PSYCHEDELICS IN THERAPY

**DMT**

A “CLASSIC PSYCHEDELIC” AND PLANT-DERIVED INDOLEAMINE PART OF THE TRYPHTAMINES. IT’S A NATURALLY OCCURRING ALKALOIDS FOUND IN VARIOUS PLANTS OR IN THE FORM OF A RITUALISTIC BREW CALLED AYAHUASCA.

**MECHANISM OF ACTION**

IT TARGETS THE 5-HT2A AND 5-HT2C RECEPTORS. DECREASES CONNECTIVITY BETWEEN STRUCTURES OF THE DEFAULT MODE NETWORK.

**BEHAVIORAL EFFECTS**

INCREASED WELLBEING AND LIFE SATISFACTION, POSITIVE OR BLISSFUL STATE, PRO-SOCIAL ATTITUDE, ASSOCIATIVE LEARNING, CHANGES IN VISUAL PERCEPTION, MYSTICAL EXPERIENCES, PARANOID HALUCINATIONS, DEPERSONALIZATION AND DEREALIZATION.

**AT 0.8 MG / ML**

IT HAS SHOWN PROMISING RESULTS IN TREATING MAJOR DEPRESSION WITH FAILURE OF ONE ANTIDEPRESSANT. EFFICACY IN TREATING TREATMENT-RESISTANT MDD.

**MDMA**

A “CLASSIC PSYCHEDELIC” AND NITRO-SUBSTITUTED PHENETHILAMINE WITH STRUCTURAL SIMILARITIES TO AMPHETAMINE AND MESCALINE. IT’S NOTORIOUS FOR BEING LEGAL IN SOME COUNTRIES, AND QUITE POPULAR AMONG TEENAGERS AND YOUNG ADULTS.

**MECHANISM OF ACTION**

IT PRIMARILY ACTS BY INHIBITING THE REUPTAKE OF SEROTONIN (SERT), MORE SPECIFICALLY 5-HT2A, DOPAMINE (DAT), AND NORADRENALINE (NET).

**BEHAVIORAL EFFECTS**

THE PRINCIPAL EFFECTS OF MDMA INCLUDE ENHANCING PRO-SOCIAL BEHAVIOR AND SPECIFICALLY TARGETING FEAR MEMORIES. IT ALSO LEADS TO INCREASED FEELINGS OF A DEEPRER MEANING IN LIFE, EUPHORIA, AND OVERALL WELLBEING. COMMON PERCEPTUAL EFFECTS INCLUDE CHANGES IN BODY PERCEPTION, MILD VISUAL AND AUDITORY ALTERATIONS, WITHOUT HALLUCINATIONS. THE DOSAGE OF MDMA AND THE INDIVIDUAL’S BODY WEIGHT PLAY CRUCIAL ROLES IN DETERMINING BOTH THE PHYSICAL AND PSYCHOLOGICAL EFFECTS OF THE DRUG.

**AT 75 - 125 MG DOES**

MDMA-ASSISTED PSYCHOTHERAPY HAS SHOWN EFFICACY IN THE TREATMENT OF PTSD, SOCIAL ANXIETY DISORDER AND ALCOHOL USE DISORDER.

**Psilocybin**

A “CLASSIC PSYCHEDELIC” AND PLANT-DERIVED INDOLEAMINE PART OF THE TRYPHTAMINES. IT’S COMMONLY FOUND IN MEMBERS OF THE PSilocybe MUSHROOM FAMILY.

**MECHANISM OF ACTION**

IT AFFECTS SEROTONIN RECEPTORS (5-HT2A AND 5-HT2C), REGULATING MOOD AND ANXIETY. IT INHIBITS SEROTONIN TRANSPORTER BETTER THAN LSD IMPACTING GLUTAMINERGIC TRANSMISSION AND PROMOTING NEUROPLASTICITY. IT REDUCES CONNECTIVITY IN THE DEFAULT MODE NETWORK AND LOWERS AMYGDALA REACTIVITY AFTER A WEEK.

**BEHAVIORAL EFFECTS**

IT AFFECTS VISUAL PERCEPTION AND CAN INDUCE MYSTICAL EXPERIENCES, PARANOID HALLUCINATIONS, DEPERSONALIZATION AND DEREALIZATION. IT ALSO ENHANCES COGNITIVE FLEXIBILITY, CREATIVITY, INSIGHTFULNESS, ASSOCIATIVE LEARNING, AND MAY LEAD TO DISTRACTIBILITY AND DISORGANIZED BEHAVIOR.

