The Secret Life of Disco Biscuits: The Utilization of MDMA for the treatment of PTSD

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#### Abstract

The drug called 3,4-Methylenedioxymethamphetamine, commonly known as MDMA or Ecstasy, is proving useful for treating clients who present with post-traumatic stress disorder. The drug's current scheduling classification limits its potential use in clinical trials. Recent research shows positive trends for individuals who simultaneously undergo MDMA treatment and psychotherapy. Some cautions and limitations have been noted. Reclassification of the drug would help increase future research opportunities.

Keywords: PTSD, MDMA, treatment, drug classification, clinical trials

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The drug labeled 3,4-Methylenedioxymethamphetamine, better known as MDMA or Ecstasy, is not typically associated with psychotherapy, clinical interventions, and combating post-traumatic stress disorder [PTSD]. Derivatives of MDMA are associated with parties, festivals, and nightclub atmospheres. MDMA is currently considered a Schedule I drug. Schedule I drugs have a high potential for abuse. This classification does not seem to prevent MDMS's appearance in party culture; however, it's scheduling by the FDA dramatically impacts its ability to be utilized for clinical trials. Regardless, emerging evidence suggests that MDMA may be clinically appropriate for treating trauma symptoms and PTSD. (Amoroso & Workman, 2016; Mithoefer, Wagner, Mithoefer, Jerome, & Doblin, 2011; Wagner et al., 2017).

### Molly, Interrupted

MDMA made history previously for its psychotherapeutic properties. In the 1970s and 1980s, psychiatrists found that clients on MDMA were more insightful, communicative, and less stressed (Wagner et al., 2017). Unfortunately, during the 1980s, instances of abuse and addiction to MDMA began to spread. In 1985, MDMA earned placement on the Schedule I drug list. This classification indicated that there were no medical uses for the drug and that the possibility of addiction was high. Since the ban in 1985, researchers have struggled to gain approval from the FDA to continue studying the efficacy of MDMA on psychological disorders.

### The Trouble with Trouble

PTSD treatment combines pharmacology and psychotherapy (Schrader & Ross, 2021). Veteran populations who meet the criteria for PTSD are frequently offered prolonged exposure [PE] therapy. The rate of veterans who finish treatment is low (6.3%) due to exposure therapy's often disruptive and triggering nature (Shiner et al., 2013). Additionally, only about 20-30% of individuals with PTSD respond effectively to pharmacological interventions (Amoroso & Workman, 2016). Cognitive processing therapy [CPT], as well as eye movement desensitization and reprocessing [EMDR], are two frequently sought-after treatment modalities for the treatment of PTSD (Bisson & Olff, 2021). When combined with psychopharmacology, PE, CPT, and EMDR, interventions still appeared ineffective for 25%-50% of individuals seeking help (Mithoefer, Wagner, Mithoefer, Jerome, & Doblin, 2011).

The studies supporting the use of MDMA for the treatment of PTSD are limited, yet the findings are hopeful. Amoroso and Workman (2016) found that MDMA studies had similar effect sizes to PE studies. Their research also demonstrated a higher retention rate of individuals in active treatment than in counterpart PE studies. PE requires clients to relive their traumatic experiences, which can retraumatize and serve as a deterrent to continuing treatment. In 2018, Mithofer et al. found that PTSD symptom reduction lasted beyond a year post-treatment. In a more recent meta-analysis of the current literature Feduccia, Jerome, Klosinski, Emerson, Mithoefer, and Doblin (2019) found that MDMA-assisted therapy performed as well as traditional psychotherapy and psychopharmacology in addressing trauma-related symptoms.

MDMA treatment offers a pleasurable experience in a comfortable room with a therapist attending to the client for eight hours (Amoroso & Workman, 2016). Research outcomes demonstrated that 80% of participants who underwent concomitant MDMA and psychotherapy treatments for PTSD reported a significant reduction in symptoms after only three sessions (Ohen, Traber, Widmer, & Schnyder, 2013; Jerome et al., 2020). MDMA treatments have also been shown to improve perceived relationship satisfaction in relationships where one partner is diagnosed with PTSD (Monson et al., 2020). In more recent studies, after completing treatment, participants report feeling increases in self-awareness and relationship and social skills and a decrease in poor coping skills such as substance use (Barone, Beck, Mitsunaga-Whitten, & Perl, 2019). MDMA treatments are also considered effective for autistic adult clients who experience social anxiety and clients who deal with anxiety associated with a life-threatening illness (Wagner et al., 2020). Participants in a study by Wagner, Mithoefer, Mithoefer, and Monson (2019) reported that they could recall and experience previously intrusive memories with ease and without adverse reactions.

