



Prescription Substance Use And Misuse In A Hispanic Young Adult Sample

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Abstract

Prescription substance misuse and abuse is an increasing issue of concern for college students (Kelly & Parsons, 2007). Two issues are of particular concern related to prescription substance use. First, poly-substance use with alcohol and other drugs of abuse is often observed in prescription substance misusers and abusers (McCabe, Boyd, & Teter, 2009). Second, misuse of prescription drugs (illicit use) may reflect a need to self-medicate underlying undiagnosed and/or untreated psychiatric symptoms (Khantzian, 1985). Furthermore, limited knowledge exists of Hispanic prescription drug use in both licit (with a prescription) and illicit forms (use without a prescription and use for recreational purposes) or the impact of acculturation to U.S. society may have on prescription use behaviors among Hispanic young adults. The present study examined a convenience sample survey of young adult Hispanics ($N = 434$) attending a U.S. university situated on the U.S./México border. Participants reported on their prescription and illicit substance use histories, as well as their alcohol and smoking behaviors. Acculturation, depression, anxiety, and stress levels were also assessed. Participants' licit prescription substance use was related to higher acculturation and stress levels, but fewer depression symptoms. Illicit prescription use was associated with both lifetime illicit drug use and higher levels of alcohol consumption. Findings support the notion that prescription drug use often accompanies use of other drugs. Support for self-medication with prescription substances was not observed however. Acculturation findings suggest cultural convergence to U.S. healthcare norms. Still, further work is needed to better understand the extent and specific motivations for the misuse of prescription drugs by Hispanics living on the U.S./México border.

Introduction

Prescription Drug and Poly-substance Use

- Young to middle-aged adults may be at risk for abuse and other severe consequences as a result of using potentially addictive prescription (RX) substances (Hertz & Knight, 2006; Kelly & Parsons, 2007).
- Individuals who misuse or abuse one drug are more likely to misuse or abuse other drugs (Kapczynski et al., 2001; Mohler-Kuo, Lee, & Wechsler, 2003).

The Self-medication Hypothesis (SMH)

- Some individuals who use drugs may do so because of untreated mental health concerns (Khantzian, 1985).
- Example: substance abuse may follow onset of depression in an attempt to alleviate unpleasant feelings experienced as a result of depressive symptomology (Abraham & Fava, 1999)
- Use of substances may exacerbate depression symptoms (Markou, Kosten, & Koob, 1998) indicating a potentially problematic SMH cycle.

Acculturation to the U.S.

- Acculturation may be stressful to immigrants to the U.S. and may promote maladaptive coping via substance use (Johnson, VanGeest, & Cho, 2002, p. 944).
- Evidence against acculturative stress predicting drinking and illicit drug use exists in geographic areas near where the present study was conducted (Arciniega, Arrollo, Miller, & Tonigan, 1996).
- Higher acculturation and higher levels of drug abuse may represent convergence to U.S. norms; individuals adopt the drug patterns common to U.S. residents (Johnson et al., 2002).

Hypotheses

- Hypothesis 1**) RX recreational use and use without a prescription (illicit use) will be associated with poly-substance use, but RX use with a prescription (licit) will not be associated with poly-substance use.
- Hypothesis 2**) RX use without a prescription will be associated with higher levels of anxiety, depression, and stress (SMH).
- Hypothesis 3**) Acculturation will be positively associated with recreational, without a prescription, and with a prescription RX use.

Survey Method

Participants

- A convenience sample ($N = 434$) of Mexican American, Mexican National, or other Hispanic college students.

Measures

- Participants reported their history of use of the following classes of substances: RX opioid analgesics, benzodiazepines, and stimulants. Lifetime use with and without a prescription, as well as recreational use were dichotomously coded (yes vs. no).
- Participants reported past month alcohol use, smoking status (at least weekly smoking), and lifetime use of illicit substances (marijuana, heroin, cocaine, methamphetamines, hallucinogens).
- The Short Acculturation Scale for Hispanics* (SASH) assesses level of acculturation to U.S. (Marín, Sabogal, VanOss, Otero-Sabogal, & Pérez-Stable, 1987). The range of this scale is 1 to 5 with higher scores indicating higher acculturation ($\alpha = .86$).
- The Depression, Anxiety, and Stress Scales* (DASS) is a set of three sub-scales (Lovibond & Lovibond, 1995) that assesses constructs of depression ($\alpha = .87$ in this study), anxiety ($\alpha = .95$ in this study), and stress ($\alpha = .92$ in this study). The range of each sub-scale is 0 to 42 with higher scores indicating more symptoms and/or more severe symptoms.

