

# Havana Syndrome: Social Contagion or Mass Psychogenic Illness?

Arlen Gaba, BS, and Sahil Munjal, MD

**H**avana syndrome, a controversial condition primarily affecting American diplomats in Cuba and China between 2016 and 2018, presents with symptoms including tinnitus, headaches, vertigo, and altered cognitive function. The etiology remains unclear, with proposed causes ranging from pulsed radiofrequency waves to communicable infectious diseases like Zika to psychological disorders.<sup>1</sup> The limited diagnostic clarity in the medical literature has led to significant US government investment in research of this condition.<sup>2</sup> In light of that research, we report a case of a patient with self-reported Havana syndrome, highlighting the associated treatment challenges.

## Case Report

A 50-year-old woman with no relevant psychiatric history was admitted to the emergency department due to a lower extremity laceration injury from a motor vehicle accident. The psychiatry department assessed her for paranoid ideations concerning radiation and pulsating radiofrequency waves that prevented her from entering the operating room for wound closure. She had prior concerns of paranoia and delusional disorder, reporting intelligence agency persecution requiring brief hospitalization, but no formal diagnosis or medication, as she was not deemed a danger to herself or others. She reported 2 years of persistent somatic symptoms of vertigo, headache, and palpitations,

which she attributed to Havana syndrome. She recalled that symptoms began in the basement of her old home, due in part to electrical waves from powerlines. Previous records indicated the use of bizarre garb such as protective vests and yoga mats to shield her from radiofrequency waves. She lacked ties to government entities, had limited family support, and had been unemployed for an extended period following a previous accident. She had not traveled internationally or in locales with governmental reports of the syndrome.

She screened negative for depression, anxiety, mania, and psychosis. No evidence of delirium, acute intoxication, or primary thought disorders was evident. During the assessment, and multiple other engagements with social work, we obtained collateral reports from online acquaintances who supported the patient's self-diagnosis of Havana syndrome and claimed to have similar symptoms. Frequently, the patient shared live medical interactions on Facebook, which was believed to be the same support group from whom the patient requested us to obtain additional collateral information. Ultimately, she refused surgical closure and was subsequently discharged.

## Discussion

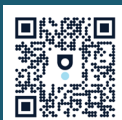
Havana syndrome has garnered widespread media attention, and its symptoms have been widely disseminated in the news and in online forums. Beyond diplomats, tourists

also reported similar symptoms after visiting affected hotels, marking the emergence of non-diplomatic cases.<sup>3</sup> Experts in psychogenic mass illness have drawn parallels between this syndrome and historical instances of "shellshock," suggesting that many new cases resulted from suggestion after exposure when treated in clinics specializing in the somatic complaints.<sup>4</sup>

Psychogenic illness is not described in the *DSM-5*; the *DSM-IV-TR* previously referenced "epidemic hysteria" in the discussion of conversion disorder.<sup>5,6</sup> Delusional disorder in the *DSM-5* is described as an inaccurate interpretation of external reality despite evidence on the contrary; the belief is incongruent with one's culture or subculture.<sup>5,7</sup> Despite absent formal psychiatric recognition, social scientists recognize mass psychogenic illness through the lens of social contagion, defined as the spontaneous dissemination of emotions, behavior, or conditions within a network.<sup>8</sup>

Our patient had not previously met criteria for delusional disorder or conversion disorder. Absent of psychiatric diagnosis, she also had weak social ties and relied on online platforms and acquaintances that reinforced her beliefs about her illness. More poorly connected online users are more likely to notice and act on information, making them very susceptible to social contagion.<sup>9</sup> In our patient's case, a blend of predisposition to paranoid thoughts, online social contagion mimicking

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potential psychogenic illness, and a notably lacking support system of credible close acquaintances likely influenced her presentation.

As Havana syndrome continues to remain elusive in its origin, clinicians must recognize that it may not be limited to diplomats and could manifest in patients vulnerable to delusions or paranoia, exacerbated by online social contagion. Although we cannot definitively attribute our patient's experience to delusions or organic pathology, patients reporting somatic symptoms may face unique challenges if their beliefs hinder medical treatment, as observed in this case.

## Article Information

**Published Online:** March 7, 2024.

<https://doi.org/10.4088/PCC.23cr03640>

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**Submitted:** September 4, 2023; accepted: November 20, 2023.

**To Cite:** Gaba A, Munjal S. Havana syndrome: social contagion or mass psychogenic illness? *Prim Care Companion CNS Disord.* 2024;26(2):23cr03640.

**Author Affiliations:** Wake Forest University School of Medicine, Winston Salem, North Carolina (all authors); Department of Psychiatry, Wake Forest University School of Medicine, Winston Salem, North Carolina (Munjal).

**Corresponding Author:** Arlen Gaba, BS, 1 Medical Center Blvd, Winston-Salem, NC 27103 (Agaba@wakehealth.edu).

**Relevant Financial Relationships:** None.

**Funding/Support:** None.

**Additional Information:** The information presented in this case report has been de-identified to protect patient anonymity.

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