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- Internal Family Systems: A Therapeutic Model for Each Stage of the Psychedelic Experience
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Internal Family Systems: A Therapeutic Model for Each Stage of the Psychedelic Experience

Nancy L. Morgan, PhD, Patrycja Radecka, PgDip, and Coen de Koning, BSc

INTRODUCTION

In his Introduction to the Internal Family Systems Model [1], Richard Schwartz introduced the field of psychology to a new model of therapy that offered a novel perspective on how we see ourselves. This perspective heralded a new paradigm that views all people as being composed of parts and a Self and embraces this as a good thing. One of the most exceptional elements of the IFS model is the view that the Self can never be damaged regardless of the trauma we experienced. The model affirms that we are all born with Self. However, as children, when we experienced pain, neglect, or abuse rather than the loving presence of others, our parts mobilized and took on protective roles to ensure the injured parts of us were protected from further harm. Schwartz defined the mobilizing parts as *protectors.* The parts being protected or suppressed, so their pain did not flood our systems were identified as exiled parts or *exiles.*

The shift from behaviors being viewed as disordered to behaviors being seen as necessary and adaptive is being embraced by clients, with waiting lists for training ever-increasing and IFS therapists numbering in the thousands. A similar scenario exists for those seeking healing through psychedelics. Where psychedelics were once the scourge of drug and law enforcement agencies, they are now seen in a new light that offers hope to those who have not found relief through the standard methods of treatment.

In addition to IFS being embraced by those seeking therapy, it is also being utilized by members of the psychedelic-assisted healing community, psychedelic researchers and trainers, and programs currently providing certification in psychedelic-assisted therapies and research as an ideal model for both guides and clients utilizing psychedelics for four primary reasons:

1. IFS is the only evidence-based theoretical framework that offers the view that each of us is truly greater than the sum of our parts. Clients who have experienced both IFS therapy and psychedelics often share that their view of a concrete self gives way to a view that their true Self is an essence. This view is not limited to psychedelics. It can also be experienced in states such as those reached in deep meditation, trance dance, shamanic drumming, and breathwork.
2. Multiplicity instead of Monomind: IFS maintains we are a multiplicity. This view helps clients explore contradictory emotions and impulses and creates the space necessary to investigate the different origins of these emotions and impulses. It also helps clients relate to emotions and impulses in a healthy way.
3. IFS welcomes all parts. IFS assumes all parts, even the ones whose strategies cause problems for the client, such as binging on food or alcohol, gambling, etc., are ultimately found to be responses to protect the client's system. A positive intention always underlies even the most extreme behaviors. IFS welcomes all parts with curiosity and compassion and

explores why parts use their specific methods to bring hoped-for relief.

4. Healing instead of Coping: IFS is a constraint-release model that also offers healing steps that include witnessing and unburdening embodied feelings, thoughts, sensations, beliefs, and impulses that have been held in the body from past emotional wounding. Relative to psychedelics, IFS offers a means to navigate protective systems to reach the constraint, while the psychedelic substance magnifies this process, making it much clearer to recognize what to do and when.

Together, IFS and psychedelics enable clients to see the conditions surrounding the constraint much more clearly, making releasing it (using the tools from IFS) much easier to do more precisely and effectively. Another way to look at this is that psychedelics make our minds flexible enough to reach those deep layers of our hierarchical brain, so the IFS process can help shift the deep-seated beliefs stored there. Also, IFS provides the map and the skills necessary to safely approach charged material while respecting the protective systems. The model teaches us how to release the charge without damaging healthy parts of the system or triggering backlashes after the experience. The use of psychedelic substances without this understanding can, and often does, result in protective layers being stripped away, unearthing suppressed material in ways that leave the client shaken and having to pick up the pieces.

Ego and Parts

What contemporary psychology calls the ego, IFS sees as the protective parts' efforts to ensure safety and minimize harm.

According to Sigmund Freud, the human psyche consists of three parts, which he called entities. The 'Es' (it) houses our primitive needs, primordial desires like hunger, thirst, fear, lust, etc. The 'Über-ich' (lit. Uber-self) contains our cultural and social education and understanding. Lastly, the 'Ich' (Self) manages to get what the 'Es' wants, using the information and rules that the 'Über-ich' has remembered.

'Ich' can refer to different things: It is the German word for I. For example "Ich bin hungrig." (I am hungry) or "Du und ich" (You and I). It can also mean the mind of a person, the inner self. If used to refer to the inner self, it is usually spelled Ich with a capital i. Example: "Meine Perspektive, mein ganzes Ich, hat sich durch diesen Unfall verändert" (My perspective, my whole self changed because of that accident).

