
Indicators of Benzodiazepines Use and Misuse in Albania

Joana Mihani, Suela Këlliçi - Faculty of Medicine, University of Medicine, Tirana

Introduction

Benzodiazepines (BZD) are a class of psychoactive drugs. Some of the most used drugs within this group are Diazepam, Chlordiazepoxide, Lorazepam, Bromazepam, Alprazolam, Clonazepam etc. BZDs are prescribed for several clinical indications: insomnia, anxiolytics, panic attack, muscle relaxant, adjuvant in bipolar therapy, alcohol withdrawal syndrome, epilepsy, etc¹. The wide use and popularity of BZD have increased concerns related to their abuse and dependence from their use. This phenomenon began in the 1980s and is present nowadays, too². For this reason, new guidelines recommend the use of BZD as second-line drugs as adjuvant therapy for their approved therapeutic indications^{3,4,5}. Few studies investigate BZD use in terms of models of prescribing and risks for misuse in Albania. According to Këlliçi et al (2013), there is a connection between young age users and the possibility of being BZD dependent in long-term users⁶. So far, health authorities have acknowledge the phenomenon of these drugs getting dispensed without medical prescription in Albania⁷.

Study aims

The goal of this study is to identify in quantitative terms BZD use and misuse in Albania.

Research objectives:

1. Identify chronic BZD user profile, most used drugs within the BZD group and reasons for BZD use.
2. Identify risk for misuse and dependence from BZD in the Albanian population.



Materials and methods

A transversal-retrospective study was conducted to evidence BZD use and misuse in Albania, with chronic BZD users. A questionnaire was administered consisting in two parts:

1. general information about the patient: socio-demographic characteristics, data according to BZD use, duration of medication use, patient experience regarding the first and last time use of a BZD.
2. an adapted version of the Benzodiazepine dependence self-report questionnaire (Bendep-SRQ)⁸. After granted permission from the author of Bendep-SRQ, the questionnaire was adapted in Albanian⁹. Two-phase sampling was used: 1) stratified selection of regions – 5 regions were selected out of 12 in the Republic of Albania, depending on the large population they cover: Tirana, Durrës, Vlora, Shkodra, and Korça. Interviews were conducted during March-May 2021, from trained persons near public health institutions, which were randomly chosen in each region. 2) 507 BZD users that fulfilled inclusion criteria were included in the survey.

Inclusion criteria for participating in the survey:

- Actual BZD user: no difference if was a user who was prescribed a BZD, or used the drug without medical prescription.
- Approximate use of a BDZ at least once a week.
- First use of a BZD at least 6 months before the interview.
- Age ≥ 18 years old.
- Ability to speak and read in Albanian.

Data were analyzed using the statistical program SPSS 26. Statistical significance was accepted for $p < 0,05$.

Results

Results for socio-demographic characteristics of the sample studied, are as per the following

- Most participants were from the Tirana (41.8%), lived in urban areas (58.8%), were females (57.4%), married (59.2%), lived with at least one family member (87%), finished high school (43.4%).
- Patient age varied from 18-93 years old, with a mean age of 53.51 ± 16.466 years old.
- Most used drugs were Diazepam, Lorazepam and Alprazolam.

