### LETTERS TO THE EDITOR

# Suicide by hanging in Brazil: challenges to mitigating its escalation

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Suicide by hanging is one of the leading methods of selfinflicted death in the world, both in developed countries and in Brazil.<sup>1,2</sup> Already common, this method is steadily growing at an alarming rate. According to the Brazilian Ministry of Health Mortality Information System (SIM), between 1996 and 2016, there were 183,384 deaths by suicide in the country. During this period, the most used methods were hanging (58%), firearm (14%), and self-poisoning by pesticides or other chemicals (10%). The variation of suicide methods over time shows an absolute increase in the number of suicides by hanging from 3,027 in 1996 to 7,813 in 2016 (Figure 1). When the relative contribution of each suicide method was compared at these two time points, hanging was found to have increased from 45% of all cases of suicide in Brazil in 1996 to was 68% in 2016, representing a proportional increase of 51.1% over 20 years. Stratified by sex, while 48% of cases among men in 1996 were by hanging, the proportion increased to 72% in 2016; likewise, for women, the proportion increased from 34 to 56% in the same period.

Factors associated with the popularity of this method are the wide availability of the materials used for hanging and the view that it would constitute a rapid, clean, painless and bloodless method of death.<sup>3</sup> Ropes, straps and the places from which these objects are hung (beams, rails, hooks, doorknobs, and trees) are easily reachable.<sup>3</sup> The probability of death by hanging is associated with male sex, older age, living in rural areas, and low educational level. Most of these cases occur at home; only one in 10 occur in institutions such as hospitals and prisons.<sup>4</sup> Furthermore, people who attempted suicide by hanging have higher chances of future completed suicide when compared with those who attempt other methods.<sup>4</sup>

Knowledge of the methods used for suicide is important for implementing suicide prevention strategies. From a public health standpoint, developing universal prevention strategies for this method is particularly challenging due to

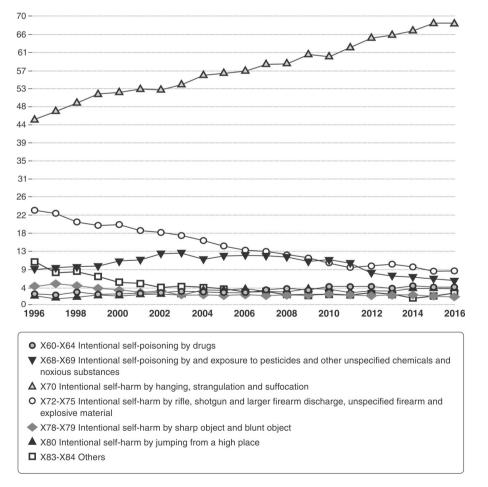


Figure 1 Proportion of methods of suicide in Brazil (1996-2016).

the fact it is most commonly carried out in the home, the ready availability of the materials used, and widespread perceptions about the method. Feasible strategies for the prevention of suicide by hanging must involve greater vigilance in institutional settings and adequate management of patients with previous attempts and patients with mental disorders. The scarcity of effective preventive measures to reduce escalation of this form of suicide demands a comprehensive discussion among professionals, families, and health managers who are at the frontline of care of suicidal people. Future research should focus on the details of deeply rooted perceptions about the meaning of death by hanging in different cultures and the origins of this knowledge as used by suicidal individuals, in order to reduce their willingness to plan suicide by this method.

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### Disclosure

The authors report no conflicts of interest.

#### Reference

- 1 Bertolote JM. O suicídio e sua prevenção São Paulo: Unesp; 2012.
- 2 Starkuviene S, Kalediene R, Petrauskiene J. Epidemic of suicide by hanging in Lithuania: does socio-demographic status matter? Public Health. 2006;120:769-75.
- 3 Biddle L, Donovan J, Owen-Smith A, Potokar J, Longson D, Hawton K, et al. Factors influencing the decision to use hanging as a method of suicide: qualitative study. Br J Psychiatry. 2010;197:320-5.
- 4 Gunnell D, Bennewith O, Hawton K, Simkin S, Kapur N. The epidemiology and prevention of suicide by hanging: a systematic review. Int J Epidemiol. 2005;34:433-42.

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## Treating nightmares in PTSD with doxazosin: a report of three cases

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This paper reports three cases of patients successfully treated with doxazosin, as an alternative to prazosin, for nightmares associated with posttraumatic stress disorder (PTSD). All patients were male, middle-aged, severely ill, and had comorbid major depressive disorder (MDD). They developed PTSD after the Kiss nightclub fire in 2013, and were receiving care at a specialized outpatient clinic at the University Hospital of Santa Maria, Rio Grande do Sul, Brazil. A thorough clinical evaluation was conducted, including of specific sleep aspects (latency, length, frequency of nightmares, etc.)

The first patient was a relative of a victim and a survivor. He was taking venlafaxine 225 mg, quetiapine 125 mg, and chlorpromazine 200 mg, and reported nightmares at least three times a week. Doxazosin 1 mg at night was prescribed. After 2 weeks, he reported no more nightmares, but insomnia persisted as at presentation. Doxazosin was progressively increased to 4 mg in an attempt to improve insomnia, and chlorpromazine was reduced to 100 mg to avoid side effects. After 4 months of follow-up, he remained free of nightmares, but insomnia continued.

The second patient had helped rescue the victims. He also had type 2 diabetes mellitus and hypercholesterolemia. He was taking sertraline 200 mg, chlorpromazine 300 mg, and clonazepam 2 mg. He reported nightmares twice a week and consequent intermediate insomnia. He was very reluctant to reduce chlorpromazine or clonazepam doses, fearing that his symptoms would worsen. Doxazosin 2 mg at night was prescribed. He returned 7 weeks later without nightmares or insomnia.

The third patient was a survivor of the fire. He was taking sertraline 200 mg, lithium carbonate 1,500 mg, and clonazepam 1 mg. He was depressed and reported nightmares and insomnia. Doxazosin was started at a dose of 1 mg; after 2 weeks, nightmares had decreased. After 45 days, doxazosin was increased to 2 mg. At follow-up, he reported nightmares less than once a week.

Nightmares are core symptoms of PTSD, and even contribute to increasing rates of suicide among these patients.<sup>1</sup> Although antidepressants are considered the first-line treatment for PTSD, no evidence has found that these drugs are superior to placebo in treating PTSD-related insomnia and nightmares.<sup>2</sup>

Doxazosin, an alpha1-adrenergic antagonist prescribed to treat benign prostatic hyperplasia, is widely available for users of the Brazilian public health system. Furthermore, it has a long half-life (16 to 30 hours), allowing not only easy dosage, but maintenance of effect throughout the night. Finally, its good absorption profile reduces the risk of hypotension. All of these characteristics positively differentiate doxazosin from its analogue, prazosin, which has been described as an efficacious adjuvant treatment for PTSD-associated nightmares.<sup>3</sup>

To the best of our knowledge, this is the first case series of Brazilian patients with PTSD successfully treated with adjuvant doxazosin for associated nightmares. After initiation of adjunctive doxazosin, two patients were free from nightmares and one experienced improvement for up to 7 weeks. Our findings are in accordance with those of a review of medical records<sup>4</sup> and a pilot clinical trial,<sup>5</sup> but placebo-controlled studies are needed to confirm it.