The English word 'ego' comes directly from Latin egō 'I, myself,' an ancient word used to convey the first person singular throughout the Indo-European family of languages (Old English ic, German ich, Greek égō, Sanskrit áham, Hittite uk, etc.) the common origin being Proto-Indo-European. Proto-Indo-European (PIE) was spoken around 4000 BCE. (http://paleoglot.blogspot.com/2007/04/origin-of-indo-european-ego.html)

The terms "id," "ego," and "super-ego" are not Freud's own but are Latinizations originating from his translator James Strachey. Freud himself wrote of "das Es," "das Ich," and "das Über-Ich"—respectively, "the It," "the I," and the "Over-I" (or "Upper-I"); thus, to the German reader, Freud's original terms are more or less self-explanatory. The term "das Es" was borrowed from Georg Groddeck, a German physician whose unconventional ideas inspired Freud. Groddeck's translators render the term in English as 'the It.'

James Strachey's translation of das ich into ego birthed a perspective that envisioned ego as a thing, an entity that arouses our pride and defends us against attacks on our identity. This ego has been much maligned by the majority of self-help authors and by many schools of Buddhism.

IFS's *Self* reflects our most authentic self, our source energy or healer within. Our genuine being. It is who we are when our protective and wounded parts are not activated and blended with our sense of self, obscuring its warmth and radiance.

The mainstream understanding of self is expanded upon in IFS. Our capital "S" Self is the healing energy within us. Akin to the *Source, Atman, Buddha Nature, Christ Consciousness, Spirit,* to name a few examples.

In his book, No Bad Parts [2], Schwartz writes, *"In Christianity, the definition of sin is anything that disconnects you from God and takes you off your parts. Burdens disconnect Self from parts and give them extreme impulses. Burdened parts either don't experience Self at all or don't listen to self. So when parts are unburdened, it's not only that they immediately transform, but they also now have much more connection to and trust for Self, which is the second goal of IFS."*

In IFS, Self is much more than the *who* typically described when clients tell us about themselves.

IFS manifests as an empowering paradigm for understanding and harmonizing our inner systems. It is a model that can help people heal. It offers the world a model of what Self-leadership looks like versus the parts-led model with which we are most familiar. It is imperative to note here that parts do not result from trauma. Parts are not their burdens; however, they carry the burdens that result from trauma. A burdened system is represented below

Note also that parts take on roles, but they are not this role. When burdens are released, associated protective parts can let go of their old role and take a new, healthier role. Furthermore, though parts often show up to us through emotions, body sensations, or thoughts, parts are not these emotions, body sensations, or thoughts. Parts use these to protect the system, and with our support, they can stop using self-destructive or limiting methods and start using healthier ways of protecting the system.

The Burdened Internal System

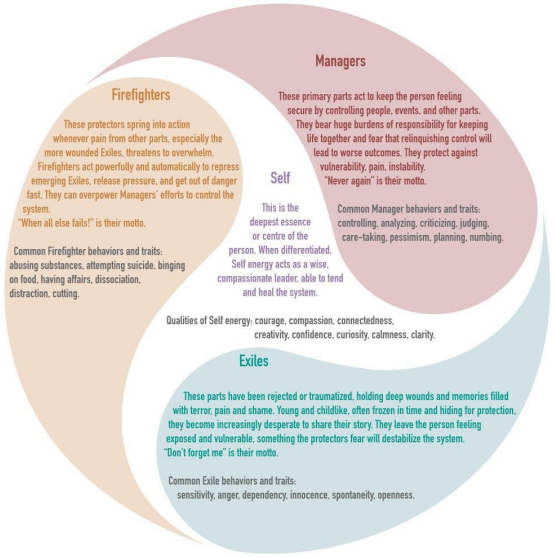


Image based on the schema of Mariel Pastor and Janet R. Mullen LCSW of which the texts were adapted from 'Internal Family Systems' by Richard Schwarz PhD.

IFS'S EARLY INFLUENCE ON RESEARCH

Researchers Michael and Annie Mithoefer, whose 20+ years of research with the Multidisciplinary Association for Psychedelic Studies (MAPS) using Methylenedioxymethamphetamine (MDMA) for individuals suffering from Post-Traumatic Stress Disorder (PTSD), are both IFS-trained clinicians. In addition to the now-proven benefits of MDMA to reduce and even eliminate the symptoms of PTSD, Mithoefer adds that the role of the guide is essential to positive research outcomes.

Results from other research with psychedelics that have used either no therapeutic support or only a bare minimum have produced less positive outcomes, and research subjects reported struggling emotionally after the research was completed. The Mithoefers' research not only had impressive results, but clients reported they had kept improving after

the program had ended. The effect was not just healing but generative.

