



PLUM SPRING CLINIC

Holistic Wellness Center

Ketamine-Assisted Therapy (KAT)  
Tool for Healing Trauma

# M A N U A L

*The places where we are seen and heard are holy places.*

*~Rachel Naomi Remen*



## Ketamine-Assisted Therapy Manual

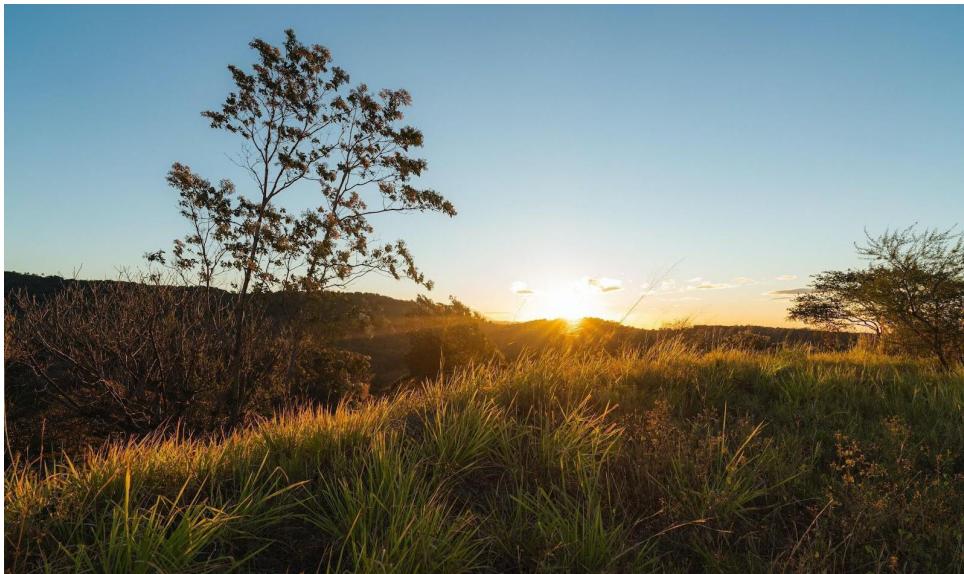
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Disclaimer: We do not encourage or condone the use of illegal drugs or unauthorized use of prescription drugs.

## Functional Medicine

At Plum Spring Clinic we utilize the Functional Medicine lens of understanding the body-mind as an intricate system of systems. When all are in good working order, we experience health and well-being. However, when healthy systems begin to break down, the body-mind will develop symptoms that express those breakdowns. Unaddressed over time, these become chronic illnesses. The functional medicine approach to treating chronic illness is twofold: discern the roots of that illness in breakdown of function, and nurture the system back to its innate healthy function to allow well-being to thrive.



## Trauma at the Root

Over many years of working with patients with complex illness we have come to understand that symptoms associated with physiological breakdowns ~~ digestive problems, compromised immunity, inflammation, headaches, sleep and mood problems ~~ frequently originate and are perpetuated in the nervous system's stress response. As we've worked with chronic stress activation in our patients, we increasingly understand its source in the individual's experience with trauma. The word 'trauma' may bring to mind the kind of experiences that soldiers experience in wartime, but when we use it in this context it relates to any kind of experience that is deeply unsettling or overwhelming to the nervous system, overriding its innate capacity to re-regulate.

A well-established area of research has explored the relationship between “Adverse Childhood Experiences (“ACEs”) and adult illness. In very early childhood, under the influence of the experience our environment provides us, our nervous systems develop life-long patterns of response to challenge. Adverse experiences that profoundly frighten or overwhelm -- such as physical and emotional abuse, neglect, household violence, caregiver mental illness -- influence the development of young nervous systems toward a ‘set’ of survival patterns ranging from hyper vigilance to withdrawal. These patterns set us up for chronic stress reactivity throughout life, and become the roots of adult chronic illness.

Sadly, since these same ‘ACES’ most often happen in relationship to our main caregivers, the survival patterns developed can result in lifelong problems with relationships. The loneliness and conflict experienced in relationships troubled by deep survival patterns amplify our vulnerability to chronic stress reactivity. And cut us off from the connections we most need to be healthy and happy.

The chronic activation of our stress reaction naturally disrupts healthy physiology over time because the constantly stressed body cannot return to the calm state necessary for healing, growth, regeneration. With healthy function impeded by chronic stress reactivity, chronic illness ensues. Depending on the unique vulnerabilities of an individual’s ‘system of systems’, these breakdowns can take the form of auto-immune illness, cancer, heart disease and degenerative illnesses.<sup>6</sup> ***In our view, the best technical medical care in the world is insufficient to treat chronic physical illness ~ and the problems of mood that most often accompany these -- until the wounds underlying the chronic activation are addressed.***

As biological beings, it is our innate neuroplasticity that teaches us to develop reactivity in response to the felt sense of threat - whether real or imagined. Happily that same neuroplasticity will respond to experiences of felt safety and connection by making new patterns of calm and contentment that support healing and growth.