## **Implications with Vitamin X**

There are apparent clinical drawbacks to the use of MDMA for PTSD. Clients receive only three to five sessions; however, each of these sessions is approximately eight hours long and often requires two therapists to reduce the therapists' fatigue (Wagner et al., 2017; Wagner, Mithoefer, Mithoefer & Monson, 2019). The MDMA protocol requires a medical staff present to monitor vital signs. While Ohen et al. (2013) found no adverse side effects, there is the possibility that individual body chemistry could react negatively to MDMA. MDMA use can potentially affect memory, executive functioning, and other neurocognitive processes. However, The Practitioner Scholar: Journal of the International Trauma Training Institute Volume 4, 2022 Clinicians' Corner

the evidence of these adverse side effects during MDMA therapy sessions is lacking (Sessa, Higbed, Nutt, 2019).

The possibility that clients could become addicted to MDMA is also concerning. MDMA addiction, when appropriately administered, is unlikely, as the amount of MDMA used is far below recreational levels and client exposure to the drug is closely monitored (Mithoefer et al., 2011; Ohen et al., 2013). FDA scheduling issues prohibit the availability of pure MDMA, and there is not a clear licensing or credentialing requirement for prescribers. Furthermore, the accessibility of the treatment is also ambiguous. It is unclear if clients would pay out of pocket or depend on insurance companies to pay for this treatment. Would each provider charge separately, or would they be billed together?

As new evidence surfaces that continue to support MDMA as a legitimate treatment for PTSD, evidence-based protocols for the use of MDMA will need development. Advocating for MDMA to be removed as a Schedule I class drug may open up even more opportunities for its efficacy as a treatment modality available for further research. While MDMA appears to help reduce PTSD symptoms, additional pieces need to fall into place before MDMA becomes a genuinely viable treatment option for PTSD.

#### References

- Amoroso, T., & Workman, M. (2016). Treating post-traumatic stress disorder with MDMAassisted psychotherapy: A preliminary meta-analysis and comparison to prolonged exposure therapy. *Journal of Psychopharmacology*, 30(7), 595–600. https://doi.org/T
- Barone, W., Beck, J., Mitsunaga-Whitten, M., & Perl, P. (2019). Perceived benefits of MDMAassisted psychotherapy beyond symptom reduction: Qualitative follow-up study of a clinical trial for individuals with treatment-resistant PTSD. *Journal of Psychoactive Drugs*, 51(2), 199–208. <u>https://doi.org/10.1080/02791072.2019.1580805</u>
- Bisson, J. I., & Olff, M. (2021). Prevention and treatment of PTSD: the current evidence base. *European journal of psychotraumatology*, *12*(1), 1824381. https://doi.org/10.1080/20008198.2020.1824381
- Curry, D. W., Berro, L. F., Belkoff, A. R., Sulima, A., Rice, K. C., & Howell, L. L. (2019). Sensitization to the prosocial effects of 3,4-methylenedioxymethamphetamine (MDMA). *Neuropharmacology*, 151, 13–20. https://doi.org/10.1016/j.neuropharm.2019.03.017
- Feduccia, A. A., Jerome, L., Yazar-Klosinski, B., Emerson, A., Mithoefer, M. C., & Doblin, R. (2019). Breakthrough for trauma treatment: Safety and efficacy of MDMA-assisted psychotherapy compared to Paroxetine and Sertraline. *Frontiers in Psychiatry*, 10. https://doi.org/10.3389/fpsyt.2019.00650
- Jerome, L., Feduccia, A. A., Wang, J. B., Hamilton, S., Yazar-Klosinski, B., Emerson, A., Mithoefer, M. C., & Doblin, R. (2020). Long-term follow-up outcomes of MDMAassisted psychotherapy for treatment of PTSD: A longitudinal pooled analysis of six phase 2 trials. *Psychopharmacology*, 237(8), 2485–2497. https://doi.org/10.1007/s00213-020-05548-2