An important area in need of development is the training of guides. Michael Mithoefer's perspective is that working with the guide's own internal system is one of the most important areas to cover in guide training.

In a 2020 conversation with Ben Sessa, MD, he shared that one of the areas of psychedelic research needing development pertains to establishing an approach that better prepares guides, so their own intrapersonal experiences do not negatively impact the client at any stage, from preparation through to integration.

Dr. Sessa acknowledges that psychedelics are not a magic cure and may not be for everyone. He does not shy away from revealing and exploring the shadow side of psychedelic use. This shadow side can also involve the intrapsychic energies of the guide.

Another powerful reason to focus on the guide is that psychedelics can open the client to experience enhanced sensitivity to their own state and the setting. The guide's behaviors are the most influential elements in the setting because the client, as a social being, is highly intuitively attuned to the state of other people, especially in an unfamiliar situation. The client's system will pick up on highly subtle cues unconsciously communicated by the guide. It is even more critical to honestly be in a state of grounded compassionate curiosity, and the only way to be present in that state is for guides to work with their parts, including parts related to the client they will be guiding.

CONSCIOUSNESS MEDICINE

In her book Consciousness Medicine [3], Francoise Bourzat presents an approach for those who provide psychedelic-assisted supports that she defines as the Holistic Approach, a mindset that provides those working with psychedelics an orientation to how best to hold a safe and supportive frame for the work.

The Holistic Approach

- Assumes that the whole is more than the sum of its parts.
- Assumes that each part of the whole is essential, intimately interconnected, and interdependent.
- Assumes the presence of an integrative, intelligent, purposeful energy.

Bourzat further identifies that the Holistic Model includes aspects of Body, Mind, Spirit, Community, and Environment infused with the qualities of love, wisdom, and creativity.

The Holistic Approach is very much in line with systems thinking. IFS and its approach to parts are a result of systems thinking. We see ourselves as a system that is part of larger systems embedded in greater layers of systems. Therefore, we should also find that we have unique and separate systems that relate to each other in complex ways. This system's approach to ourselves and our mind logically implies the existence of parts. We can see the parallel in family therapy where the work encourages a healthy relationship between the different systems (family members). The systems-thinking lens suggests that we should have systems inside of us that have their own unique relations with other systems inside of us and that we should be able to do family therapy on larger scale systems too, with communities, companies, cities, nations etc.

Mary Cosimano, M.S.W., has served as a research coordinator and study guide in over 350 psilocybin journeys for Johns Hopkins University School of Medicine's psilocybin studies for over 20 years. Based on her two-decade-long experience as a guide, Cosimo writes, "One of the most important outcomes

of this work: that psilocybin can offer a means to reconnect to our true nature—our authentic self—and thereby help find meaning in our lives [4]."

Cosimano summarizes the nature of her work in one word: Love. The prominent meaning-making and transformative experiences of love and agape (the spiritual, transcendent, or highest form of selfless love) frequently emerge in psilocybin sessions.

The emergence of love within the psilocybin-facilitated mystical experiences, and its role in cultivating compassion and promoting healing, is relational. IFS teaches us how this works intra-personally as well as inter-personally. The client's expanded awareness is held in the loving space Cosimano provides. There is no technique. There is simply an attuned presence and the qualities of self-identification that in IFS are identified as the 8C's: Calm, Compassion, Connectedness, Curiosity, Courage, Confidence, Clarity, and Creativity.

In their book, *The Varieties of Psychedelic Experience,* Masters and Houston write:

> *"It, therefore, should be one of the chief duties of the guide to lead the subject through this newly exposed terrain and elicit its varied contents to lead finally to their interrelationship in the experiencing subject-much in the same way as Virgil led Dante through the medieval hierarchical cosmogony so that its parts became integral to Dante the man. It should be one of the chief tasks of the guide to assume the role of Virgil in this chemically-induced Divine Comedy and to help the subject select out of the wealth of phenomena among which he (sic) finds himself (sic) some of the more promising opportunities for heightened insight, awareness and integral understanding that the guide knows to be available in the psychedelic experience* [5]. *"*

In her book, *The Ethics of Caring* [6], Kylea Taylor identifies ethical issues in working with profound client experiences and non-ordinary states

- The need for a therapeutic paradigm that encompasses the phenomena of non-ordinary states.