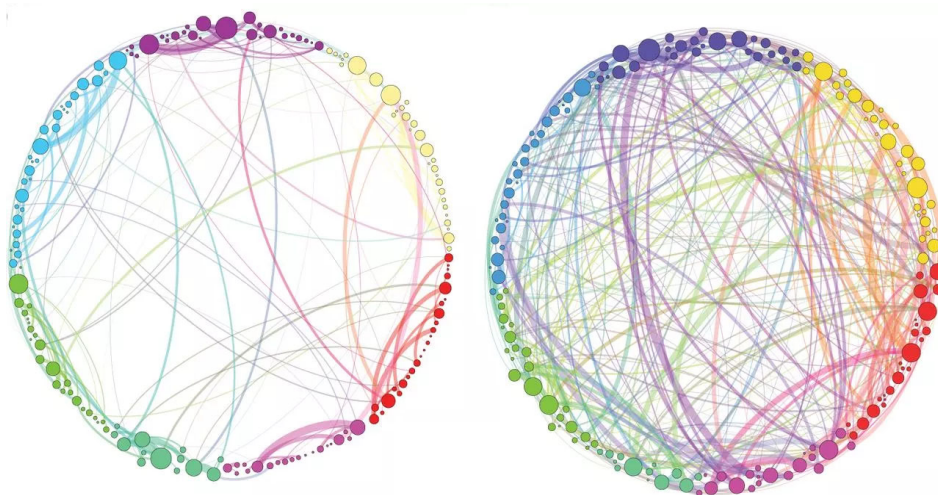
***Our job at Plum Spring Clinic is to connect with you -- as physician, resilience or recovery coach, ‘food is medicine’ nutritionist -- to provide the integrated ‘field’ of safe and expert connection that restores your system to its innate healing capacity.***

## Ketamine: The Healing Journey Beyond Ordinary Consciousness

At Plum Spring Clinic, ketamine therapy is utilized in this context of this holistic, skilled, relational support for healing. Our aim for ketamine as a tool is to facilitate and accelerate the discovery of roots of unprocessed trauma, to release these voices of pain and uncover the calm and whole person underneath. The ketamine journey takes the patient out of ordinary everyday consciousness, in which the default and protective survival patterns of chronic dysregulation hold sway, into a more open and clear dimension of mind. Here it is possible to have a taste of freedom from those hindrances to well-being. Safe, skilled, trustworthy connection supports this discovery by lowering fearfulness that can naturally arise. Healthy connections also facilitate the crucial ongoing work of integrating discoveries into a new and authentic appreciation and acceptance of self.

### Background

Psychedelic substances, or ‘plant medicines’, have been used in healing ceremonies for millennia. Research into the clinical usefulness of both plant medicines and synthesized medicines capable of producing “non-ordinary states of consciousness” (NOSC) began and flourished in the 1950s and 60s, until the War on Drugs made them inaccessible. NOSC are states of awareness in which communication between different parts of our mind and body is made more accessible as the brain’s governor, the Default Mode Network, is quieted.



*Illustration of how the use of medicines inducing NOSCs allow for connections in the brain that are not normally present and may increase our natural intelligence and capacity for healing. <sup>1</sup>*

Hundreds of peer-reviewed studies <sup>4,5</sup> have demonstrated the usefulness and safety of medicines capable of producing NOSCs. Still, much has yet to be determined about how best to use them, for which conditions they are most effective, and how they work. It is this latter question that is perhaps the most interesting one. What is therapeutic about these NOSCs?

In addition to their power to help us befriend our own dark places and awaken us to our fundamental goodness and belonging, NOSCs can give us a visceral sense of our interconnectedness with all of creation. This continuum of experience often diminishes the survival or defensive setting of the nervous system with a feeling of safety. This in turn helps restore a resting and calm home base for the body and mind in the nervous system. Such access to the 'frequency of safety' can help loosen deeply ingrained patterns of thought, feelings and behavior that have caused suffering. By healing these patterns, we naturally become less defensive, self-protected and isolated. This may allow us to connect more easily and comfortably with ourselves and others and thus find ease, happiness and improved physical health and relationships.

### **Ketamine-Assisted Therapy (KAT) at Plum Spring Clinic**

At Plum Spring Clinic, ketamine is utilized as a component of our holistic program of addressing trauma-related roots of chronic unwellness. We have found that the ketamine experience, administered in the context of skillful and trustworthy relationships that are the Plum Spring Clinic signature, can powerfully advance the therapeutic process. The ketamine experience is not generally offered as a stand-alone treatment, as benefits of ketamine sessions are cumulative over the course of a number of treatment sessions alternating, with integration sessions to process insights of the experience into new ways of being.

Generally, KAT at Plum Spring Clinic entails the following components:

- Initial medical intake with Dr. Sharp
- 2-4 preparatory sessions with one of our coaches
- 4-6 ketamine sessions
- 4-6 integration sessions (typically one following each ketamine session)



Our team will be your attendants, helping you gain the most benefit from your experience. We will guide you in your preparation, see to your safety and comfort as we accompany you on your journeys, and help you to integrate the experience afterward.



### **Our KAT Coach-Attendants**

The Plum Spring Clinic KAT attendants and integration coaches are not psychotherapists. Rather, they are trained as coaches in a mode of compassionate presence to the individual patient and their unique healing process. We know it is this unwavering and sensitive presence that allows for the nervous system of the patient to feel safe and accompanied into the journey of discovery that is healing. In alignment with this foundational Plum Spring Clinic belief, our coach-attendants' guiding principle is respect for the innate healing intelligence at the core of each patient, which we recognize as the true healer.

The skillful focus of our KAT team recognizes the patient in the driver seat of their healing journey. You are in charge, and the process goes at your pace. We work with what you want to work with, utilizing the following elements:

- Deep listening
- Asking questions that encourage you to make kindly contact with wounded or alienated parts within;
- Opening your story or stories as much as your inner protective system allows;
- Acknowledging and honoring the woundings;
- Welcoming and celebrating the discovery of authentic parts and true nature of the self.