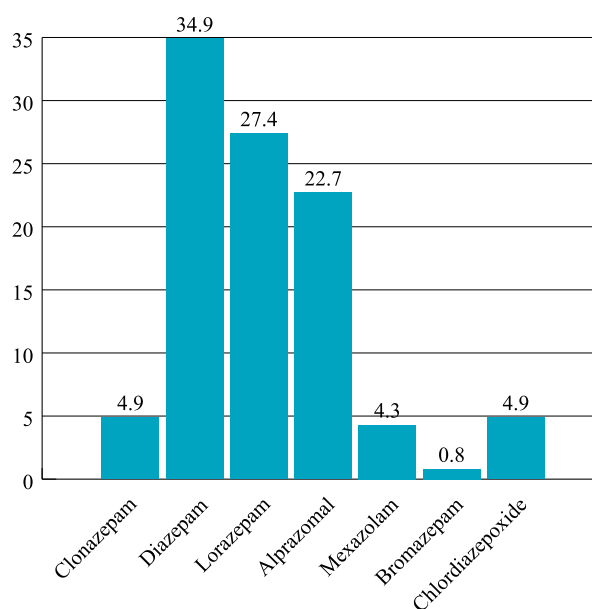


Figure 1: Reported percentage of each BZD used

- The most common reasons for BZD use were insomnia and anxiety.
- The mean duration of use of BZD was 30.24 ± 30.596 months.
- 13.6% of patients referred to receive a BZD for the first time without a medical prescription.

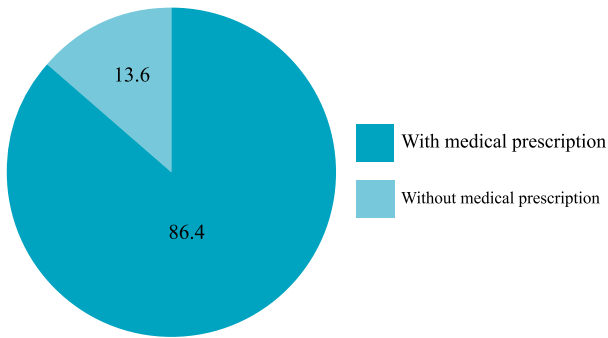
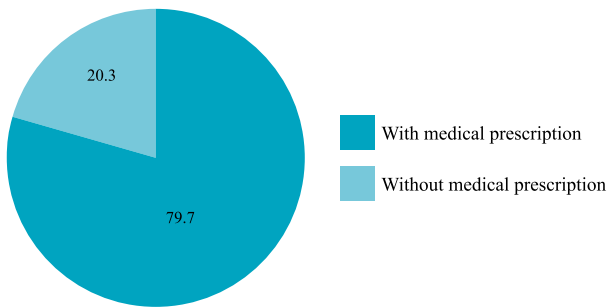


Figure 2: First time of taking a BZD

- Also, 20.3% of patients interviewed referred that they received a BZD without a medical prescription last time they used one.



Results of Benzodiazepines dependence self-report questionnaire (Bendep-SRQ)

The second part of the questionnaire was filled by 499 participants. The score results of Bendep SRQ were from 15 to 75 points, with a mean score of 39.64±10.343 points. Score results were categorized in groups; ≤30 points, was estimated as non-dependent, 31-50 points were estimated as potentially dependent, and ≥51 points, dependent.

BZD dependence status	Number	Percentage
Non-dependent (≤30)	74	14.8
Potentially dependent (31-50)	344	68.9
Dependent (≥51)	81	16.2
Total	499	100.0

To study if there is a relation between socio-demographic characteristics, reasons for using a BZD, and the tendency of being BZD dependent, we categorized users into two groups and used the binary multivariable logistic regression for a deeper analysis. The first group was the group of users “without dependence (≤30)” and the second group was users “Potentially dependent/dependent (≥31)”.

- Women not only use more BZD, but they also tend to have a higher risk of being dependent. Although the difference with men is not statistically important.
- Tirana is the region with the higher risk for having BZD dependent users, 14.56 times more possibility than the other four regions.
- A patient that uses these drugs for insomnia is 2.3 times more likely of being dependent.
- Persons that received a BZD last time without a medical prescription are 5.3 times more likely of being potentially dependent or dependent.

Recommendations

Based on the study results, the following measures are recommended, to avoid misuse and dependence of BZD in population.

- Conducting an awareness campaign on mental health problems, so that the public is more sensitive to these conditions and is treated properly by a specialized physician. 13.6% of the sample started using a BZD without a doctor’s recommendation and 20.6% of chronic users referred for the last time taking a BZD without a doctor’s recommendation, and this was related to the risk of being potentially dependent/dependent.
- Development of scientific protocols for the treatment of mild and moderate states of insomnia and anxiety, recommending the use of BZD only for short periods. The average duration of use observed of 30.24 months is much higher than the

contemporary protocols proposed by various health institutions. Expanding more appropriate and non-addictive medication alternatives for treating conditions such as insomnia. The use of BZD for the treatment of insomnia was associated with the possibility of being potentially dependent or dependent and taking into consideration their common side effect which is prolonged sedation often becomes

the cause of falls and fractures in the elderly and road accidents^{10, 11}.

