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Benzodiazepine misuse in adults with alcohol use disorder: Prevalence, motives and patterns of use

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Abstract

Objective.—Benzodiazepines are among the most commonly misused drugs. Despite the known risks of combining benzodiazepines and alcohol, little is known about misuse among people with alcohol use disorder (AUD). Our aim was to characterize the prevalence, correlates, and patterns of misuse of benzodiazepines in adults with AUD.

Method.—Adults receiving treatment for AUD (N=258) completed a battery of questionnaires. We used descriptive statistics to characterize the prevalence and patterns of misuse and we used logistic regression models to identify correlates of misuse.

Results.—Almost half of the sample reported a history of benzodiazepine prescription and 30% reported a history of misuse. Younger age, female sex, anxiety, and other substance use were associated with misuse. Coping was the most commonly reported reason for misuse. All participants who had misused a benzodiazepine in the past year used concurrently with another substance.

Conclusions.—Benzodiazepine misuse was common in this study, and risky patterns of use, such a co-use with other substances, were prevalent. Coping was the most common reason for misusing benzodiazepines, suggesting that un- or under-treated psychiatric symptoms may contribute to misuse.

Keywords

Benzodiazepines; Alcohol use disorder; Anxiety; Polysubstance use

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Author Contributions

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1. Introduction

The public health harms of benzodiazepine misuse (use of benzodiazepines at a higher dose or greater frequency than prescribed, or without a prescription) have increased steadily over the past two decades. For example, benzodiazepine-related overdose deaths increased approximately 10-fold from 1999 to 2017 in the United States (National Institute on Drug Abuse, 2019). During this same time, the number of benzodiazepine prescriptions (Agarwal & Landon, 2019; Bachhuber, Hennessy, Cunningham, & Starrels, 2016) and the average dose of these prescriptions have increased substantially in the United States, increasing exposure to benzodiazepines at a higher potency (Bachhuber et al., 2016). People with substance use disorders (SUDs) are more likely to misuse benzodiazepines than the general population (Votaw, Witkiewitz, Valeri, Bogunovic, & McHugh, 2019). Benzodiazepine misuse is particularly concerning among people with SUDs because the combination of benzodiazepines with other drugs, such as alcohol and opioids, increases risk for fatal overdose (Gudin, Mogali, Jones, & Comer, 2013). Much of what is known about the misuse of benzodiazepines in people with SUDs has focused on people with opioid use disorder. Despite the risks of combining benzodiazepines and alcohol, little is known about the misuse of benzodiazepines in people with alcohol use disorder (AUD).

Alcohol use and AUD are associated with heightened risk of tranquilizer and sedative misuse, including benzodiazepines (Becker, Fiellin, & Desai, 2007; Goodwin & Hasin, 2002; Huang et al., 2006). An estimated 7.6% of people with AUD report past-year sedative/tranquilizer misuse and 0.6% meet criteria for current sedative/tranquilizer use disorder, rates 2–3 times greater than among the general population in the United States (Votaw, Witkiewitz, et al., 2019). Compared to people with AUD in the general population, estimates of benzodiazepine misuse are even higher among those seeking treatment for AUD. For example, a study of people receiving inpatient treatment for AUD found that 19% had misused a benzodiazepine in the past 30 days (McHugh, Geyer, Karakula, Griffin, & Weiss, 2018). Among people with AUD, those with more polysubstance use (i.e., a higher total number of substances used) and higher negative affect (e.g., anxiety and depression symptoms, anxiety sensitivity) are more likely to misuse benzodiazepines (McHugh et al., 2018; Votaw, Witkiewitz, et al., 2019).

However, little is known about how or why people with AUD misuse benzodiazepines. Research on opioid use disorder suggests that benzodiazepine misuse can be motivated by coping with negative affective or somatic states (e.g., to manage anxiety, depression, insomnia, or substance withdrawal) or a desire to enhance experiences (e.g., to get high, to “boost” the effects of opioids) (Fatseas, Lavie, Denis, & Auriacombe, 2009; Stein, Kanabar, Anderson, Lembke, & Bailey, 2016; Vogel et al., 2013). Studies of people with opioid use disorder also suggest that benzodiazepines are most commonly misused via oral routes of administration, followed by intranasal use (Vogel et al., 2013). Injection use is also reported, particularly in high-risk populations characterized by severe polysubstance use and injection of other substances (Ross & Darke, 2000). In contrast, analogous research on benzodiazepine misuse in people with AUD is sparse. Understanding the prevalence and patterns of benzodiazepine misuse in AUD is important to informing efforts to prevent or to reduce benzodiazepine misuse.

