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Objectives

- I. Discuss mind/body dualism in modern Western society
- II. Review the history of psychedelics in pain management
- III. Explain the biopsychosocial & spiritual approach while using psychedelics to manage pain

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*"Cogito, ergo sum"*

Descartes

63.

3

Your Body Knows You're Burned Out  
Here's how to recognize the physical symptoms of work-related stress — and what to do about them.

How to Exercise With Chronic Pain

Can Moving the Body Heal the Mind?  
In her new book, Jennifer Heise blends personal experience and the latest science about how exercise can improve your mental well-being.

Working out may seem like the last thing someone in pain wants to do. But it can bring relief.

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### Unconscious determinants of free decisions in the human brain

Soon, Brass, Hahne, Haynes, 2008, *Nature Neuroscience*

Prediction of decision from micropatterns of brain activity

Onset of predictive information

\*Fall\* time of decision for left or right button

- 14 volunteers underwent fMRI imaging while asked to perform a decision-making task
- Task was to press one of two buttons when presented with an image
- Researchers were able to predict people's decisions 7 seconds before volunteers were consciously aware

Source: Soon et al, 2008, *Nature Neuroscience*

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### Maternal Satisfaction with Nitrous Oxide

- Retrospective review of data involving 6507 parturients over a 3 year period (2011-2014)
- 19% (1246 patients) opted for nitrous oxide for analgesia
- 60% (753 patients) delivered with nitrous oxide alone
- 40% (493 patients) converted to neuraxial management
- Mean patient satisfaction score 7.4 (not significantly different from neuraxial)

**CONCLUSION:** Patients who received nitrous oxide alone were as likely to express satisfaction with anesthesia care as those who received neuraxial analgesia, even though they were less likely to report excellent analgesia.

Source: Richardson, et al, 2017

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### TREATMENT MAP

IPI INTEGRATIVE PSYCHIATRY INSTITUTE

**LIFESTYLE**

- RELATIONSHIPS / Communication / Isolation / Attachment Style
- SLEEP / Infection / Circadian System / Apnea
- IMMUNO / Pathogens / Technology / Gut-Microbiome Ectopic
- NUTRITION / Diet / Fasting / Food Intolerance
- EXERCISE / Mobility / Strength / Balance

**BODY**

- GENE EXPRESSION / Epigenetics / Microbiome / Heavy Metal
- METABOLIC REGULATION / Hormones / Insulin / Glucose
- ORGAN OPTIMIZATION / pH / Mitochondrial / Proinflammatory
- IMMUNE REGULATION / Infection / Autoimmunity / Inflammation
- DETOXIFICATION PATHS / Heavy Metal / Neurotoxic

**MIND**

- TRAUMA / Complex Trauma / Attachment
- BIOPHYSIC / Neurological / Psychological / Systemic

**SPIRITUALITY**

- UNMET / Disconnection / Missing Meaning

**SYMPTOMS**

Depression / Anxiety / Insomnia / Mania / Irritability  
 Psychosis / Compulsions / Hallucinations / Brain Fog / Fatigue  
 Headaches / Impulsivity / Self-Harm / Hostility

Source: IPI, 2012

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### Are Psychedelics Really Fringe?

JOHNS HOPKINS UNIVERSITY

UNIVERSITY OF BIRMINGHAM

WISCONSIN UNIVERSITY OF MADISON

Harbor-UCLA

Yale University School of Medicine

The University of New Mexico

NYU School of Medicine

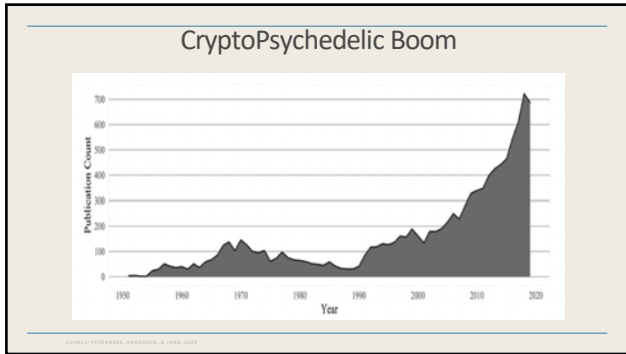
UCSF Medical Center

THE UNIVERSITY OF ARIZONA

Imperial College London

Source: IPI, 2012

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### History of Psychedelics in Pain

#### The Effect of LSD-25 on Phantom Limb

- 1962 - First publication in Japanese medical journal of its kind involving LSD and pain
- **Hypothesis:** LSD alters the patient's body image and reorients the psychological relationship to the physical self
- **Results:** LSD benefited 7 out of 8 patients with phantom limb sensation. Benefited 5 out of 6 patients with phantom limb pain.