- Conducting a more detailed study to determine the reasons why users in the Tirana region have a much higher tendency to be potentially dependent or dependent.
- Explore modalities to raise awareness among patients about the potential of dependence with chronic use of BZD.

References

- 1 Griffin CE 3rd, Kaye AM, Bueno FR, Kaye AD. Benzodiazepine pharmacology and central nervous system-mediated effects. *Ochsner J.* 2013;13(2):214-223. PMID: 23789008.
- 2 Wick JY. The history of benzodiazepines. *The Consultant Pharmacist: the Journal of the American Society of Consultant Pharmacists.* 2013 Sep;28(9):538-548. DOI: 10.4140/tcp.n.2013.538. PMID: 24007886.
- 3 Nielsen S. Benzodiazepines. *Curr Top Behav Neurosci.* 2017;34:141-159. doi: 10.1007/7854_2015_425. PMID: 26695165 DOI: 10.1007/7854_2015_425
- 4 Bandelow B. Current and Novel Psychopharmacological Drugs for Anxiety Disorders. *Adv Exp Med Biol.* 2020;1191:347-365. doi: 10.1007/978-981-32-9705-0_19. PMID: 32002937 DOI: 10.1007/978-981-32-9705-0_19
- 5 Thibaut F. Anxiety disorders: a review of current literature. *Dialogues Clin Neurosci.* 2017 Jun;19(2):87-88. doi: 10.31887/DCNS.2017.19.2/fthibaut. PMID: 28867933 PMID: PMC5573565
- 6 Kellici S, Hoti E, Burazeri G. Level and factors of benzodiazepines misuse in Albania. *Int J Clin Pharm.* 2013 Jun;35(3):323-6. doi: 10.1007/s11096-013-9754-3. Epub 2013 Feb 20 PMID: 23423641 DOI: 10.1007/s11096-013-9754-3
- 7 Barnat pa recetë, intensifikohen kontrollet në farmaci. <https://www.shendetesia.gov.al/barnat-pa-recete-intensifikohen-kontrollet-ne-farmaci/> Published: 11 October 2018. Accessed: 20 July 2021
- 8 Benzodiazepine dependence self-Report Questionnaire (English Version)© C.C. Kan, 1999. <https://sites.google.com/site/bendeprsq/benzodiazepine-dependence-self-report-questionnaire-english-version>. Last accessed: 28 February 2021
- 9 Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine.* 2000 Dec;25(24):3186-3191. DOI: 10.1097/00007632-200012150-00014. PMID: 11124735.
- 10 L Marron, R Segurado, R A Kenny, T McNicholas, The association between benzodiazepine use and falls, and the impact of sleep quality on this association: data from the TILDA study. *QJM.* 2020 Jan 1;113(1):31-36. doi: 10.1093/qjmed/hcz217.
- 11 Holbrook AM, Crowther R, Lotter A, Cheng C, King D. Meta-analysis of benzodiazepine use in the treatment of insomnia. *CMAJ.* 2000;162(2):225-233.

Disclaimer

This document is based on the “Indicators of Benzodiazepines use and misuse in Albania”, carried out by Joana Mihani and Suela Këlliçi. The context analysis and drafting of this document has been supported by Health for All, a project of the Swiss Agency for Development and Cooperation SDC, implemented by the Swiss Tropical and Public Health Institute (STPH).

The views and recommendations expressed in this publication are those of the authors and do not necessarily represent the official opinion of SDC, STPH nor of HAP.

A project of the Swiss Agency
for Development and Cooperation SDC



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



Implemented by

Swiss TPH

Swiss Tropical and Public Health Institute