Our aim is to characterize benzodiazepine misuse in a sample of adults receiving treatment for AUD. Our study objectives are to characterize (1) the prevalence and correlates of benzodiazepine misuse in treatment-seeking adults with AUD, (2) motives for benzodiazepine misuse in this population, and (3) patterns of use (e.g., route of administration, frequency of use, and co-use with other substances). Through better characterization of these factors in adults with AUD, our goal is to improve understanding of this growing problem and to begin to identify key areas for future research to mitigate the harms associated with benzodiazepine misuse.

2. Methods

This study is an exploratory analysis of a large, ongoing survey study of adults receiving SUD treatment at a private academically affiliated psychiatric hospital in the Northeastern United States. This analysis included the subset of the larger study sample who were diagnosed with AUD. We specifically examined participants with AUD rather than the full sample (consisting predominantly of AUD and opioid use disorder) because benzodiazepine misuse has been well-characterized in opioid use disorder in prior studies. Data included in this analysis were collected between 2017 and 2018. The local Institutional Review Board approved all study procedures.

2.1. Participants

Study staff offered adults presenting for inpatient detoxification and stabilization treatment the opportunity to participate in a single-session survey study. Inclusion criteria were current diagnosis of AUD, age 18 and older, and ability to read English and provide informed consent. Exclusion criteria included any major medical or psychiatric condition that would interfere with the ability to complete a brief survey study (no participants were excluded for this reason).

The sample consisted of 258 participants with a current diagnosis of AUD. This sample was 40% female, and average age was 41 years (SD=13.0, range=18 to 71). Self-reported race was primarily white (90.6%), followed by Black (3.9%) and biracial/multiracial (2.8%); 4% self-identified ethnicity as Hispanic/Latinx. The educational background of the sample was 18% with high school education or less, 35% completed some college, 31% completed 4-year college, and 16% completed postgraduate education. Employment status was self-reported as 45.3% employed full time, followed by 22.7% unemployed, 10.5% disabled, 9.0% employed part time, 6.6% retired, 3.9% student, and 2.0% homemaker. Polysubstance use was common; 32% of the sample reported drug use (other than alcohol and benzodiazepines) in the prior month. In addition, 48.4% reported that they were current smokers. Furthermore, 35.3% of the sample also met criteria for an SUD (not including tobacco use disorder) in addition to AUD.

2.2. Procedure

Potential participants self-identified as interested in the study following staff presentations on the clinical unit. Participants then completed an informed consent meeting. Those providing consent completed a series of questionnaires. Participants completed all measures

on a tablet computer using secure data collection software (REDCap) (Harris et al., 2009). Back-up paper copies were available in the case of software downtime or participant preference. Study procedures took approximately 30 minutes to complete.

2.3. Measures

We extracted participant diagnoses from the medical record. Participants self-reported sociodemographic and clinical variables of interest, and completed the questionnaires described below.

We developed the Benzodiazepine History Questionnaire for this study to assess benzodiazepine misuse, which was defined as use without a prescription or at a higher dose or frequency than prescribed. We based this 17-item self-report questionnaire on a measure of opioid use disorder characteristics (Opioid History Questionnaire) (Weiss et al., 2011) and included questions about legitimate (i.e., prescribed) use ("Have you ever been prescribed a benzodiazepine by a medical professional for anxiety, sleep, or some other legitimate medical reason [not including any medications received only during detox]?") and benzodiazepine misuse ("Have you ever used benzodiazepines without a prescription to you or at a higher dose or more frequently than prescribed? For the remainder of the survey, this will be referred to as nonmedical benzodiazepine use."). We also assessed frequency of misuse, benzodiazepine products used, motives for misuse, and patterns (e.g., route of administration, source of benzodiazepines) of misuse. This questionnaire assessed motives for participants' first episode of benzodiazepine misuse ("What was the major reason you first used nonmedical benzodiazepines?"), with the following response options: to relieve anxiety, to get high/for euphoria, to improve sleep, to relieve depressed feelings, to deal with bad memories, out of curiosity, someone offered me a benzodiazepine, to help manage pain, to increase the effects of another substance (alcohol, opioids, or cocaine/other stimulants), to decrease the effects of another substance (alcohol, opioids, or cocaine/other stimulants), and to manage withdrawal symptoms (alcohol or opioid). We did not specifically assess Z-drugs (e.g., zolpidem).