**AT LOW DOSES (0.15 - 0.27 MG/KG)**

VISUAL ILLUSIONS AND HALLUCINATIONS) AND OCEANIC BOUNDLESSNESS (POSITIVELY EXPERIENCED LOSS OF EGO BOUNDARIES ASSOCIATED WITH CHANGES IN THE SENSE OF TIME AND EMOTIONS).

**AT HIGH DOSES (30 - 43 MG/KG)**

GREATER IMPROVEMENTS IN PSYCHOLOGICAL WELL-BEING, MORE PERSONALLY MEANINGFUL EXPERIENCES OF THEIR LIVES, RAPID, MARKED, AND ENDURING ANTI-ANXIETY AND DEPRESSION EFFECTS POST ADMINISTRATION, WITH A REMISSION RATE OF 60%.

EFFECTIVE IN TREATING TREATMENT-RESISTANT MDD, OCD, CANCER-RELATED ANXIETY AND DEPRESSION, TOBACCO AND ALCOHOL USE DISORDER, IT’S REGARDED AS SUPERIOR OVER CURRENT EARLY DEPRESSION INTERVENTIONS SUCH AS SSRIS AND CBT.

**Did you know...**

PSYCHEDELIC-ASSISTED PSYCHOTHERAPY INVOLVES PREPARATORY SESSIONS, MEDICATION SESSIONS WITH PSYCHEDELICS, AND INTEGRATION SESSIONS. DURING THE MEDICATION SESSION, THERAPISTS CREATE A SAFE ENVIRONMENT AS PATIENTS EXPLORE THEIR INNER EXPERIENCES FOR 6-8 HOURS. IN INTEGRATION SESSIONS, THERAPISTS HELP PATIENTS INTERPRET AND APPLY INSIGHTS GAINED FROM THE PSYCHEDELIC EXPERIENCE. THE EFFECTIVENESS OF DIFFERENT PSYCHEDELIC APPROACHES WITH PSYCHEDELICS IS STILL UNCERTAIN, AND IT’S WORTH NOTING THAT ANTIDEPRESSANT EFFECTS MAY NOT OCCUR IMMEDIATELY AND COULD TAKE SEVERAL WEEKS TO MANIFEST.
A "dissociative anesthetic" is infamous for being illegally synthesized and, along with MDMA, infamously known as a "club drug".

**Mechanism of Action**

It's a NMDA antagonist, through activation of the mTORC1 pathway and (2R,6R)-HNK through non-NMDAR-mediated pathways. Its antidepressant efficacy is caused by the modulation glutaminergic transmission in the prefrontal-limbic circuit that leads to neuropsychological adaptations via the AMPA receptor.

**Behavioral Effects**

It's tied to improved mood and emotional detachment. At higher doses it can cause derealization, depersonalization, ego-disintegration, experience of unity, illusions in all sensory domains and perceptual alterations. It has an antidepressant action, with the potential of improving symptoms tied to major depressive disorders and bipolar disorders.

**Subanesthetic doses (35 - 105 mg)**

It shows antidepressant efficacy and decreases suicidal ideation (for up to 72h) in treatment-resistant MDD patients. It also typically induces the "mystical-type phenomena".

**At higher doses (400 - 500 mg)**

Has safe anesthetic effects and is widely used in both pediatric and general populations.

Efficacy in treating treatment-resistant MDD. However, ketamine infusion therapy requires numerous weekly visits to achieve antidepressant effect and often requires several monthly visits to sustain remission.

**Ketamine**

**LSD**

A classical psychedelic and synthetic ergoline, part of the tryptamine family.

**Mechanism of Action**

It modulates 5-HT2C and 5-HT2A (and has the greatest affinity for the 5HT2A among the classic psychedelics) receptors, monoamine transporters, and trace-amine associated receptors. Decreases connectivity between structures of the default mode network.

**Behavioral Effects**

It enhances the processing of somatosensory information and heightens the perception of significance. It shows promise in alleviating symptoms of affective and mood disorders, particularly anxiety.

**At low doses (<100 μg)**

Alteration of sensory and cognitive processes but the user generally is aware that the effects are tied to the drug. The user remains in contact with their surroundings.

**At high doses (> 200 - 250 μg)**

Users enter an alternate reality, disconnecting from their surroundings and experiencing profound altered states of consciousness. This allows for greater access to the unconscious and the release of emotional tension.

Efficacy in treating cluster headaches and anxiety in terminal illness.

**References**