Approach to Analyses

- Tetrachoric correlations between the 3 RX use variables were estimated.
- All covariates presented in Table 1 were entered in to 3 multivariate logistic regressions predicting: 1) RX use with a prescription, 2) RX use without a prescription, and 3) Recreational use of RX substances.

Table 1: Participant Characteristics ($N = 434$)

Categorical Outcomes	N	%
Use with a prescription (licit)		
Yes	107	25
No	327	75
Use without a prescription (illicit)		
Yes	52	12
No	382	88
Recreational use (illicit)		
Yes	31	7
No	403	93
Categorical Covariates	N	%
Gender		
Male	177	41
Female	257	59
Household Annual Income (USD)		
\$14,999 or less	55	13
\$15,000 to \$29,999	134	31
\$30,000 to \$49,999	109	26
\$50,000 or more	129	30
Past Month Alcohol Use		
None	133	31
1 to 4 drinks	177	41
5 to 9 drinks	74	17
10 or more drinks	50	11
Smoking Status		
Non-smoker	324	76
Weekly or greater smoking	103	24
Lifetime Illicit Substance Use		
Yes	268	62
No	166	38
Continuous Covariates	Mean	SD
Age	20.16	3.97
Acculturation	3.27	0.80
Depression level	5.11	5.81
Anxiety level	5.20	7.50
Stress level	8.97	8.05

Results

- RX use with and without a prescription were significantly correlated ($\rho = .66, p < .001$); RX use with a prescription and recreational use were also related ($\rho = .60, p < .001$). RX use without a prescription was highly correlated with recreational use ($\rho = .95, p < .001$).
- RX use *with a prescription* was associated with acculturation (*Odds Ratio* [OR]= 2.09, $p < .001$), age ($OR = 1.08, p < .05$), lesser depression ($OR = .94, p < .05$), but higher levels of stress ($OR = 1.10, p < .001$).
- RX use *without a prescription* was associated with having any lifetime use of illicit substances ($OR = 4.05, p < .001$), consuming 10 or more drinks per month ($OR = 3.02, p < .001$) in reference to no past month use, and marginally with acculturation ($OR = 1.58, p = .08$).
- Recreational RX use was associated with any lifetime use of illicit substances ($OR = 11.10, p < .001$) and consuming 10 or more drinks per month ($OR = 4.01, p < .001$) in reference to no past month use.
- No other covariates presented in Table 1 were associated with RX use.

Discussion

Poly-substance Use

- Consistent with hypotheses and previous findings overall (e.g., Kapczynski et al., 2001; Mohler-Kuo et al., 2003), poly-substance use is strongly associated with RX use without a prescription and RX recreational use, while poly-substance use appears unassociated with licit RX use.
- These associations underscore the need for increased focus on assessment and treatment options for poly-substance users.

Self-Medication

- Inconsistent with hypotheses, very limited support for the SMH (Khantzian, 1985) was encountered.
- Hispanic young adults may opt for use of alternative substances for self-medication than RX substances; a better understanding of the extent of self-medication in Hispanics and which substances may be most likely misused or abused for self-medication purposes is therefore one important research avenue to improve assessment and treatment of Hispanic substance users.

Acculturation and RX Use

- The positive association between acculturation and licit RX use, though not with illicit forms of RX use suggests convergence to U.S. RX use norms (Johnson et al., 2002) rather than use reflecting acculturative stress.
- More highly acculturated individuals may opt for less use of Mexican farmacias, instead relying on common prescription practices in the U.S.

Limitations and Future Directions

- Participants exhibited relatively low levels of symptomology in the DASS which may have resulted in floor effects; future research may do well to focus on RX use patterns among Hispanics who exhibit higher levels of psychological distress.
- Future work may benefit from more systematic epidemiological and longitudinal studies of RX use (cf. Sloboda, 2002) in Hispanic individuals.

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