SOURCE: KOSUMARU, 1997

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### LSD vs. Dilaudid/Demerol in Cancer Patients

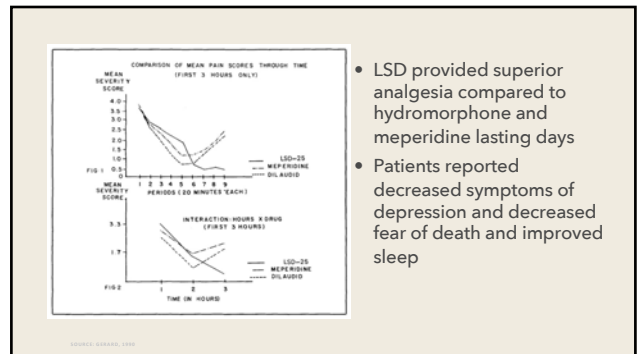
- Pain is both physiologic and psychologic
- Studied analgesic effect of LSD compared to hydromorphone and meperidine
- 50 advanced stage cancer patients were enrolled
- One group received hydromorphone and meperidine and the other received LSD

**STUDY OF**  
**Lysergic Acid Diethylamide**  
**as an Analgesic Agent**

MIC. C. KASE, M.D.,  
VINCENT J. COLUCCI, M.D.,  
Chicago, Illinois

SOURCE: BARAKAT, 1998

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### LSD as a Pre-Anesthetic

In another study of LSD, Kast is using the drug as a pre-anesthetic agent. In the nine cases studied to date, no adverse side effects have been observed. The most important finding, Kast said, is that when LSD was used as a pre-anesthetic, no analgesics were needed after surgery for up to 36 hours.

SOURCE: BEKARD, 1993

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### Pain and LSD-25: "A Theory Attenuation of Anticipation"

- "(LSD) seems to deprive the patient of his ability to concentrate on one specific sensory input, even if the input is of urgent survival value
- "...minor' sensations, namely those of less importance for survival, make a claim on the patient's attention sometimes in preference to those of major survival significance
- "(LSD) diminishes cortical control of thoughts, concepts, or ideas and reduces their significance in control of vegetative function and behavior in general. The meaning of pain...and its frightful resonance...is greatly alleviated.
- "...LSD obliterates the individual's ego boundaries (and) a geographic separation can more easily be made between the self and the ailing part.

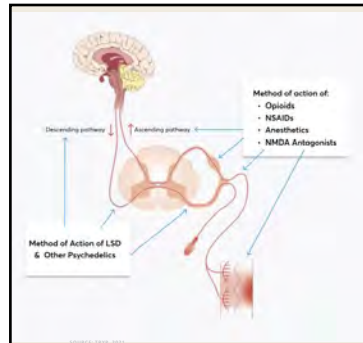
SOURCE: BEKARD, 1993

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### Upcoming Clinical Trials

INSTITUTION	PSYCHEDELIC COMPOUND	OUTCOMES
MindMed	LSD	Chronic Pain Acute Pain Cluster Headaches
Maastricht University	Undisclosed	Fibromyalgia
UC San Diego	Psilocybin	Phantom Limb Pain
Stanford	Psilocybin	Chronic Low Back Pain
University of Alabama	Psilocybin	Chronic Pain
Tryp Therapeutics	Psilocybin	Fibromyalgia
MAPS	MDMA	Chronic Pain

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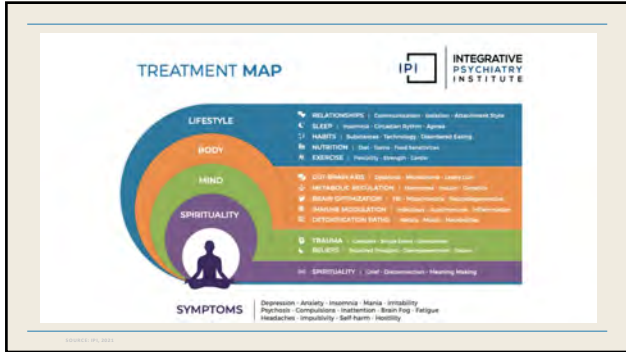