We concur with Taylor that the therapist needs to have a larger perspective to be able to offer a supportive container for the client. An interesting challenge working with psychedelic states is that those states are far more extensive than the human mind, so in a way, we can never contain the psychedelic state of our client consciously. We have to connect deeply to our being, including those states even when we are not aware of them. Self is that state of being from which we can offer a container that is large enough to hold the client in the psychedelic state (if the client blends in the session, our Self is larger than that part. If the client connects to Self in the session, we can meet them from Self and tell them: *yeah, go for it*!)

- The special competencies required of a therapist or facilitator work with non-ordinary state experiences.
- A greater need for a safe setting.

Our experience has revealed that in the psychedelic state, we can get more sensitive and connect to wounded parts to which we often cannot connect in typical, everyday consciousness. These parts will only allow us to connect to them and witness them to the extent they feel safe doing so. We need a genuinely safe setting to do deep work, and we cannot fake this. The parts need to feel that safety to relax into the experience. Nevertheless, we can explore what they need to feel safe, which is a great way to prepare for a psychedelic session.

- The potential for stronger and more complicated transference and countertransference.

Because our clients become so sensitive, we note that they are highly likely to

respond to the guide's appearance and characteristics, which could activate memories from their childhood. These memories will be amplified with psychedelics and have a much more significant impact as well as trigger increased and more complicated transferences, which trigger the guides' parts' responses (countertransference).

Given the stronger and more complicated transference identified by Taylor, this transference must not trigger the therapist's or practitioner's protective system or what lies underneath their exiled parts. When this happens, IFS terminology identifies that the therapist or practitioner has become *blended* with a part. At which point the therapist or practitioner is no longer in possession of the qualities of Self that are endemic to the healing process.

Psychiatrist Julie Holland has written about the epidemic of disconnection that antidepressants and social media cannot fix. In her book *Good Chemistry* [7] Holland shares that this state of isolation puts us in a fight or flight mode that impacts our sleep, body's metabolism, and libido. She notes that we can sleep, digest, and repair when we feel safe and loved. We heal.

IFS is one step further toward metacognition (awareness of our own thoughts, emotions, behaviors, patterns). In Buddhist or mindfulness meditation, the invitation is to observe the mind (without meaning to diminish these respected techniques); this is a passive, one-way process. IFS is aware of abilities recognized by the metacognition process and also recognizes that we can interact with our thoughts and emotions as we can with other people, getting more insight into the organization of our psyche. There is great potential in building this two-way relationship with our parts. Developing this relationship is powerfully transformative and recognizes that the mind is naturally multiple, and that this multiplicity is a good thing. Our inner parts contain valuable qualities, and our core self knows how to heal, allowing us to become integrated and whole. Unlike in most every therapeutic approach that seeks to exile or copes with undesirable qualities and behaviors in IFS, *all parts are welcome*.

The personal work of IFS therapists and practitioners with their own inner systems, their protective and exiled parts, never ends. We note that we have been working from our parts when we find ourselves feeling scared, frustrated, hopeless, incompetent, etc., and know that it is time to seek consultation and our own therapy supports.

Experienced IFS therapists and practitioners experience first-hand the difference between working from Self, this curious, calm, confident, compassionate, courageous, clear, connected, and creative state, and working from a part that always feels more or less uncomfortable in some way. Working from Self enables us to deal with anything our client goes through and do so with love. This is especially important when working with psychedelic states because of their wildly unpredictable and more extreme nature.

PHYSIOLOGICAL SAFETY

Psychedelics have been reemerging as therapeutic allies due to the myriad benefits, they provide coupled with their safety. In his book, *Sacred Knowledge* [8], William Richards identified that the physiological safety of the major entheogens has now been quite firmly established. Studies over the past several decades have shown psychedelics to be essentially nontoxic as well as physically non-addictive.

PREPARATION

The first step in preparing an individual for their psychedelic experience involves the following.

1. The guide asking themselves the following questions:
    a. What emotions do I feel towards the client? Do I feel sorry for them? Do I feel the need to help them by changing something in their system? Does something in the client irritate or scare me?
    b. What are my life circumstances? Do I need clients to pay my bills? Does this client remind me of someone in my life? In myself? Do I feel curious and open?
2. Intake: life and social circumstances of the client.
    a. Does the client have the means to take a break from work life if needed? Do they have a social support system or a therapist? Are they financially strong enough to pay for a therapist? Does the client have a family member or partner to support him/her if needed?

Guides consider medical issues and contra-indications. How are the clients with strong emotions and body sensations? Is there curiosity or need for suppression or avoidance? Can they take responsibility for the problems in their life, or do they blame external sources?

