EDITORIAL

MDMA-assisted psychotherapy for the treatment of PTSD

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The current standards of care for posttraumatic stress disorder (PTSD) within the U.S. Department of Veterans Affairs (VA) and U.S. Department of Defense (DoD) are two trauma-focused therapies (prolonged exposure therapy and cognitive processing therapy) and the selective serotonin reuptake inhibitors (SSRIs) sertraline and paroxetine.^{1,2} While trauma-focused therapy is effective, it is emotionally demanding, requires skilled psychotherapists, and has a high dropout rate.^{1,3} It is estimated that one-quarter of patients drop out of trauma-focused therapy, and up to one-half are left with significant residual symptoms.³ SSRIs, which have side effects and require daily dosing, are effective in less than 60% of patients. A recent randomized controlled trial found no difference in PTSD symptom severity at 24 weeks between treatment groups that received prolonged exposure therapy plus placebo, sertraline plus enhanced medication management, and prolonged exposure therapy plus sertraline.² At this time, there is a need for better treatments of PTSD in countries such as Brazil, where it is estimated that 5% of the civilian population met criteria for PTSD in the past year, and 10% of the population has met criteria for PTSD in their lifetime.4

Recently, there has been a call for "disruptive pharmacology" to investigate new treatments with novel mechanisms that have previously been restricted. At the forefront of this movement are the classic psychedelics, psilocybin, LSD, and ayahuasca, as well as the entactogen 3,4-methylenedioxymethamphetamine (MDMA).⁵ MDMA, also known as ecstasy, has demonstrated efficacy for the treatment of PTSD in military veterans and first responders.⁵ It is currently in phase III clinical trials in the United States and has been designated as a "break-through therapy" for the treatment of PTSD by the U.S. Food and Drug Administration (FDA).⁵

Brazil has a long history of psychedelic use in religious and healing ceremonies. More recently, Brazilian scientists have been involved in pioneering efforts in psychedelic research with ayahuasca.⁵ The recent proof-ofconcept study by Jardim et al. investigates the efficacy of MDMA for the treatment of PTSD in survivors of civilian sexual trauma, and is the first published clinical study using MDMA in Brazil. This study also assesses the efficacy of MDMA-assisted psychotherapy (MDMA-AP) and demonstrates that 15 sessions of psychotherapy,

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three in conjunction with MDMA, can lead to significant reductions in symptoms of PTSD as measured by the Clinician Administered PTSD Scale for DSM-IV (CAPS-4).⁴

While Jardim et al.'s study only enrolled three participants, all three had clinically significant reductions in CAPS-4 scores of 32%, 65%, and 89% from baseline. Two of the patients no longer met criteria for PTSD at the end of the study. Secondary measures indicated that participants also had significant positive psychological change in managing their PTSD symptoms and reductions in their depressive symptoms as evidenced by the Post Traumatic Growth Inventory (PTGI) and Beck Depression Inventory (BDI), respectively. The response to treatment was consistent with outcomes previously observed in Multidisciplinary Association for Psychedelic Studies (MAPS) phase II clinical trials. There were no serious adverse outcomes.⁴

Aside from providing more clinical data, Jardim et al.'s study demonstrates that the MAPS MDMA-AP protocol for PTSD can be administered by trained clinicians and researchers around the world. It suggests that MDMA-AP is scalable and has potential to be implemented in more countries that have a high prevalence of PTSD. As a result of Jardim et al.'s study, Brazilian researchers have joined the ranks of colleagues in the U.S., Israel, and Switzerland that have successfully implemented MDMA-AP for the treatment of PTSD. Additional studies using MDMA-AP for the treatment of PTSD are justified in Brazil and abroad.

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References

- Steenkamp MM, Litz BT, Marmar CR. First-line Psychotherapies for Military-Related PTSD. JAMA. 2020 Jan 30. doi: 10.1001/jama.2019. 20825. Online ahead of print
- 2 Rauch SA, Kim HM, Powell C, Tuerk PW, Simon NM, Acierno R, et al. Efficacy of prolonged exposure therapy, sertraline hydrochloride, and their combination among combat veterans with posttraumatic stress

disorder: a randomized clinical trial. JAMA Psychiatry. 2019;76: 117-26.

- 3 McDonald WM, van Rooij SJ. Targeting PTSD. Am J Psychiatry. 2019;176:894-6.
- 4 Jardim AV, Jardim DV, Chaves BR, Steglich M, Ot'alora GM, Mithoefer MC, et al. 3,4-methylenedioxymethamphetamine (MDMA)assisted psychotherapy for victims of sexual abuse with severe posttraumatic stress disorder: an open label pilot study in Brazil. Braz J Psychiatry. 2021;43:181-5.
- 5 Reiff CM, Richman EE, Nemeroff CB, Carpenter LL, Widge AS, Rodriguez CI, et al. Psychedelics and psychedelic-assisted psychotherapy. Am J Psychiatry. 2020;177:391-410.