### The role of 5HT2A in pain

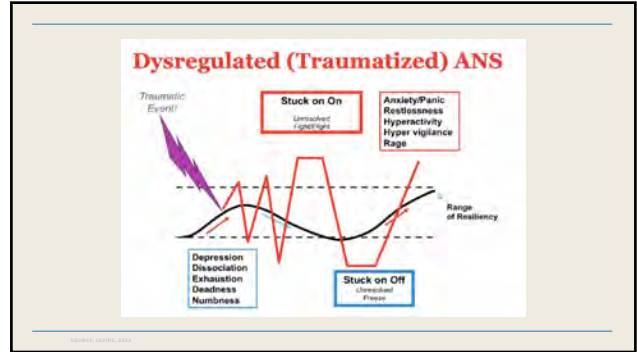
- Mechanism of action: 5-HT2A agonists
- Hypothesis: Serotonin involved in descending modulation of pain
- Little data to support this hypothesis

SOURCE: BEKARD, 1993

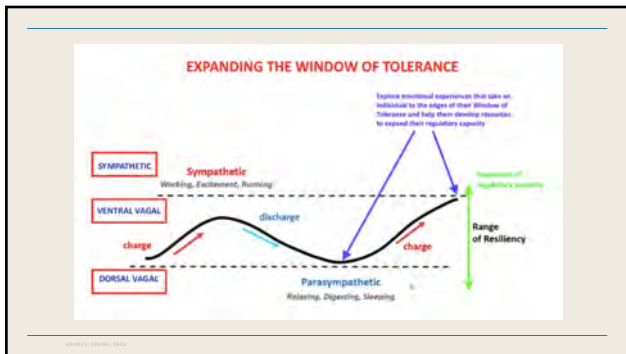
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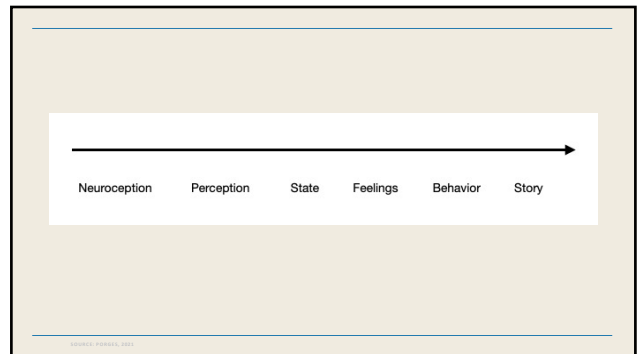
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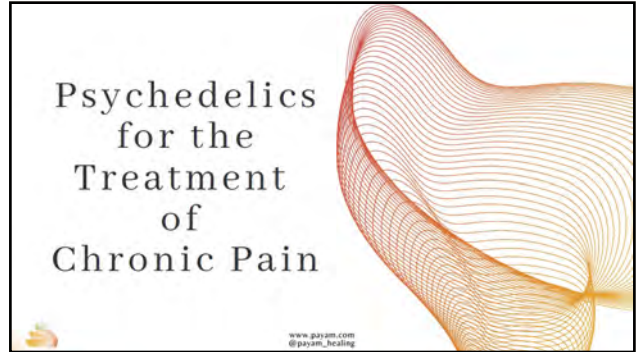
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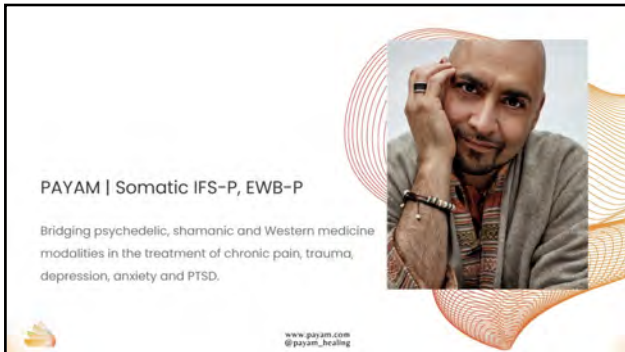
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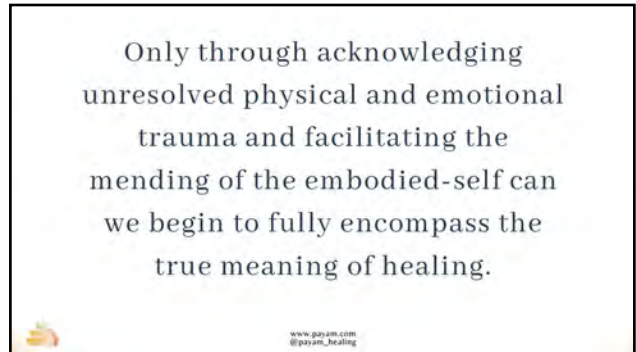
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ACKNOWLEDGMENTS OF WISDOM KEEPERS AND TEACHERS 