The main goal of preparation is for the client to know who they are and deeply feel safe to relax into the non-ordinary state. Because we are social creatures, our primary sense of safety relies on nonverbal cues from the people around us. Therefore, good preparation relies on building rapport with the client, investigating, and addressing the areas where the client's system holds fear for the coming experience. This may involve psychoeducation, somatic therapeutic exercises, unburdening scared parts, adjusting the setting to improve the sense of safety for the individual, teaching them how to connect to Self, but certainly spending a lot of time together listening to the (parts of the) client and making sure they feel seen and heard.

In the MAPS-funded studies carried out by Mithoefer, the guidelines for preparation followed a standardized FDA protocol. The protocol consisted of a 12-week treatment period preceded by three Preparatory Sessions.

When attention is not provided in the therapeutic setting and therapy proceeds without regard to embodied tightness and constriction, it is highly likely there will be backlash after the session, which happens when the psychedelic substance overwhelms the protective systems. When parts signal us through the body, they are calling for our attention. Backlash can occur in several forms, including parts inhibiting the client from returning to future sessions, accidents that result from the client being slightly dissociated from their body after the session, and feelings of unease and heightened anxiety. Backlash can also come in the form of undermining or blaming the guide for doing a bad job. To point out the importance of respecting the protectors, this can also bring very real (professional) dangers to the guide.

Alternatively, when it is not overwhelmed, the protective system may block the experience, preventing the client from sinking into challenging memories or experiences or completely blocking the whole experience. Blocking can take the form of confusion, looping, numbness, excessive talking, dissociation, significant tensions, temporary psychotic symptoms, bursting with ungrounded excitement and joy, etc.

If approaching a journey session activates parts and those parts' feelings, fears and concerns are not acknowledged, the parts can and often do impede the journey. Clients may decide not to come or may suddenly come down with an illness or a reason

not to attend the session. If these inhibiting factors are not sufficient to stop the client from undertaking the journey, parts can impede the onset of the psychedelic medicine or the ability of the client to experience the expected effects, regardless of the dosage and setting. If the mindset is not aligned, the journey will not unfold to its fullest potential.

There is nothing wrong with all these behaviors. They are some of the myriad ways we resist becoming more authentic. Our feelings display how we handle the 'threat' of the unknown. When we continue to show up for ourselves and bring these resistances into sessions, we discover that resistance becomes our teacher, exposing our hidden motives, old identities, and unconscious places of pain and fear, where we do not want to let go.

As we open into ourselves, the inner journey becomes an adventure rather than a struggle if parts' fears and concerns have been addressed beforehand. Clients feel much calmer when their parts have been given permission prior to their journey. A sense of relief that follows when the client moves with intention into those inner reaches and can explore the deepest parts of themselves in a safe and supportive external as well as internal environment.

We have found that the more extensive the preparation, the better the outcome. It is good to check what parts come up when we hear that: when our system is in crisis, we act from the habit, not our mind and understanding. The more we embody the IFS process, the more access we have to it during struggling.

Remember, the degree to which the client's system will allow the client to immerse into the experience depends on the degree of safety the system experiences.

Preparation includes the agreements between the guide and the client, which are common to therapeutic work. These agreements are enumerated below and built upon those identified by Taylor [6].

1. A guide will do no harm.
2. Confidentiality will be kept by the guide.
3. A guide will obtain informed consent from the client.
4. A guide and client will tell the truth.
5. A guide and the client will keep agreements with each other.
6. The client will not cause violence to persons or property.
7. Both will not act sexually or romantically with each other
    1. This agreement can be expanded to include the client to leave at least their underwear on at all times. It can be tempting to strip for a sense of liberation, so a clear agreement helps to protect this boundary.
8. Both will agree clearly on the time, place, duration of sessions, and the fee.
9. Consent for physical touch identifying parameters.
    1. A practical safety-related point is an agreement that the door to the bathroom never be locked and that the guide will respect the privacy of the client while in the bathroom and not to enter unless the client does not respond.
    2. We want to highlight that consent for physical touch can include the need to restrain the client if the client is in danger of harming themself. Some clients can become a little paranoid, may feel the (strong) need to leave the space or the house, and may need to be prevented

from doing so for their own good. At least agree not to leave the clearly-defined safe space for the duration of the experience until both parties feel the client has regained enough ordinary consciousness to be left alone. In the same vein the client will want to agree that the guide will not leave the client (to go home) until both parties agree that the experience is sufficiently over.

10. The psychedelic experience is considered a Round-Trip ticket.
    1. The guide is going to be present to support the client throughout the psychedelic experience from the beginning until it is fully completed, and both parties agree the day has ended.

