

Benzodiazepine consumption in Brazil: considerations regarding a population-specific scenario

Braz J Psychiatry. 2020 May-Jun;42(3):332
doi:10.1590/1516-4446-2019-0830



Around the world, benzodiazepines constitute a broadly prescribed and consumed class of medication. In the United States, three benzodiazepines appear among the 60 most prescribed medications.¹ While this class has been proven effective for treatment of anxiety, epileptic seizures, and sleep disorders,² there is a sizable body of evidence highlighting a series of side effects that may appear due to their use, including motor impairment and cognitive deficits.² Benzodiazepines are also known for their capacity to generate dependence and tolerance, leading users to consume increasing doses of medication and experience withdrawal symptoms when treatment is discontinued.³ In the event of a withdrawal syndrome, exacerbation of psychiatric conditions, such as anxiety, is expected.⁴ In more severe cases, suicidal ideation might also occur.⁵

While reports of these side effects and other risks from inadequate benzodiazepine use are common worldwide, comparatively little research has been performed in the Brazilian population. Benzodiazepines rank among the most widely prescribed medications in Brazil, and consumption of substances in this class has increased in the past decades, as suggested in a study published recently in the *Brazilian Journal of Psychiatry*.⁶

Considering the Brazilian scenario is essential for evaluation of the particular risks that may be related to widespread use of benzodiazepines in this society. A World Health Organization (WHO) report showed Brazil as the country with the highest prevalence of anxiety disorders in the world, as well as the fifth country with highest prevalence of depressive disorders.⁷ It must be remembered that there is increased risk of both anxiety and depressive symptoms to appear with benzodiazepine withdrawal.² Furthermore, benzodiazepines are known to cause alterations in sleep architecture and worsen obstructive sleep apnea (OSA).^{8,9} As found in a previous study, the prevalence of OSA in the general population can surpass 32%.¹⁰ In this sense, worsening of OSA symptoms might be particularly common in patients that use benzodiazepines and must be assessed.

Benzodiazepines can be a useful treatment option when prescribed adequately and when proper follow-up is given to patients, both to evaluate progression of side effects and to ensure the medication is discontinued at

the appropriate time. However, indiscriminate use of this class of medications has become widespread, and Brazil may be one of the leading markets. In this sense, the Brazilian physician community must raise awareness of the consequences of inappropriate benzodiazepine use and assess the presence of dependence and tolerance symptoms more closely. Given the prevalence of comorbidities that may be exacerbated by benzodiazepine use, a cautious evaluation of the intake of these drugs by the Brazilian population is a mandatory public health issue.

Vinícius **Dokkedal-Silva**, José C.F. **Galduróz**,

Sergio **Tufik**, Monica L. **Andersen**

Departamento de Psicobiologia, Universidade Federal de São Paulo, São Paulo, SP, Brazil.

Submitted Dec 18 2019, accepted Dec 30 2019, Epub Apr 3, 2020.

Acknowledgements

This work was supported by grants from Associação Fundo de Incentivo à Pesquisa (AFIP). ST and MLA received fellowships from Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

Disclosure

The authors report no conflicts of interest.

How to cite this article: Dokkedal-Silva V, Galduróz JCF, Tufik S, Andersen ML. Benzodiazepine consumption in Brazil: considerations regarding a population-specific scenario. *Braz J Psychiatry*. 2020;42:332. <http://dx.doi.org/10.1590/1516-4446-2019-0830>

References

- 1 Fuentes AV, Pineda MD, Venkata KC. Comprehension of top 200 prescribed drugs in the US as a resource for pharmacy teaching, training and practice. *Pharmacy (Basel)*. 2018;6(2).
- 2 Longo LP, Johnson B. Addiction: part I. Benzodiazepines--side effects, abuse risk and alternatives. *Am Fam Physician*. 2000;61:2121-8.
- 3 Lader M. Benzodiazepine harm: how can it be reduced? *Br J Clin Pharmacol*. 2014;77:295-301.
- 4 Soyka M. Treatment of benzodiazepine dependence. *N Engl J Med*. 2017;376:1147-57.
- 5 Dodds TJ. Prescribed benzodiazepines and suicide risk: a review of the literature. *Prim Care Companion CNS Disord*. 2017;19(2).
- 6 Madruga CS, Paim TL, Palhares HN, Miguel AC, Massaro LT, Caetano R, et al. Prevalence of and pathways to benzodiazepine use in Brazil: the role of depression, sleep, and sedentary lifestyle. *Braz J Psychiatry*. 2019;41:44-50.
- 7 World Health Organization (WHO). Depression and other common mental disorders: global health estimates [Internet]. 2017 Apr 7 [cited 2019 Dec 16]. apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf
- 8 Hanly P, Powles P. Hypnotics should never be used in patients with sleep apnea. *J Psychosom Res*. 1993;37 Suppl 1: 59-65.
- 9 Lader M. Benzodiazepines revisited--will we ever learn? *Addiction*. 2011;106:2086-109.
- 10 Tufik S, Santos-Silva R, Taddei JA, Bittencourt LR. Obstructive sleep apnea syndrome in the Sao Paulo epidemiologic sleep study. *Sleep Med*. 2010;11:441-6.