We recognize that there may be occasions when a referral to a psychotherapist or psychiatrist may be indicated.

### **Typical Program Schedule**

#### **Initial Medical Appointment: Is this a wise course for you?**

Your first session will be with Dr. Sharp, who will meet with you to explore your interest and understanding of KAT and what you hope to gain from participating in our KAT program. The doctor will review your medical history and mental health to ensure this form of therapy is safe for you. He will discuss the risks and benefits of KAT, and options for dosing and route of administration (sublingual, intranasal, oral or intramuscular). The doctor will explain that your initial experience will be attended by two providers.

Dr. Sharp will prescribe a series of sessions with one of our coaches to prepare the foundation for positive and healing ketamine experience. If you are currently in therapy with a practitioner whom you would like to have participate with you in your ketamine program, we are happy to discuss this possibility with them (with your consent).

Finally, the initial appointment will include review of our Informed Consent Document and addressing any remaining questions you have about the program. If you agree with the contents of the Informed Consent, you will both sign the document and you will be given a copy.

#### **Preparatory Coaching Sessions: Establishing trust and rapport with your attendant**

The coach with whom you've been matched will help you prepare for your ketamine sessions and attend you during your session(s). Your initial ketamine session(s) will have a physician attendant from our practice and this will be discussed with you.

The purpose of your preparatory sessions with your primary attendant is to establish the 'Envelope of Intention' for your work together. Your coach will help you understand and feel comfortable with the set, setting, process and possibilities for your treatment sessions. The "set" here refers to all that you bring to the session - your physical and mental state, attitudes, beliefs, hopes and fears. "Setting" refers to the physical environment where you are treated, including the overall ambience and who is present with you.



Ceremony can be an important aspect of setting in this work. Our aim for the element of ceremony is to infuse the proceedings with a reverence for the sacredness of life and of this healing work. Together you and your attendant will explore a frame of reference for your ketamine experience that resonates with your spiritual orientation, whatever that may be.

The aim for these sessions is to create a safe, positive, and trusting therapeutic alliance between you and your attendant prior to your first ketamine session. These initial sessions establish the framework for synergy of ketamine experience and integration coaching that take place between ketamine sessions. While the ketamine experience can open the mind to new inner circuitry of safety and authenticity, the integration sessions help to put the newly opened circuitry to use in lasting changes on behalf of your healing and growth.

Items to be covered with your coach prior to your first ketamine session include:

- Introductions between us.
- Treatment goals and your hopes for outcomes of ketamine sessions.
- Dr. Sharp's presence and options for attendance.
- Use of music.
- Use of a facemask and eye shades.
- The use of touch.
  - Therapeutic role of touch including comfort and "resistance".
  - Agreement to non-sexual touch.
- The possibility of unpleasant or difficult experiences during and after the journey.
- Fear and anger and means of coping with each.
- The possibility that you may find your journey confusing or lacking coherence, but that doesn't indicate a lack of meaning. Time and integration may/will allow for significant learnings to emerge.
- Bringing objects with you that hold special meaning for you.
- Selection of prayers, poems or readings that help create a healing space.
- Sensitivity to possible "push-back" from familiars upon return to normal life.
- Levels of experience that the NOSC can open access to - suppressed body sensations, images, memories, behavior or body movements, emotions, and meaning.
- Pre-treatment essentials (see next section).
- Review of Journey Guidelines



### **Pre- KAT Session Essentials**

It is important to follow pre- and post- treatment essentials to ensure safety and gain the maximum benefit from your ketamine treatments.

- No alcohol 48-hours before treatment.
- Medication taken 72 hours before treatment MUST be cleared with the team.
- We recommend you bring attention to your meals several days prior to your sessions, in a way that feels healthful and nutritious to your unique body.
- No coffee, tea, or caffeinated beverages 5 hours before treatment.
- No food 4 hours before treatment.
- No beverages 1 hour before treatment.

### **Mental preparation for the session:**

- Give extra care to your mental and physical state a week prior to the session:
  - Avoid conflict with others.
  - Try to get extra rest.
  - Resist overscheduling yourself - take time to meditate, journal, and relax.
  - Contemplate your intention for the session, while remaining open to what the medicine offers.

### **What to Bring:**

- Eye shades and face mask
- Comforting items, such as favorite pillow, blanket, or stuffed animal
- Personal Item(s) that convey to you a sense of sacredness or deep connection
- Journal
- A snack for after the session to help with grounding

- This Manual



### **Post-KAT Session Essentials**

- No alcohol 48-hours after treatment.
- Any medication taken 72- hours after treatment MUST be discussed and cleared with the treatment team.
- You will need to arrange for a ride home after your treatment, as you cannot drive or operate heavy machinery within 8 hours of treatment.
- To maximize the benefit of the treatment it is strongly recommended that you take the remainder of the day of treatment off and engage in nurturing activities such as taking a walk, taking a bath, relaxing, journaling, drawing, or listening to music. If possible, rest the following day, too.
- Have a telephone or in-person follow-up with your attendant.