- Ram Dass
- John Fred Tunnicliffe, Dr. John Douglas
- Dr. Gabor Maté | Compassionate Inquiry (CI)
- Dr. Richard Schwartz | Internal Family Systems Therapy (IFS)
- Dr. Peter Levine | Somatic Experiencing (SE)
- Dr. Frank Anderson
- Susan McConnell, CIFST

Spirit Brothers + Supporters

- Dr. Brian Jacob | Mt. Sinai NYC
- Dr. David Chen | UCLA
- Huy Vo, CRNA | UCLA

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The way we apply science is a paradigm we call Reductionism.

In this complex, biological world, we try to pull out a single factor or variable and prove or disprove its cause and effect with an outcome, if three assumptions were met:

- 01** Nothing Can Change
- 02** We have to know and control all variables
- 03** The results they produce have to be generalizable to all patients and all environments

...and clearly this is not true, yet we continue with the same paradigm.

- Dr. Bruce Ramshaw

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WHY DO PATIENTS SUFFER DESPITE OUR BEST EFFORTS AND ATTENTION?

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There are known and unknown factors in all patients that can result in good or bad outcomes, such as chronic pain post-op. There are biopsychosocial, spiritual and energetic (nervous system dysfunction) factors that affects the patient experience. These factors need to be considered to produce the best outcome in the recovery of all patients.

If you consider patients with high anxiety prior to operation, you know that their level of pain is higher post-op and rehabilitation takes much longer due to their relationship with their pain. Through the lens of IFS and SE, we can determine that these patients are in a fight, flight or freeze response. As a result, prior to surgery, we can help patients soften how they enter this space. Ultimately, the goal is to help patients heal more quickly.

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Pre-op anxiety predates anxiety provoking events very likely catalyzed by an unprocessed traumatic event either in childhood or later in adulthood. Considering the patients' trauma history is a beautiful gauge with which a facilitator can measure their relationship with an impending traumatic event such as surgery.

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### Adverse Childhood Experiences Score CDC + Kaiser

<https://www.cdc.gov/vitalsigns/aces/index.html>

The ACE study shows the link between childhood trauma and the chronic diseases people develop as adults, as well as social and emotional problems. This includes heart disease, lung cancer, diabetes and many autoimmune diseases, as well as depression, violence, being a victim of violence, and suicide.

Over the course of a decade, the results demonstrated a strong relationship between the level of traumatic stress in childhood and poor physical, mental and behavioral outcomes later in life. The ACE Study is an ongoing collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente.

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### Cycles of Trauma and Chronic Pain

Challenging Childhood Experience

Early childhood trauma can teach the brain to go into protective mode "making danger" alarm/amygdala more sensitive. These memories are often unprocessed and implicit in their form and do not live in the conscious mind where in adulthood they can be worked with somatically and mentally

↓

Health Score/Sports Injury/Surgery

Medical treatments and misdiagnosis can lead to pain catastrophizing, increased amygdala activity, and an increased subjective experience of pain.

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### Cycles of Trauma and Chronic Pain

Coping Strategies and Maladaptive Compensations

i.e., perfectionism, people pleasing and other trauma adaptations and compensations can lead to ongoing state of hyper vigilance in the nervous system

↓

Adulthood Stress

Combined with an overprotective nervous system, will often start to produce physical symptoms like headaches, stomach aches and other manifestation of pain and discomfort

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**Cycles of Trauma and Chronic Pain**

Major Life Events  
i.e., recent trauma, a loss can trigger previous unresolved trauma and may coincide with the development of new or worsened symptoms.

