

Addictive Disorders 03

EPP0401

Benzodiazepine Prescription for Anxiety Disorders Increase the Risk of Substance Use Disorders: A Retrospective Cohort Study

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Introduction: While the role of benzodiazepines (BZDs) has been well established for anxiety and related disorders, there are significant concerns about BZD dependence, withdrawal, and tolerance. There is a lot of ambiguity regarding the potential long-term effects of BZDs on mental health. However, the risk of developing subsequent other substance use disorders is in question.

Objectives: In this electronic medical record (EMR) based retrospective cohort study, the study cohort was defined as patients between the ages of 18 and 65 with anxiety disorders (ICD-10-CM: F40-F48) prescribed with at least one BZD; the control cohort was defined as patients between the ages of 18 and 65 with anxiety disorders (ICD-10-CM: F40-F48) with no BZD prescription during the five-year timeframe examined. We excluded patients with pre-existing substance use disorders (ICD-10-CM: F10-F19), et al.

Methods: We collected data from TriNetX Research database, a real-time international EMR network, from September 2017 to September 2022. Patients in the two cohorts were matched by gender, age, race, ethnicity, and common medical conditions at a 1:1 ratio by propensity scoring and then underwent Kaplan–Meier analysis and association analysis.

Results: A total of 626,754 patients were identified and matched for analysis. Patients in the study cohort were more likely to be female (67.6% vs. 66.7%, $p < 0.001$), non-Hispanic (65.8% vs. 62.5%, $p < 0.001$) and white (72.8% vs. 69.1%, $p < 0.001$). Kaplan–Meier analysis showed the survival probability at the end of the time window was 94.1% for the control cohort and 89.5% for the study cohort (Hazard ratio, 2.20; 95% CI, 2.16–2.25; $P < 0.001$) in all type of substance use disorders. (Table 1)

Table 1. Hazard ratio of substance use disorders difference in BZD cohort versus the control cohort.

	BZD Cohort n (risk%)	Control Cohort n (risk%)	Hazard Ratio (95% CI)	P value
Substance Use Disorders*	26,569 (4.2)	11,976 (1.9)	2.20 (2.16–2.25)	<0.001
Sedative/hypnotic/anxiolytic related disorders	656 (0.1)	152 (0.0)	4.26 (3.57–5.09)	<0.001
Alcohol Related Disorder	5,749 (0.9)	2,064 (0.3)	2.74 (2.61–2.88)	<0.001
Opioid Related Disorder	2,807 (0.4)	815 (0.1)	3.38 (3.13–3.66)	<0.001
Stimulant Related Disorder	1,658 (0.3)	551 (0.1)	2.94 (2.67–3.24)	<0.001
Cannabis Related Disorder	3,376 (0.5)	970 (0.2)	3.41 (3.17–3.66)	<0.001

*Substance use disorders was defined as Mental and behavioral disorders due to psychoactive substance use (ICD-10-CM: F10-F19).

Conclusions: Patients with an anxiety disorder who were prescribed BZDs are at higher risk of not only BZD dependence but all types of substance use disorders than a matched cohort not prescribed BZDs. Given this notable association, clinicians should be cautious while prescribing BZDs and inform the patient about the risks associated with their utilization.

Disclosure of Interest: None Declared

EPP0402

DAILY - A Personalized Circadian Zeitgeber Therapy as an Adjunctive Treatment for Alcohol Use Disorder Patients

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Introduction: Hallmarks of alcohol use disorder (AUD) are disturbances of circadian rhythms and everyday structures. While circadian rhythms dictate the timing of daily recurring activities such as sleep, activity, and meals, conversely, these activities represent time cues, so called *Zeitgebers*, that the circadian system uses to synchronize with the environment. We have developed a novel therapy approach for AUD patients (DAILY), in which we take advantage of this mutual influence and stabilize and strengthen their circadian system by creating strict schedules for daily *Zeitgeber* activities (Hühne *et al.* Front Psychiatry 2021). Since every person has a circadian system with its own characteristics and is subject to social obligations, the daily plans are personalized for each test person.

Objectives: We investigated whether the DAILY intervention can serve to increase the success of standard psychotherapy service and reduce alcohol use and relapse in AUD patients who are currently undergoing qualitative detoxification or post-detoxification therapy and are highly vulnerable to relapse at this stage. In addition, we investigated whether possible depressive symptomatology, sleep quality, and physical recovery of the participants are improved.

Methods: In a 6-week controlled, randomized, single-blinded, parallel-group intervention study, we used detailed, 14-day diary entries to determine the optimal eating and sleeping times for each participant individually and used these to create personalized daily structure plans. Intervention participants were encouraged to adhere strictly to this plan for the following four weeks, with compliance verifiable by continuing the diary. Relapses and dropouts were documented, and questionnaires on mood state and sleep quality were completed at the beginning and end of the intervention. The control group received a sham treatment with no effect on their daily structure.

Results: Our data show that DAILY therapy significantly improves meal and sleep time regularity and significantly reduces relapse rates, with 60% relapse rate in the control group and 11% in the intervention group (Figure 1A). In addition, the data show that among the few intervention participants who had relapses, these occurred on significantly fewer days during the study period than among relapsing control participants (Figure 1B). While depressive symptoms were unaffected by the DAILY therapy, sleep quality improved significantly (Figure 2).