The Drug Use Motives Questionnaire (DUMQ) (Cooper, Russell, Skinner, & Windle, 1992; Mueser, Nishith, Tracy, DeGirolamo, & Molinaro, 1995) is a 15-item self-report measure of reasons for using substances. The measure characterizes motives for drug use in three categories, coping (e.g., to relax, to forget your worries), social (e.g., to celebrate, to be sociable), and enhancement (e.g., because you like the feeling, to get high). We modified the instructions to refer specifically to benzodiazepine misuse. For each motive, participants reported how frequently they misused benzodiazepines for each reason, using a 1 ("almost never/never") to 4 ("almost always/always") scale. We summed scores for each motive subtype (i.e., coping, enhancement, and social) to produce a range of scores from 5 to 20 for each subscale. Using the same 1–4 response scale, we added 5 items to assess benzodiazepine-specific motives derived from qualitative and descriptive studies of motives for benzodiazepine misuse (Vogel et al., 2013): to help with sleep, to reduce the effects of other drugs, to enhance the effects of other drugs, to help with benzodiazepine withdrawal, and to help with other substance withdrawal. Only participants who reported benzodiazepine

misuse in the past year completed this questionnaire, and we specifically asked about motives in the past 12 months.

We administered several measures to assess potential correlates of benzodiazepine misuse. The Overall Anxiety Severity and Impairment Scale (OASIS) (Norman, Cissell, Means-Christensen, & Stein, 2006) is a 5-item self-report questionnaire used to assess anxiety symptoms. The OASIS includes questions on severity, frequency, and interference of anxiety symptoms in the past week. The scale ranges from 0 to 4 with higher scores reflecting more severe anxiety symptoms (Campbell-Sills et al., 2009).

We used two questions from The Brief Pain Inventory (BPI) to evaluate chronic pain. The questions assessed the presence of current pain (excluding minor aches and pains and pain associated with alcohol or drug withdrawal) and duration of pain. We considered pain that persisted for at least 3 months to be chronic pain (Cleeland & Ryan, 1994).

The Brief Addiction Monitor (BAM) (Cacciola et al., 2013) is a 17-item self-report questionnaire used to assess severity and frequency of alcohol and drug use and associated problems in the month prior to hospitalization. In this study, we used the BAM to quantify past 30 days use of substances.

2.4. Data analysis

This study was primarily descriptive. For objective 1, we first used descriptive statistics to quantify the prevalence of benzodiazepine misuse in this sample. To examine correlates of misuse, we then compared participants with and without benzodiazepine misuse using t-tests and chi-square tests for bivariate analyses. For these comparisons, we examined both sociodemographic (age, race, and sex) and clinical variables (polysubstance use, anxiety, history of benzodiazepine prescription, and age of first benzodiazepine use) that have previously been associated with benzodiazepine misuse (see (Votaw, Geyer, Rieselbach, & McHugh, 2019) for review). We followed this with two logistic regression models testing any significant variables from the bivariate analyses, with presence of any misuse and presence of regular misuse (defined as 3 days or more per week) as the dependent variables. Due to some missing data for individual measures, the sample size for the regression analyses was 240. For objectives 2 and 3, we calculated descriptive statistics to characterize self-reported motives for use, and patterns of use (route of administration, frequency, and co-use with other substances). We did not conduct a statistical power analysis to determine the study sample size for this secondary analysis.

3. Results

Analyses included 256 participants, because data were missing for two participants.