Adele Getty wrote that, while on a month-long retreat focusing on shamanistic practices from around the world, one of the 100 participants, Francis Huxley, asked the other participants, "In whose light do you do what you do?" Getty cites this important question that each of us should answer before guiding others into the sacred. "What brings us to do this work? [9]"

SETTING INTENTIONS

The process of setting an intention provides a way for the patient to witness how they create their session experience. The issues of their life may be a starting point, giving the patient a sense of what they do not want. Maybe they are resistant to becoming clear, or perhaps they may have no idea what they want. Maybe they keep changing their intention as they come closer to the session time, allowing issues to instill themselves into a deeper desire. Nevertheless, investing time to explore which intention feels meaningful for this experience will generally improve the outcomes.

There is a tension and a balance between having a clear and supportive intention vs. allowing whatever needs to happen to happen. Holding too tightly to the intention may tunnel-vision a client who will then miss wonderful chances for healing experiences. Conversely, having no intention to direct their experience may leave the client adrift, and they will emerge without clear lessons. One client once compared the psychedelic experience to a trip to IKEA; they need a list to direct them, or they will get lost in all the choices, but they want to also keep their eyes open for those wonderful goodies they never knew they needed.

A good practice is for the client to formulate and set a clear intention before the experience and then let it go as they go in. Afterward, the guide can reflect on how the experience related or did not relate to the intention.

We have found we often do not get much resolution around the intentions we have set before going into an experience, though we may have gained a lot in the process of setting that intention.

THE PSYCHEDELIC JOURNEY – THE EXPERIENCE

This is where the magic happens. Our inner scientists love this aspect because it realizes that what happens is so far beyond our understanding, we cannot know what to do, but still, we can learn to do this work in a way that relatively reliably brings positive results. This gives us a valuable hint towards how we may approach the work of guiding a psychedelic experience. Here, too, there is a tension between guidance by the knowing guide and following and supporting the processes like an intuitive midwife.

Often the guide is recommended to be non-directive, but we feel this is only partially true and ignores critical aspects of their role. Obviously, guides do not just sit back and allow whatever happens to happen while they observe from the sidelines. Because the psychedelic experience makes people highly sensitive to their environment (hence the observation that the most significant aspects for a positive outcome are the "Set and Setting") and small events can have a radical impact on the processes. Robin Carhart Harris' Entropic Brain theory [10] and the idea of enhanced criticality goes into details of how this may be explained from a neurobiological perspective. This aspect of psychedelic experiences is evident in the feeling that everything that is seen, felt or happens seems to be infused with a deep symbolic meaning.

So, we need to respect that we are an inextricable part of the process and should take responsibility for the part we play. As guides, we should acknowledge that we will direct the experience on many different levels, often in ways we cannot avoid, and that is okay; the choice of music, the tone of our voice, whether we check in on the client every 30 minutes or every 45 minutes, or only when we have reason to suspect that they need support. Every word we say and every word we do not say will direct the experience in more or less subtle ways.

The psychedelic experience often brings us to places in ourselves where we are lost, stuck, confused, and need support. Clients will often regress to painful memories in an attempt by their system to heal, and we need to realize there is a very real risk of retraumatization in the psychedelic experience. In those moments, as guides, we need to be very subtly attuned to what is going on in the client and the room, and we have a chance to use this for the greater good.

We note that it is generally a good approach not to assume you know where the client's experience needs to go but to carefully observe what seems to be happening and see if you can trust and support the natural unfolding of these processes at a pace that fits the client's system.

Generally, it is better not to tell the client what to do but to offer companionship in their unfolding experiences. To offer support in the form of a safe and reliable foundation or container for them to experience whatever they need to experience to heal. It helps to keep in mind that whatever the substance is doing is beyond our understanding and humbly trust that the client has a Self and that the system will offer up whatever needs to happen to heal in the best way for the client. In one of Coen's first personal psychedelic experiences, we were given the mantra: "It is all part of the process." That mantra served as a valuable guiding thought for that experience and his development as a guide and therapist ever since.

INTEGRATION

Coen was asked how to hold on to the lessons from the psychedelic experience. He answered: 'in any way you can!' We feel this response imparts a vital clue to the integration process. Explore with the client what would work for them. Some start to do yoga, some meditation, and some come back to do more psychedelic work on a regular basis. Some divorce their partner, change their job, start to do voluntary work, get a dog, etc. There is no recipe for integration.

Guides need to find out what fits with their client, what can their different parts accept without too much resistance, and which changes they can be excited to get behind. This can take unexpected forms in scale, time, frequency, effort, and so forth. Coen feels the integration process of his first psychedelic experience was to have a couple more psychedelic experiences, start his training as a guide, then as a therapist, and in

time that led to his integration process becoming the life he lives today.