↓

Cycle of Chronic Pain  
can begin anytime an overactive nervous system hits its critical mass/tipping point. This may begin with new physical injury or physical symptom

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**Somatic Release and Emotional Wisdom Arising from Within**

<https://www.instagram.com/p/czkb9-1o1st/>



Release of trauma in psoas and the arising of information that has been stored in the body revealing itself through the mind by way of the body.

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**Practices that can be implemented pre, intra and post-op to maintain healthy neural connections and rehabilitate neural rewiring to address chronic pain.**

- Cognitive Behavioral Therapy (CBT)
- Mindfulness Based Stress Reduction Meditation (MBSR)
- Psychedelic Assisted Psychotherapy

**My Prayer for Therapeutic Models Through Skilled Practitioners**

- Psychedelic Assisted Somatic Experience Therapy
- Psychedelic Assisted Internal Family Systems Therapy
- Psychedelic Somatic IFS Shamanic Healing

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**WHAT IS A PSYCHEDELIC ?**

It is derived from the Greek words ψυχή (psyché, "soul, mind") and δηλῆν (délain, "to manifest"), thus meaning "mind manifesting," the implication being that psychedelics can develop unused potentials of the human body-mind.

The psychedelic experience, as much as it is studied and quantified by Western scientific approach, cannot be understood through the reductionist model that solely focuses on the mental events occasioned by synthetic derivatives of sacred sentient medicines.

The sacred psychedelic experience awakens the Unitary Field of Consciousness, whereby body and mind become the gateway of the biographical and biological depository of our history. Through awakening to the deeply-held wisdom within ourselves, we can meet unhealed physical and emotional traumas which we can heal through Eastern and Western modalities.

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- Psychedelic medicines (i.e., LSD, Psilocybin, MDMA) are primarily serotonergic and exert their altering effect on the serotonin 2A receptors (5-HT<sub>2A</sub>).
- DMN and Areas of DMN
- They have an excellent safety profile with a low potential for abuse or addiction, as opposed to opioids such as OxyContin and Vicodin, because they don't work on the mesolimbic dopamine reward pathway. In fact, these psychedelics are effectively *anti*-addictive, in that they reveal and help heal the underlying trauma and pain that the addicted individual is attempting to soothe with addictive substances and behaviors.
- The primary effect of psychedelics are the elevation/"alteration" in perception in the Body-Mind Consciousness.
- A Unitary State/Field of Consciousness is occasioned when DMN's activity is decreased and turned off, yet other areas of the brain such as the limbic system remain active; this is where we can interface with difficult, terrifying repressed memories that oftentimes have an energetic signature in the body and have to be processed mentally and expressed physically.

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## HOW DO PSYCHEDELICS HELP?

A key brain area for psychedelic drugs' effects appears to be the temporal lobe, the location of much emotional and memory functioning.

An effect shared by different psychedelic substances is that they increase the amount of disorganised activity across the brain – a state that neuroscientists describe as being "higher in entropy".

One consequence of this is a reduction in the activation of a group of brain structures known collectively as the "default mode network", which is associated with self-conscious and self-focused thought.

One theory, then, is that psychedelics provoke a spiritual state of oneness with the world by increasing the brain's entropy and suppressing the ego, thus sustaining activity of the default mode network.

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## PSYCHEDELICS BEING USED IN TREATMENT OF CHRONIC PAIN AND TRAUMA

MDMA - (3,4-Methylene Dioxy Methamphetamine)

- Softens Structural Parts (IFS)
- Softens Body Parts (IFS)
- Softens Mental Parts (IFS)
- Increased Oxytocin "love hormone," is known to increase "affiliative behavior and co-regulation/sense of safety during ceremony/treatment"
- Prolactin, can cause a "post-orgasmic state," making people feel more relaxed and open to process difficult material
- This Medicine has also been shown to decrease activity in the amygdala, an area of the brain associated with fear and increase activity in the prefrontal cortex.