### **Treatment Sessions**

We approach the ketamine session in the spirit of reverence for your innate healing wisdom, and hope for the ketamine experience to connect you with that wisdom. We aim for the trust and respect between us, your attendants, and you to facilitate the connection to this wisdom. We spend roughly 30 minutes together before you take the ketamine affirming this connection, discussing some practical aspects of the process, and orienting to the space. During this time, we will invite you to reiterate your hopes and aspirations with us, as well as any remaining concerns or questions you have. This will also be the time for you to arrange any objects of personal meaning you have brought with you to support your journey. Our aim is to put you at ease for your journey.

Our usual process is to open your session with an invocation, which we think of as an invitation we make together to be attuned to a higher consciousness, guided by the medicine and protected in the journey. We have compiled some sample recitations in Appendix B at the end of this manual. You are welcome to choose from this sampling, or bring your own.

### **Journey Guidelines**

- Every journey has a beginning, a middle, and an end.
- You will come back to ordinary consciousness at the end of the medicine journey.
- You have many “voices” or facets of your personality inside you. You are encouraged to regard this as an opportunity to get to know them without criticism or shame.
- Many of our internal voices are of fear, anger, shame, or grief. The medicine may help you listen to and befriend them in ways that are very difficult without the use of the medicine.
- The medicine may make you more aware of your body. You are encouraged to pay attention to the embodied experience and what your body may want to tell you that may have been difficult for you to hear in your ordinary conscious awareness.
- Trust the process; trust the medicine; trust your inner organic healing intelligence; trust the therapy relationship.
- Approach the journey with “beginners’ mind” and curiosity.
- Relax your critical mind so that you are not analyzing what you are experiencing, nor wondering why something is, or is not, coming up in the session.
- Trust that whatever comes up in a session needs to come up, even if you do not fully understand it.
- Trust that your inner healing intelligence would not bring up more than you can effectively handle or eventually integrate.
- When something beautiful or magical emerges, move towards it, connect with it, allow yourself to melt into it; when something is challenging, scary, confusing or disturbing, in a similar way, move towards it with curiosity and inquiry. Your attendant is here to support you.
- When approaching challenging experiences (or appearances, forms, beings or phenomena), ask what they are there to teach you and/or show you, and if you can, thank them for whatever is shared.
- Keep moving, letting the music guide you and merge with you, exploring and entering different spaces or terrains. If you see doors, open them. If you see staircases, go up or down them. If you see planets, explore them. If you see bodies of water, go into them. If you see windows, jump through them.

- Imagine the music is holding your hand; lean into the music.
- Learn to use the breath to explore, inquire and go deeper into experiences. Deep, slow breathing can help you to move through powerful feelings.
- Ask for help whenever you need it in whatever form feels appropriate. Physical support, grounding, anchoring and encouragement are available.

### **Closing the Journey**

We believe it's important to close the journey in a way that allows you to feel complete, and to understand that the time for making sense of the journey is ahead. This pertains to the period of heightened neural plasticity following your session, and in the longer work of ongoing integration. You and your attendant will therefore close the journey with a prayer, poem or statement of gratitude for the wisdom gained from the journey, and a request to have the wisdom grow and mature within you and the attendant. A copy of such a statement is included in Appendix B. The two of you will discuss how to spend the evening after your ketamine sessions and the role of discussing and sharing your experience with significant others, the use of journaling, meditation and walks outside. You and your attendant will discuss when to make contact with each other the day following your ketamine session, and during the week following your session.

## **Integration Sessions**

Ketamine-Assisted Therapy (KAT) is a potentially powerful and transformative process. KAT does not occur in a vacuum and it is not meant to be a stand-alone healing intervention. Rather, it can be a valuable, innovative, adjunct treatment for traumatic stress, depression and other psychological and medical difficulties. It can serve as a unique vehicle for healing and personal growth. We urge you to continue to work with your attendant over time to mature and deepen the wisdom that has been revealed to you. Some individuals may feel that very little has happened during their ketamine session. The majority of such individuals indicate they change their thoughts about the “productivity” of the ketamine experience over time but this is not true of everyone. We believe that follow up sessions with your sitter optimize the changes that are possible with the use of ketamine but do not assure it.

Specific practices during and after the medicine experiences – as well as after the series of sessions has ended – will allow individuals to maximize and extend the benefit of KAT

treatment. In this way, the entire KAT experience can be seen as a valuable tool for reconsidering “who you are” in an ongoing way, and not just a treatment that one has undergone.

***Healing is not an event. Healing is a journey.***

The power of the KAT experience is not limited to the small amount of time in which a person is under the influence of ketamine. Like many of our colleagues in this field, we at Plum Spring Clinic believe that KAT’s healing process will naturally unfold over the subsequent days, weeks, and months after completion of the treatment, or after the treatment has entered a maintenance phase. Sometimes, it is only through later self-reflection, spontaneously emerging insight and/or meaningful dreams that important perspectives resulting from this work may emerge and can be integrated.

In the context of KAT, the term ‘integration’ refers, first, to the recalling and weaving together of insights, images, thoughts or feelings received within one’s NOSC. The second stage of integration involves reflecting on this deeper understanding of formative pieces of our past and their influence on our way of living and relating to others. The third stage of integration means observing and mindfully finding alternative behaviors to allow more flow in your relationships with yourself and others. Integration is an ongoing process.

Plunging immediately back into one’s daily routine following a KAT session without periods of self-reflection may result in missing out on some valuable perspectives, insights, and lessons. Ketamine appears to increase the brain’s capacity for forming new perspectives and understandings of the nature of “self”. Research has documented the increase of neuroplasticity ~ the recreation and strengthening of connections between neurons in the brain, and the way the brain rewires itself around new experience and insights ~ in the 48 hours and beyond, following a ketamine session and beyond.