3.1. Objective 1: Prevalence and correlates of benzodiazepine misuse

Of this sample, 47% (n=120) reported having ever received a benzodiazepine prescription and 30% (n=76) reported a lifetime history of benzodiazepine misuse. Twenty percent of the entire sample (including 68% of those with lifetime benzodiazepine misuse) reported misuse in the previous year. Lifetime regular benzodiazepine misuse (defined as 3 days or more per

week) was reported by 19% of the total sample and 62% of participants who reported lifetime benzodiazepine misuse. Participants who misused benzodiazepines in the past year identified the benzodiazepine that they used most often as: alprazolam (57.5% of participants), followed by clonazepam (25.7%), lorazepam (9.7%), diazepam (3.5%), and less than 2% for oxazepam, don't know, or other.

We compared participants with and without a lifetime history of benzodiazepine misuse (Table 1). In bivariate analyses, people with a history of benzodiazepine misuse were significantly younger, were more likely to be female, had higher anxiety symptom severity, and were more likely to have used other substances in the past month. We then included each of these variables (age, sex, anxiety symptom severity, and other drug use) in all multivariable models. The logistic regression model indicated that younger age (OR = 0.96, 95% CI = 0.93, 0.99, $p < .01$), female sex (OR = 2.26, 95% CI 1.09, 4.71, $p < .05$), anxiety severity (OR = 1.10, 95% CI = 1.00, 1.20, $p < .05$), and other drug use in the past month (OR = 3.98, 95% CI=1.95, 8.11, $p < .001$) were associated with lifetime benzodiazepine misuse. Among those with a history of benzodiazepine misuse with data on all variables of interest (n = 69), history of a benzodiazepine prescription (OR = 4.52, 95% CI 1.24, 16.54, $p < .05$) and other drug use in the past month (OR = 7.83, 95% CI = 1.93, 31.77, $p < .01$) were associated with greater risk for regular (3 times per week or more) benzodiazepine misuse.

3.2. Objective 2: Motives for benzodiazepine misuse

The primary reason for first misuse of a benzodiazepine among those who had ever misused benzodiazepines (n = 76) was 50% for anxiety/nervousness relief, followed by 15.8% to get high/for euphoria, 11.8% out of curiosity, 11.7% for substance-related reasons (e.g., to increase the effects of alcohol or opioids and to reduce the effects of stimulants), 3.9% to improve sleep, 3.9% to relieve depressed or sad feelings, and <3% for all other reasons (i.e., someone offered them and to manage pain).

People who reported misuse in the past year (n = 52) completed the Drug Use Motives Questionnaire. The subscale scores on this questionnaire indicated that coping was the most frequent reason for misuse (mean = 14.15, SD = 4.64; on average "often" using benzodiazepines for this reason), followed by enhancement (mean = 11.46, SD = 4.82; on average "sometimes" using benzodiazepines for this reason), and social motives (mean = 8.0, SD = 4.38; on average "almost never/never using benzodiazepines for this reason"). Motives that we assessed with our additional items were also common. In our sample, 66% reported misusing benzodiazepines often or always to improve sleep, 30% to decrease the effects of other alcohol or drugs, 46% to increase the effects of alcohol or other drugs, 20% to avoid benzodiazepine withdrawal, and 26% to avoid withdrawal from other substances.

3.3. Objective 3: Sources and patterns of misuse

When asked about the first source of misused benzodiazepines, approximately half of the sample (53%) reported that they received them for free from a friend, acquaintance, or family member. The second most common source was a prescription for a legitimate medical reason (19%), with the remainder reporting sources of purchased from a dealer (9.3%), purchased from the internet (6.7%), stolen (6.7%), purchased from a friend or family

member (4%), and a nonlegitimate prescription (1.3%; e.g., made up or exaggerated a medical issue to obtain the prescription, prescribed by a doctor illegally, prescription forgery, or prescriptions from multiple doctors).

Route of administration was primarily oral/swallowing (95%), followed by snorting or sniffing (41%). Other routes were rare, including "parachuting" (i.e., swallowing crushed drugs wrapped in some form of paper, which can be used for reasons such as avoiding an unpleasant taste or to modify the speed of absorption or duration of drug effect), smoking, and rectal administration, reported by one participant each.