Often clients do not respect how fleeting a psychedelic experience can be, especially the content. Like a dream, it is highly delicate; it fades and dissolves from memory in no time. Furthermore, clients can very easily fall back into the routines of their previous life because, though they have had a deep experience, their old environment has not changed.

After a psychedelic experience, their minds are very flexible. This can help clients make positive changes in their lives that will quickly solidify into healthy new habits, but it also means that if they do not make changes and fall back into our old routines, much of the benefits of the experience may be lost, and the experience becomes just an extraordinary memory (or worse, there is an equally great potential of allowing oneself to develop unhealthy habits).

It is good to record by writing, voice recording, or drawings, the experience and the lessons from it to help keep them alive. There is the risk of disconnecting from the feelings and emotional content if the client goes into an overly rational and mental part to record the memories. Therefore, we generally recommend clients not to write too much while they are still in the (tail end of) their experience as this engages their rational mind. Drawing is far less rational, so this is an ideal alternative. The impulse to write often also indicates a part that cannot or does not want to surrender to the experience.

We believe it is good to see the integration process as a way to give the experience a place in our life. This means to help the client look back at the experience and see if and how they can relate it to the various aspects of their life. The intention set before the experience helps with this. Guides can look back at the intention and see how the experience could be related to this.

Often the psychedelic experience was ineffable, quite confusing, abstract, or on such a large scale it is hard to express in words. There may have been somatic elements that were hard to relate to meaningfully, such as how the client's body may have needed to move or felt unable to move during the psychedelic experience. Here different therapeutic modalities can help, such as art therapy, psychodrama, and Somatic IFS, which can be drawn upon to support the expressive experience so with the client we can step back and together further explore the revealed depths of their experience. Exercises that support integration include writing, drawing, or creating a collage, a map of a client's life combining as many layers as possible, relational, financial, career, romantic, artistic, physical, and mental health, etc.

Often, clients can discover very meaningful elements they were not aware of consciously. In this way, art therapy can help them bring meaning from below the surface into conscious awareness. In the same way, they can use psychodrama to act out aspects of the experience and Somatic IFS or therapies like Hakomi to feel into and investigate the body sensations. Guides can also use vocalization or movement meditation and invite clients to express parts of their experience in ways that can help them become aware of what was really going on in the experience. If done mindfully, these methods can help them uncover the meaning beyond the direct experience, and the integration work will be to relate those experiences to their daily lives.

What role does integration play in the process of awakening? Remarkable experiences can inspire, but without integration, they can also bring a sense of alienation. In 2021 the Rubin Museum of Art created a 10-episode series hosted by musician and performance artist Laurie Anderson. In episode 9, Anderson interviews Patricia James, a Medicine Woman of Seminole tribe heritage

who has been formally trained in the Cheyenne tradition as a priest and a pipe carrier, both of which identify James as a steward of the sacred pipe and the religious ceremonies for which it is used. James shares her views on the importance of integration [11].

The episode begins with James referencing a sculpture of an intertwined pair of lovers, Guhyasamaja and Sparshavajra. The sculpture represents the concept of nonduality, the idea that everything is interconnected. The union of apparently opposing forces is often expressed in Tibetan Buddhist art as the sexual union of male and female, or compassion and wisdom, and represents union rather than separation. This union is necessary for elevating consciousness toward awakening.

Guhyasamaja and Sparshavajra; Beijing, China; Ming dynasty, ca.1400–1500; Gilded bronze; Asian Art Museum of San Francisco; The Avery Brundage Collection, B64B23

IFS teaches us that the Self cannot lead when blended with protective or exiled parts. Exiled parts are the young parts that have experienced trauma and experience pain, terror, and fear. Exiled parts are isolated from the rest of our system. The parts that protect the system from experiencing the exiled part's pain, terror and fear are referred to as protectors in IFS terminology. Because protective parts are often the same age or are only slightly older than the exiled parts they protect, our responses to perceived threats are often seen as childish. They are the efforts of desperate protective parts that most often generate the exact opposite of the hoped-for result. This is true for all of us and is the reason we can spend our entire lives feeling separated from ourselves and others.

The integration process can become quite intuitive when we approach it from the perspective that we are a multiplicity and contain many parts, some of which are carrying burdens that can be revealed and released prior to, during, and following the psychedelic experience. When Self-to-part relationships are harmonized, a client can lead from Self rather than burdened parts.

In the MAPS-funded MDMA research studies, the 12-week treatment period identifies three integrative non-drug psychotherapy sessions following each experimental session.

The work after each psychedelic session is equally important. There is a form of spiritual bypass by having one psychedelic experience after the other without really taking the lessons from each experience to make changes in a client's life. Much more can be said about this because valuable nourishment comes from setting apart time to simply dive into the subconscious - especially when a client does this with a group of like-minded people.