After a series of integration sessions with your attendant (or other), one’s ongoing engagement with self-reflective activities (e.g., meditation, journaling, nature walks, etc.) will support and further the benefits of the treatment. Integration also includes self-care activities that support and synergize with KAT. The following list of recommendations can assist with the integration process (some may need to be validated and coordinated with a primary medical provider or other mental health professional):

- Nurturing supportive relationships with friends



- Individual and/or group therapy, support groups, and integration groups
- Continuing prescription medications
- Healthy balanced diet (including hydration)
- Nutritional supplements
- Movement (walking, yoga, tai chi, martial arts, dance, etc.)
- Meditation
- Acupuncture
- Bodywork or massage
- Saunas, steam, hot springs
- Healthy sleep hygiene
- Meaningful work
- Recreational and social time
- Laughter and comedy
- Time in nature and/or with animals
- Journaling
- Decluttering, rearranging furniture, housecleaning
- Artistic expression and creative experimentation
- "Journey buddy" (a friend or partner with whom journeys are documented, tracked, and shared)

In our perspective, the KAT process works best when supported by ongoing intentional actions and commitments. A multi-pronged integration plan is the most effective approach to sustainable, satisfying change. Self-care can look different for every individual, and we hope the partial list above can serve as a departure point for developing one's own personalized integration plan. Because KAT can provide a transient or lasting energy boost, it provides an optimal opportunity to try new behaviors, or explore new activities.

This plan can be developed into a coherent, holistic treatment plan in consultation with members of the Plum Spring Clinic staff.

Sometimes old passions and interests – currently short-circuited by psychological and emotional challenges such as depression, fearfulness, lack of confidence, low energy or general disinterest in life and other people – can re-emerge. The integration phase can also be a good time to revisit and make changes in (or eliminate) undesirable habits.

Because KAT experiences plant seeds, activate latent potentials, and inspire previously unidentified options and opportunities, one cautionary note needs to be considered. It is generally suggested that someone undertaking KAT should not make any sudden, unplanned, major life decisions, or consequential life changes (e.g., starting or ending a significant relationship, signing a binding contract, quitting a job, making a large purchase, leaving the country, relocating, conceiving a child, etc.). It is advised that these significant life choices be put “on hold” until a few weeks following completion of the majority of KAT sessions. We recommend life-changing decisions be vetted with trusted advisors, professionals, close friends and supportive family members who may help evaluate the risks and benefits of these big issues. Please feel free to contact us at Plum Spring Clinic at any time if you need any additional support or referrals for healing, processing, or integration.

### **Our Therapists and Coaches**

#### **Michael Sharp, MD**

I am a Harvard trained physician who served on the faculty of the UNC-Chapel Hill School of Medicine for over 20 years, before a growing dissatisfaction with the practice of mainstream medicine and my brush with serious illness led me to look outside the box. Over the last 20 years I have studied and incorporated Shamanic Traditions, Traditional Chinese Medicine, and Functional Medicine into my practice, seeking to understand and learn how to repair the roots of illness.

My three years of training in Shamanism have been especially useful in understanding and exploring non-ordinary states of consciousness. Over the last 10 years, as I came to appreciate the effects of Adverse Childhood Events (the ACE studies) on individuals’ health, I have incorporated trauma healing techniques into my practice. They have helped me listen to and understand the language of the body, which so often expresses itself in symptoms that too frequently are misinterpreted and inappropriately treated by conventional medicine. I have found the techniques of Somatic Experiencing to be powerful tools in repairing many forms of chronic illness. I believe that this approach to healing deep wounds is a compellingly synergistic technique in supporting clients in preparation for experiences with psychedelic medicine, during their journey, and in the following integration sessions. I have trained in the use of ketamine with the Polaris Institute and The Psychedelic Research and Training Institute.



### **Kathleen Williams, Resilience Coach**

As we have come to understand the role of chronic stress reactivity at the root of our patients' illness symptoms, I have increasingly shifted the general health coaching process toward stress resilience. My work with clients is now guided by the Polyvagal Theory, which describes the core role of our autonomic nervous system state in our lived experience of stress, and provides the frame for learning skills of self-befriending that reconnect us to the state of safety and calm and make us more resilient to stress. In 2020 I trained at the Psychedelic Research and Training Institute (PRATI) as an attendant for ketamine-assisted therapy. I learned that the addition of the ketamine experience to the therapeutic process grounded in trust and connection allows for the by-passing of the rational, linear, 'ordinary' mind in which constricting fear patterns are embedded. As coach and attendant, my work is to affirm a safe 'envelope' for the journey into spacious non-ordinary consciousness, and for the integration of this experience into the subsequent work of undoing patterns of suffering. In the process, we re-establish home base for the nervous system in its calm and contented setting. This is the essential groundwork for healing heart, mind, and body.

### **Lorre Fleming, Trauma Recovery and Psychedelic Integration Coach**

I firmly believe that all beings possess an innate, organic, healing intelligence. I believe this because of my own journey of healing from complex trauma. Having experienced significant liberation from depression, anxiety, chronic illness, and debilitating pain, I am

inspired to accompany others on the path of healing and psychospiritual growth. I approach this work with an optimistic, non-pathologizing view and an understanding that all forms of chronic suffering are invitations to know ourselves – the ways our experiences have shaped us, the brilliance of our survival and coping mechanisms, how these may no longer be serving us, and ultimately, the wisdom and compassion that is our essence, our True Self.