In people who reported misuse in the past year, we also assessed "co-use," defined as simultaneous use, or co-ingestion, of benzodiazepines with alcohol or another drug. Notably, every participant who reported past-year benzodiazepine misuse reported co-use in the prior year. Co-use was common for a wide array of substances, with the most prevalent being alcohol (60.5% of those with past-year misuse), followed by marijuana (36.8%), cocaine (31.6%), and illicit opioids (defined as illegal use of opioid analgesics or any use of heroin or other opioids; 30.3%). These data are presented in Figure 1.

4. Discussion

The misuse of benzodiazepines and associated risks among people with SUDs are a growing concern. Despite elevated rates of benzodiazepine misuse among those with AUD in the general population (Votaw, Witkiewitz, et al., 2019) and increased risk of overdose when alcohol and benzodiazepines are co-ingested (Gudin et al., 2013), most of the literature on benzodiazepine misuse has focused on people with opioid use disorder. This study demonstrates that misuse is also highly prevalent in people seeking treatment for AUD. In our AUD sample, 30% of participants reported lifetime benzodiazepine misuse and more than 60% of those people had misused regularly at some time in their lives. Furthermore, approximately 68% of those with lifetime benzodiazepine misuse (20% of the sample as a whole) reported past-year benzodiazepine misuse. Of note, many participants were using multiple substances, and more than 60% of those who reported a history of benzodiazepine misuse had used another substance in the prior month. Consistent with the literature, polysubstance use (use of substances other than alcohol and benzodiazepines) was the strongest predictor of benzodiazepine misuse. This finding was particularly robust for the prediction of regular (3 days per week or more) misuse.

In an unexpected finding, 100% of our sample who misused benzodiazepines in the past year reported co-use of benzodiazepines with other substances. Co-use was common with several other substances, including alcohol, opioids, stimulants, and cannabis. Among those with past-year benzodiazepine misuse in the current sample, 46% "always or often" misused benzodiazepines to increase the effects of alcohol or other drugs and 30% "always or often" misused benzodiazepines to decrease the effects of alcohol or other drugs. The pervasive use of benzodiazepines to increase and decrease the effects of other substances might partly explain the strong association between polysubstance use and regular benzodiazepine misuse. This highly risky pattern of use is concerning and highlights the importance of efforts to reduce benzodiazepine misuse in this population.

Our data provide further support for the critical role of anxiety in benzodiazepine use and misuse in those with AUD. Anxiety severity was associated with a greater likelihood of benzodiazepine misuse, even controlling for confounding variables (e.g., polysubstance use). Furthermore, relief of anxiety was the most commonly reported reason for initiating benzodiazepine misuse, and coping was the most common current motive for misuse. Accordingly, there is a clear need to improve treatment options for anxiety in this population, and to understand the degree to which findings from studies of anxiety alone (i.e., without an SUD) can be generalized to this population.

Consistent with data from large, representative surveys (e.g., National Survey on Drug Use and Health; (Center for Behavioral Health Statistics and Quality, 2019), participants in this study most commonly obtained benzodiazepines from friends or family. This finding highlights the importance of safe medication dispensing and disposal, including improvements in prescribing practices and efforts to ensure that unused medications are safely stored or safely discarded. Public health efforts, such as regulations requiring prescribers to complete prescription drug monitoring programs prior to their prescribing benzodiazepine may also be a useful strategy for mitigating this harm. Similar efforts have made for safer prescribing practices for opioids. Nonetheless, such policy changes require evaluation for their efficacy and must be carefully monitored to determine potential unintended consequences (e.g., an increase in purchasing benzodiazepines via illicit sources). Indeed, no one public health intervention is likely to be sufficient as a stand-alone for preventing benzodiazepine misuse.

