescription drug use while other high risk behaviors were assessed more recently (i.e., past two weeks, past year). It is possible that this time frame discrepancy could lead to different results and conclusions if the time frame affected the way study participants reported the behaviors under investigation.

Conclusion

This study indicates that there is heterogeneity among prescription drug misusers and that members of the recreational subtype are more likely to engage in high risk alcohol and drug use behavior than those in the self-medication subtype. Identifying relationships between prescription misuser subtype and other drug and/or alcohol use and abuse illuminates potential pathways for prevention and intervention. This study also found significant racial and gender differences in motivation for drug misuse. Males, White and Hispanic participants were more likely to be in the recreational misuse subtype. Further research is needed to understand the role of these subtypes in prescription drug misuse, and to fully understand the interplay of subtype and other risky drug and alcohol use behaviors.

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