I am a lifelong learner, keenly interested in neuroscience, Polyvagal Theory, Internal Family Systems, and various somatic healing disciplines. I am certified as both a transformational recovery and psychedelic integration coach and as a trauma-sensitive mindfulness practitioner. All of these inform the way that I approach my ongoing personal healing work and my work with clients, as does my deep appreciation and reverence for the healing power of a safe, nurturing connection.

*Out beyond ideas of wrongdoing and rightdoing,  
there is a field. I'll meet you there.*

*When the soul lies down in that grass,  
the world is too full to talk about.  
Ideas, language, even the phrase 'each other'  
doesn't make any sense.*

~~Rumi

## **Acknowledgements:**

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This document was compiled by Dr. Michael C. Sharp, Kathleen Williams, Lorre Fleming, Julia Corley, and Ali Cyr-Scully.

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## **Appendix A**

### **The Range of Ketamine-Induced Non-Ordinary States of Consciousness**

NOSCs are not necessarily abnormal phenomena as a whole. Experiences such as dreams, meditative states, or daydreaming can all be considered NOSCs. Ketamine is a less powerful psychedelic medication than others, but one that allows wider ranging explorations of aspects of our mind to which we otherwise would have restricted access.

Psychedelic substances induce at least four distinct NOSCs that depend on at least three major factors: the dose, the physical “setting” of the administration, and the mindset (often just referred to as “set”) of the person prior to the administration. These different states of consciousness may be partly distinguished by a) the degree of a dissociation of the mind from the body; and b) the degree of ego dissolution. In considering the effects of substances on a person, among other factors, it is necessary to consider the dose taken, how it is taken, the speed at which it is taken, the size and sex of the person, other substances taken (either before, at the same time or afterwards), the tolerance of the



individual, and the set and setting. The term set includes personality, past experiences, mental health, mood, motivations, intelligence, imagination, attitudes, what is going on in his or her life, and his or her expectations. The term setting refers to the conditions of use, including the physical, social, and emotional environment, including the other people present.

These are the four states of NOSCs achievable with psychedelics in general. Ketamine, in the doses we use in our clinic, are most likely to induce the first two.

**The first state is an empathogenic** (or “generating a state of empathy” or “heart-opening”) experience. The term “empathogenic” was proposed in the early 1980s by Ralph Metzner and is generated in response to an injection of a low sub-psychedelic dose of ketamine, the type of dose that may be used for relief of anxiety and/or analgesia (0.25 mg/kg–0.5 mg/kg IM, or 25 mg–50 mg IM). This state lasts from 45 minutes to two hours and may be characterized by the following features:

- The awareness of the body remains well-preserved.
- The body feels very comfortable and relaxed.
- The ego functioning is well-maintained; however, the ego defenses are significantly lessened.
- The person experiences feelings of empathy and compassion for themselves.
- The mind feels emotional warmth, well-being, and joy.
- Strong feelings of love and peace are prevailing.
- Feelings of euphoria, pleasure and joy are common.
- Feelings of ecstasy and enhanced sensuality are frequent.
- The mind is dreamy with frequent nonspecific colorful visual effects.
- The person may feel they have forgiveness and understanding of themselves and for those with whom they have important relationships.

It is also entirely possible for these doses to produce marked dysphoria and other unpleasant changes in mental and physical state. This is far more likely to happen if the set and setting are negative. This state can be combined with guided imagery or verbalized meditations and may sometimes be utilized to resolve long-standing intra-psychic conflicts, to treat the aftereffects of trauma in the victims of physical and sexual abuse or other assault, to control the symptoms of post-traumatic stress disorder (e.g., in soldiers), or to resolve interpersonal problems in spousal and family relationships. Unlike the other three NOSCs, which are more intense and overpowering, an empathogenic experience is more

likely to leave the patient with an ability to consciously recall this particular non-ordinary state of consciousness.

**The second NOSC is an “out-of-body experience” (OBE),** and may be induced in response to administration of a medium psychedelic dose of ketamine, which is in the range used for mild conscious dissociative sedation (0.75 mg/kg–1.5 mg/kg IM, or 75 mg–125 mg IM). This state lasts from 45 minutes to one hour and may be characterized by the following features:

- Feelings of complete separation from one’s body.
- The ego defenses are significantly diminished; however, the rudimentary ego structure is still preserved, and the experiencer is well aware of the self.
- Awareness of becoming a non-corporeal being.
- Apparent visits to mythological realms of consciousness.
- Apparent encounters with non-terrestrial beings (e.g., “space aliens”).
- Emotionally intense visions (e.g., ancestors (known or unknown),, “angels,” “spirits”).
- Encounters with enlightened beings (e.g., Krishna, Buddha, Christ).
- Vivid dreams and memories of past or future incarnations.
- Re-experiencing the birth process.

This type of experience can bring to the conscious awareness a plethora of unconscious material and may be utilized as an adjunct to psychotherapy. This state may sometimes be enhanced when combined with calm, evocative music (e.g., classical, Trance, or New Age) to assist with relaxation and immersion into the experience. Unlike an empathogenic experience, OBE leaves the person with only a partial ability to consciously recall all details of this particular NOSC after the experience, partly due to an avalanche of phantasmagoric visions and sensory overload, and partly for physical reasons as more extensive NMDA receptor blockade interferes with memory formation.<sup>8</sup>

**The third NOSC is a “near-death experience” (NDE),** which may be induced by an injection of a high psychedelic dose of ketamine, in the range that may be used for moderate to severe conscious dissociative sedation (2.0 mg/kg–3.0 mg/kg IM, or 150–250 mg IM). This state lasts from 45 minutes to one hour and is characterized by the following features:

- Feelings of complete departure from one’s body.
- Feelings of complete ego dissolution and loss of identity.
- A strong belief of being physically dead.
- Experience of psychological death of the mind (the self).