Although some scholars have articulated strong opinions for the potential benefits (Park, 2017) and costs (DuPont, 2017) of prescribing benzodiazepines to people with SUDs, there is a paucity of empirical evidence that supports either position. This is an alarming gap in the literature, particularly in light of our findings that suggest that 30% of our sample of adults with severe AUD, requiring inpatient detoxification, had a lifetime history of benzodiazepine misuse, and almost half had been prescribed benzodiazepines. Notably, receiving a benzodiazepine prescription was associated with regular use among those with lifetime misuse, perhaps due to increased availability. However, receipt of a prescription was not more common in people who had ever misused compared to those who had not. Research is urgently needed to better understand the risks and benefits of benzodiazepine prescribing in this population, predictors of problematic benzodiazepine misuse or other poor outcomes, and the relative efficacy of prescribing benzos compared to alternatives (e.g., antidepressants or behavioral therapies) for indicated conditions, such as insomnia and anxiety.

There are several limitations to this study. First, we relied on self-report of benzodiazepine prescriptions and misuse, and we did not confirm this with clinical interviews or objective drug testing. Although the surveys were confidential and not shared with the clinical staff, participants may have underreported their use. Second, this was a cross-sectional study and thus we are unable to comment on the timeline of benzodiazepine and alcohol misuse or trends over time. Third, this sample was receiving inpatient detoxification from alcohol, and thus results cannot be generalized to other populations with less severe AUD or risky drinking. Additionally, our sample was predominantly white and non-Hispanic. Research of

benzodiazepine misuse in racial and ethnic minority groups is lacking and our results cannot be generalized to that population. Last, the DUMQ has not been validated for benzodiazepine misuse and the Benzodiazepine History Questionnaire has not undergone a detailed validation process.

5. Conclusion

Benzodiazepine misuse is common in people with AUD and often occurs in a risky pattern of use involving other substances. Many people report misusing benzodiazepines to mitigate anxiety, highlighting the importance of improved treatment for anxiety in this population. Nonetheless, multiple motives for benzodiazepine misuse are reported, including misusing benzodiazepines to enhance experiences or other drug effects, and polysubstance use is a strong predictor of misuse.

As very little research has focused on interventions for benzodiazepine misuse, benzodiazepine misuse prevention and treatment interventions are important topics for future research. Studies on the discontinuation of benzodiazepines have focused on people who have been prescribed these medications (and not necessarily those who misuse them); yet this literature may provide important insights into promising interventions for benzodiazepine misuse. Brief interventions have shown promise for increasing discontinuation of benzodiazepines or z-drugs in primary care settings (Lynch et al., 2020). Clinical trials also support the combination of a slow taper and cognitive behavioral therapy for discontinuation success (Otto et al., 1993; Otto et al., 2010). Future research should assess the effectiveness of such approaches for the misuse of benzodiazepines.

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Highlights

- 30% of adults with alcohol use disorder reported misusing benzodiazepines.
- Coping was the most common reason for misusing benzodiazepines.
- Many other motives for use were identified, yet social motives were uncommon.
- All with past-year benzodiazepine misuse used concurrently with another substance.