Mithoefer, M. C., Mithoefer, A. T., Feduccia, A. A., Jerome, L., Wagner, M., Wymer, J.,

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Holland, J., Hamilton, S., Yazar-Klosinski, B., Emerson, A., & Doblin, R. (2018). 3,4methylenedioxymethamphetamine (MDMA)-assisted psychotherapy for post-traumatic stress disorder in military veterans, firefighters, and police officers: A randomized, double-blind, dose-response, phase 2 clinical trial. *The Lancet Psychiatry*, *5*(6), 486–497. https://doi.org/10.1016/s2215-0366(18)30135-4

- Mithoefer, M. C., Wagner, M. T., Mithoefer, A. T., Jerome, L., & Doblin, R. (2010). The safety and efficacy of 3,4-methylenedioxymethamphetamine-assisted psychotherapy in subjects with chronic, treatment-resistant post-traumatic stress disorder: The first randomized controlled pilot study. *Journal of Psychopharmacology*, 25(4), 439–452. https://doi.org/10.1177/0269881110378371
- Monson, C. M., Wagner, A. C., Mithoefer, A. T., Liebman, R. E., Feduccia, A. A., Jerome, L., Yazar-Klosinski, B., Emerson, A., Doblin, R., & Mithoefer, M. C. (2020). MDMAfacilitated cognitive-behavioural conjoint therapy for post-traumatic stress disorder: An uncontrolled trial. *European Journal of Psychotraumatology*, 11(1), 1840123. https://doi.org/10.1080/20008198.2020.1840123
- Oehen, P., Traber, R., Widmer, V., & Schnyder, U. (2012). A randomized, controlled pilot study of MDMA (±3,4-Methylenedioxymethamphetamine)-assisted psychotherapy for treatment of resistant, chronic Post-Traumatic Stress Disorder (PTSD). *Journal of Psychopharmacology*, 27(1), 40–52. https://doi.org/10.1177/0269881112464827
- Parrott, A. C. (2013). Human psychobiology of MDMA or "Ecstasy": An overview of 25 years of empirical research. *Human Psychopharmacology: Clinical and Experimental*, 28(4), 289–307. <u>https://doi.org/10.1002/hup.2318</u>
- Schrader, C., & Ross, A. (2021). A Review of PTSD and Current Treatment Strategies. *Missouri* medicine, 118(6), 546–551.
- Sessa, B., Higbed, L., & Nutt, D. (2019). A review of 3,4-methylenedioxymethamphetamine (MDMA)-assisted psychotherapy. *Frontiers in Psychiatry*, 10(138). https://doi.org/10.3389/fpsyt.2019.00138
- Shiner, B., D'Avolio, L. W., Nguyen, T. M., Zayed, M. H., Young-Xu, Y., Desai, R. A., Schnurr, P. P., Fiore, L. D., & Watts, B. V. (2012). Measuring use of evidence based psychotherapy for Posttraumatic Stress Disorder. *Administration and Policy in Mental Health and Mental Health Services Research*, 40(4), 311–318. https://doi.org/10.1007/s10488-012-0421-0
- Wagner, A. C., Mithoefer, M. C., Mithoefer, A. T., & Monson, C. M. (2019). Combining cognitive-behavioral conjoint therapy for PTSD with 3,4methylenedioxymethamphetamine (MDMA): A case example. *Journal of Psychoactive Drugs*, 51(2), 166–173. https://doi.org/10.1080/02791072.2019.1589028
- Wagner, M. T., Mithoefer, M. C., Mithoefer, A. T., MacAulay, R. K., Jerome, L., Yazar-Klosinski, B., & Doblin, R. (2017). Therapeutic effect of increased openness: Investigating mechanism of action in MDMA-assisted psychotherapy. *Journal of Psychopharmacology*, *31*(8), 967–974. https://doi.org/10.1177/0269881117711712
- Yazar-Klosinski, B., & Mithoefer, M. (2017). Potential psychiatric uses for MDMA. *Clinical Pharmacology & Therapeutics*, 101(2), 194–196. https://doi.org/10.1002/cpt.565