- Feelings of becoming a single point of consciousness (the Self, or a soul) that is simply aware of itself with no other points of reference.
- Sensations of moving through a tunnel.
- Experience of reliving one's entire life.
- Becoming aware that one is responsible for every thought, word, and action of one's life prior to the NDE.
- Awareness of how others were affected by one's thoughts, words, and actions.
- Performing the moral judgment of the self, based on one's own sense of right and wrong, holding one accountable for one's thoughts, words, and actions.
- Experience of visiting non-physical realities (either paradisiacal or hellish realms of consciousness) based on one's own self-judgment.
- Encounters with non-corporeal entities.
- Experience of visiting an eternal, featureless void (nothingness).
- Experience of psychological rebirth of the ego.

Some research has found that approximately 70% of NDEs are accompanied by feelings of calm and peace, while about 30% of NDEs are very challenging.<sup>8</sup> This NOSC type of experience can sometimes bring enhanced insight into one's deeds and misdeeds and may sometimes be very beneficial as an adjunct to psychotherapy, as well as to so-called "ego death/rebirth" psychotherapy.<sup>8</sup> This state may also be combined with non-associative, evocative music to assist with an immersion into the experience. Similar to the OBE, the NDE leaves the patient with only a partial ability to consciously recall this particular NOSC on the following day, although key features of the overall experience may be surprisingly well-remembered (i.e., surprising because ketamine's action at NMDA receptors and on neurotransmitters is likely to impede short-term memory). Ketamine-induced NDEs appear to be equivalent to natural NDEs and may facilitate stable recovery by accelerating patients' psycho-spiritual growth and broadening their worldviews.<sup>8</sup> In addition to bringing an insight into one's existential problems, the NDE can also generate a spontaneous resolution of the patient's addictive illnesses, psychological problems, and personality disorders. These experiences can also generate a spontaneous spiritual conversion and a dramatic improvement in moral character.<sup>8</sup>

**The fourth type of NOSC is an "ego-dissolving transcendental" (EDT) experience.** It is perhaps the most fascinating and sometimes the most potentially beneficial ketamine-induced experience. It is an ecstatic state of the dissolution of boundaries between the self and external reality, which may be characterized by the following features:

- Feelings of complete dissolution of one's body.

- Feelings of complete dissolution not only of ego but also the self.
- Sense of transcending normal mass/space/time continuum.
- Feelings of interconnectedness with all people (or sense of experiencing collective consciousness).
- Feelings of cosmic unity with nature.
- Feelings of cosmic unity with the universe.
- Feelings of becoming a "Unified Field".
- Feelings of becoming God, frequently experienced as an ocean of brilliant white light.
- Deep feelings of love, peace, serenity, joy, and bliss.
- Profound sense of sacredness of the experience.
- Profound sense of ineffability of the experience.
- Intuitive belief that the transcendental experience is a source of objective truth about the nature of absolute reality.

There are some indications that the EDT experience is not always dose dependent and may occur even with a low dose of ketamine (0.25 mg/kg worldviews 0.5 mg/ kg IM, or 25–50 mg IM), although it is more frequent with a high psychedelic dose of ketamine (2.0 mg/kg–3.0 mg/kg IM, or 150–250 mg IM). The EDT experience may last from 45 minutes to 1 hour and may be an excellent adjunct to transpersonal psychotherapy. Similar to the NDE, the EDT experiences sometimes generate some resolution of the patient's addictive illnesses, psychological problems, and personality disorders, including instances of spontaneous healing from chronic psychosomatic illnesses, particularly where these are dissociative/conversion in type. In addition, there are some anecdotal accounts of patients who had a spontaneous remission of some form from serious medical disease.<sup>8</sup> Like NDEs, EDT experiences have the advantages of potentially rapidly accelerating patients' psycho spiritual growth, broadening their worldviews, and possibly generating a spontaneous spiritual change with an improvement in moral character.<sup>8</sup>

## **APPENDIX B**

### **Invocations**

It is said that the journey begins with the decision to take it, well before you ingest the medicine. The invocation enables you to embark in affirmation of all that has brought you to this moment. We invite you to choose a poem or prayer that carries special meaning for you to use as an invocation, or blessing, to open your ketamine session.

Included here is a sampling of verses that have been used for ketamine session invocations. You are welcome to any of these that resonant with you.

**The following meditation from the Radiance Sutras may be read, out loud and together, by each of the people present for the medicine ceremony.**

The air I am breathing was exhaled in ecstasy  
By an ancient sun.  
The earth I am standing on  
Was born of cosmic fire.

The blood flowing through my veins  
Is as salty as the primordial ocean.  
The space permeating my body  
Is infinite as the space all around.  
Above and below, to all sides, within,  
The elements of the universe  
Are engaged in their ceremony of delight.

The attraction between suns  
Is the same  
As the love pulsing in my heart.

Abandon all these attitudes  
Of wanting to prolong pleasure  
And avoid suffering.