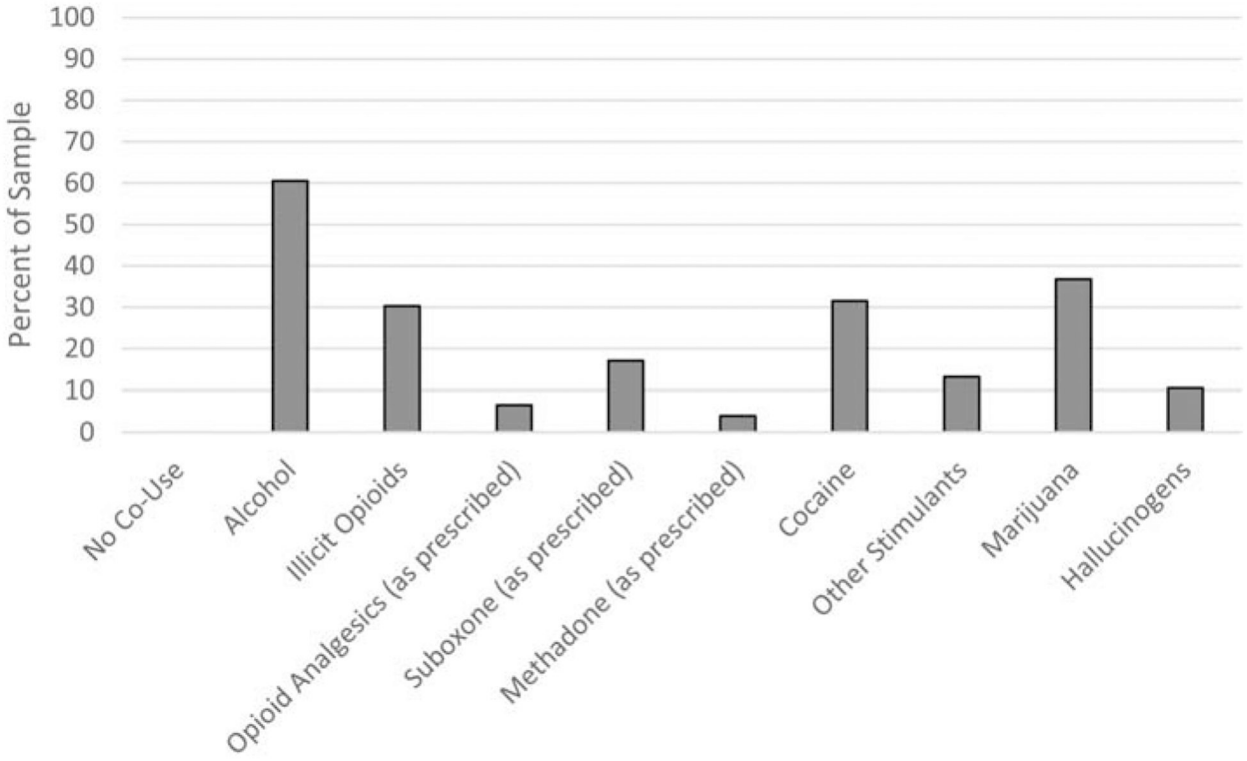

Figure 1.
Past-Year Co-Use of Benzodiazepines and Other Substances (n=55)

Table 1.

Correlates of benzodiazepine misuse among adults with AUD.

Variable	Misuse (n=76)	No Misuse (n=180)	t/χ^2	p
Age (mean, SD)	35.0 (11.4)	44.0 (12.7)	5.35	<.001
Sex (% female)	68.9%	44.7%	4.02	0.045
Race (% White)	89.2%	91.0%	0.20	0.65
Employment (% full-time employed)	39.5%	47.8%	1.47	0.23
Ever prescribed a benzodiazepine	53.9%	43.9%	2.17	0.14
Anxiety Severity score[1]	12.7 (4.1)	10.8 (4.2)	−3.19	0.002
Co-occurring psychiatric disorder (%)	76.3%	67.2%	2.10	0.15
Chronic pain[*]	24.6%	24.5%	0.00	0.99
Other substance use past 30 days[**]	60.5%	20.0%	40.31	<.001

Notes.

[1] Overall Anxiety Symptom and Impairment Scale.

[*] due to missing data N for chronic pain variable = 228;

[**] not including benzodiazepine misuse or alcohol use

Table 2.

Logistic regression models examining predictors of benzodiazepine misuse.

		95% CI	95% CI	
	OR	**Lower**	**Upper**	**p**
Model 1. Dependent Variable = Lifetime Benzodiazepine Misuse				
Age	0.96	0.93	0.99	<.01
Female	2.26	1.09	4.71	<.05
OASIS total score	1.10	1.00	1.20	<.05
White	1.26	0.42	3.80	0.69
Employed full-time	1.05	0.54	2.07	0.88
Dual diagnosis	1.22	0.54	2.77	0.64
History of benzodiazepine prescription	1.49	0.76	2.91	0.25
Other drug use	3.98	1.95	8.11	<.001
Model 2. Dependent Variable = Lifetime Regular Benzodiazepine Misuse				
Age	0.99	0.93	1.04	0.59
Female	1.36	0.37	4.99	0.64
OASIS total score	0.98	0.83	1.15	0.79
White	5.09	0.78	33.13	0.09
Employed full-time	0.62	0.19	2.01	0.43
Dual diagnosis	2.43	0.57	10.44	0.23
History of benzodiazepine prescription	4.52	1.24	16.54	<.05
Other drug use	7.83	1.93	31.77	<.01

Note. OASIS = Overall Anxiety Symptom and Impairment Scale