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## PSYCHEDELICS FOR TREATMENT OF CHRONIC PAIN AND TRAUMA CONT

Psilocybin - Mind Opening, Occasions Spiritual Experience of Oneness

- Softens Structural Parts (IFS)
- Softens or Activates Body Parts (IFS) - helps seeker recognize old repressed physical trauma and can be therapeutic in ceremony/treatment
- Softens or Activates Mental Parts (IFS) - with assistance can be therapeutic in ceremony/treatment
- Slows down DMN (Medial PFC and PCC) and reduces connection patterns allowing for more neuroplasticity
- In chronic pain a seeker/patient has heightened activation of DMN and increased rumination, cognitive inflexibility and centralization of pain
- Psilocybin reduces blood flow to the PFC and PCC, the main nodes of this network
- Disruption of this network can help facilitator/therapist rewrite a story of body-mind

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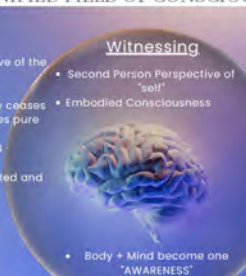
### UNIFIED FIELD OF CONSCIOUSNESS

**Witness**

- Third Person Perspective of the "I"
- The "Conscious Self"
- A state where the body ceases to exist and one becomes pure awareness.
- Downward Turned DMN
- Turned OFF DMN
- "Small" self is deactivated and "SELF" is present (FS)

**Witnessing**

- Second Person Perspective of "self"
- Embodied Consciousness



• Body + Mind become one "AWARENESS"

**Witnessior**

- First Person "I"
- I Think Therefore "I AM"

**Activity**

- Limbic System
- Amygdala
- Visual Cortex
- Somatic Energy
- Repressed Memory
- Serotonin
- Dopamine
- Norepinephrine
- Oxytocin
- Openness
- Co-regulation

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### SOMATIC EXPRESSION OF A PSYCHEDELIC JOURNEY

Unprocessed emotional events such as trauma can be stored as tension and in various parts of the body and suppressed as a coping mechanism.


The stored energy (manifested in the mind and body) will be stored in the myofascial tissues, the muscles, organs and result in inflammation and pain. The body exists in a constant state of trauma.

Psychedelics can restore the energetic body by safely connecting the patient (as a witness) to their trauma and, with the assistance of a skilled facilitator, process and release the trauma which results in overall healing.



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### Case Study

Spinal Trauma and Fusion, Ulcerative Colitis

Mike L. - 48 Years Old

Chronic Pain  
Anxiety  
Suicidality

Treatment Protocol:

- Hap6
- Sarranga
- 5 MEO-DMT 25mgs x 2
- MDMA 150mgs
- 5grms Psilocybin

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### MIKE L.

I started seeing a pain management doctor soon after spinal injury and fusion and eventually got up to 8 Percocets per day and a 150mcg Fentanyl patch. Anything I did would cause intensify my pain, depression and suicidal thoughts.

When I learned I could heal my pain, it was the lesson of a lifetime. I was IN the medicine for 4 straight hours that were filled with pain, suffering and a tidal wave of love all at the same time. And all while staying in the same position on the mat I was on and not moving for the 4 hours.

When I came out of the journey my pain was gone and I learned that I didn't have to live in constant pain and suffering. That my pain didn't define me. And that if I could learn to befriend and send love to my pain, that I could live relatively pain free compared to the pain I was experiencing every day for the last 16 years.

I came to plant medicines pretty much just to get out of the depression I was in and came out with a deep understanding of how mind manifesting medicines can literally link and strengthen the mind/body relationship to the point where just about anything is possible. I never expected in a million years to be pain free and on so much less medication.

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## POTENTIAL CONTRAINDICATIONS

Schizophrenia	Dissociative Identity Disorder (DID)	Borderline Personality Disorder	Patients dependent on MAOIs, Benzos and SSRIs
Hypertension			
Seizure Disorder	Bi-Polar Disorder		

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## IN CONCLUSION

- Consider the whole person - their system, and where they are in their healing process
- Sometimes the pain is an ally until it is relieved of its duty through therapy
- Befriend the body and the mind and it's history to understand the nature of pain
- Consider alternative healing paths that are just as effective, though they may be slow to be recognized as valid and effective interventions

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## Resources + Citations

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