Let the heart be itself and feel

Whatever is there.  
Freed from clinging and avoiding,  
The heart regains its poise  
And revels in creation

Plunging deep into its center  
Discover that the heart is moved  
By a pulse that is everywhere.

Watch for a moment in which  
Two opposing perceptions occur-  
Wanting to go and not going  
Knowing and simultaneously not knowing

In the midst of this dilemma  
Let go of both perceptions  
And jump into the interval between

Reality flashes forth.  
Your being is the shining field of awareness,  
The continuum in which the opposites play.

**The following may be recited, out loud, by the person receiving the ketamine**

Let what comes, come. Let what goes, go.  
I will not try to push away what comes.  
(It's already here and it will pass by itself in time.)

I will not try to cling to what goes.  
(Grief is natural. Leaving is life. Bless the leaving too)

Let what stays, stay.  
Let what dies, die.  
Let what lives, live.

I will stop interfering with *the way of things* today.



I will be the wide-open space for all of it.  
Every thought, every feeling.  
Every moment of boredom or doubt.

I will be the awareness, Be the ocean.  
Allow these waves.

**A Lakota Blessing, another possibility for the journeyer to read out loud:**

Great Mystery,  
teach me how to trust  
my heart,  
my mind,  
my intuition,  
my inner knowing,  
the senses of my body,  
the blessings of my spirit.  
Teach me to trust these things  
so that I may enter my Sacred Space  
and love beyond my fear,  
and thus Walk in Balance  
with the passing of each glorious Sun.

The prayer above can be found on a website called Pearls of Wisdom, quotes from many different cultures and teachings. Here is the link to its page of Native American quotes,  
<http://www.sapphyr.net/natam/quotes-nativeamerican.htm>

**The Bodhisattva Prayer for Humanity (Shantideva, Indian Buddhist Sage ca 700 A.D.)  
may be recited by the attendants.**

May I be a guard for those who need protection  
A guide for those on the path  
May I be a lamp in the darkness  
A resting place for the weary  
A healing medicine for all who are sick  
A vase of plenty, a tree of miracles

And for the boundless multitudes of living beings  
May I bring sustenance and awakening  
Enduring like the earth and sky  
Until all beings are freed from sorrow  
And all are awakened

### **Loving-Kindness Meditation (Metta)**

May I be filled with loving-kindness.  
May I be safe from inner and outer dangers.  
May I be well in body and mind.  
May I be at ease and happy.  
And through the Blessings of my heart  
May the world find Peace.

Jack Kornfield - Bringing Home The Dharma

### **Forgiveness of Others meditation**

I now remember the many ways others have hurt or harmed me,  
Wounded me, out of fear, pain, confusion, and anger  
I have carried this pain in my heart too long.  
To the extent that I am ready,  
I offer them forgiveness.  
To those who have caused me harm, I offer my forgiveness  
I forgive you.

Jack Kornfield - Bringing Home The Dharma

### **Forgiveness of Self meditation**

I see now the ways I have hurt and harmed myself.  
I feel the sorrow that I have carried from this  
And sense that I can release these burdens  
I extend forgiveness for each of them, one by one

For the ways I have hurt myself through action or inaction,

Out of my fear, pain, and confusion,  
I now extend a full and heartfelt forgiveness  
I forgive myself  
I forgive myself

Jack Kornfield - Bringing Home The Dharma

### **The Guest House**

This being human is a guest house.  
Every morning a new arrival.

A joy, a depression, a meanness,  
some momentary awareness comes  
as an unexpected visitor.

Welcome and entertain them all!  
Even if they are a crowd of sorrows,  
who violently sweep your house  
empty of its furniture,  
still, treat each guest honorably.  
He may be clearing you out  
for some new delight.

The dark thought, the shame, the malice.  
Meet them at the door laughing and  
invite them in.

Be grateful for whatever comes  
because each has been sent as a guide from beyond.

Rumi

It's dark because you are trying too hard. Lightly, child, lightly. Learn to do everything lightly. Yes, feel lightly even though you're feeling deeply. Just lightly let things happen and lightly cope with them. So throw away your baggage and go forward. There are quicksands

all about you, sucking at your feet, trying to suck you down into fear and self-pity and despair. That's why you must walk so lightly. Lightly my darling.

Aldous Huxley – Island

Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.

Viktor E. Frankl – Man's Search for Meaning

Out beyond ideas of wrongdoing and rightdoing, there is a field.

I'll meet you there.

When the soul lies down in that grass,  
the world is too full to talk about.  
Ideas, language, even the phrase "each other"  
doesn't make any sense.

The breeze at dawn has secrets to tell you.

Don't go back to sleep.

You must ask for what you really want.

Don't go back to sleep.

People are going back and forth across the doorsill  
where the two worlds touch.

The door is round and open.

Don't go back to sleep.

Rumi

**We invite the person receiving the medicine to hold it to their heart before taking it and say the following:**

May this medicine guide me to the places within that need understanding, kindness and comfort. May the spirits of good, and the kindness of my attendants, protect me on my journey.

**At the completion of the session the person having received the medicine says:**

Thank you, medicine, guides and all of the sources of wisdom that were opened to my awareness today for being in my life, for making me who I am and for helping me to understand and accept that I am completely good and whole– just the way I am. I ask that the doors that have been opened to my awareness today continue to reveal to me who I am and to strengthen the appreciation that this is enough. I ask that the connections that I have made today continue to mature and deepen.