The MAPS 12-week program with the three experiences and three integration sessions per experience is very powerful. In their private practice, Patrycja and Coen's clients often do not have the luxury of this amount of time, nor do most have the finances to invest so deeply in this level of work.

To provide individuals from all walks of life with the same opportunities for healing,

Patrycja and Coen developed a six-day program as a workable condensed version of the MAPS model. They recommend that their clients add additional online preparation sessions before the psychedelic experience. They have also found that there is a great benefit to clients to have not just one but two psychedelic experiences because not everything rests on the first experience; clients can use the first experience to gently explore what they are getting into by dipping their toes in the water before jumping into the deep end of the pool.

With the integration sessions between the first and second psychedelic experience, clients are much better prepared for the second session where they feel they can really "go for it."

Patrycja and Coen share that they have never experienced a client reporting that the six-day program was too much in too short a time. This may be because the dose and the pace of the work are adjusted to each client individually.

FINAL CONSIDERATIONS – HEALING AND EMOTIONAL AND SPIRITUAL CARE

As we untangle the patterns that cause pain or do not serve us, it is natural for clients to feel a little vulnerable until they are able to live with their new discoveries. Even more often, clients experience that being safe or empowered feels uncomfortably unfamiliar, and they have an unconscious impulse to move back into old, familiar but unsafe situations even though they are less healthy. It may take some time for clients to make new, healthy decisions on their own. Relationships shift and change as they break free of patterns, and it is an art to develop conscious ways of still being around people who trigger them or as they prepare to leave those who are no longer going to be a part of their path. As they relax into their essential Self, their experience of change within outer relationships also softens.

Life often presents a challenge quite soon after a psychedelic session, which allows individuals to apply what they have discovered. One of the most common discoveries is to be loving and gentle with oneself when we fall back into old, addictive, or unhealthy patterns. Energy freed up in this way can be redirected to new intentions.

It is important to engage members of a supportive community to see how the integration process is unfolding. Often this is an important challenge in integration. Many clients, after having had a deeply impactful experience that vastly expanded their understanding of life, come back to a partner, family, job, and friends who are not open to this experience at all. These important people may dismiss very valuable aspects of the client's experience as meaningless fantasies, hallucinations, or merely drug-induced side effects.

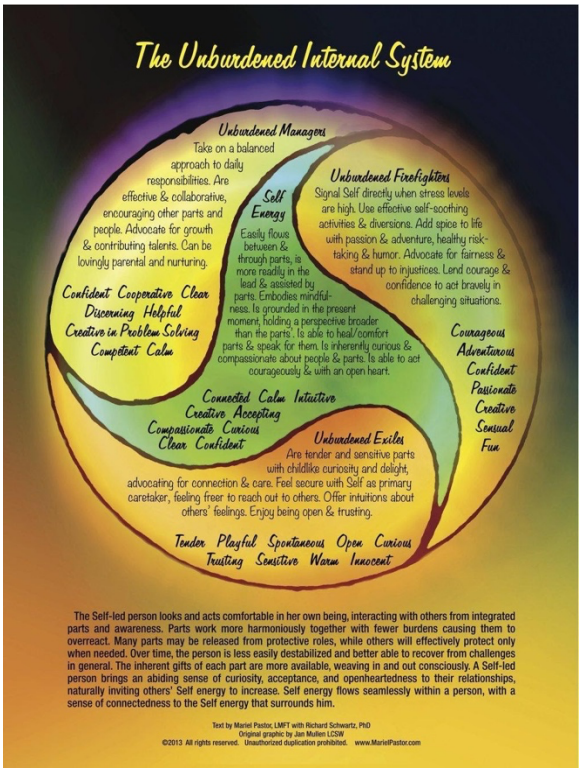
In the workplace, it is often even dangerous, at least for some clients' careers, to even admit to having engaged with psychedelics. These clients need to have at least a small group of people with whom they can meet to safely share their experiences. Often online psychedelic integration or sharing circles offered by psychedelic associations can help. Another option is to enroll in a yoga group where altered states of consciousness are often respected much more and offer chances to meet at least one or two people who are open to listening to the client's experiences.

Online group psychedelic support is increasing on Facebook, WhatsApp, and Signal. Just being able to send a message saying they are struggling with life after their experience and receiving emojis of hearts and hugs from others can be very beneficial and remind clients they are not alone. Coen remembers researcher Rosalind Watts mentioning that an issue with her research had not

initially offered space for proper preparation and integration within the boundaries of the study. In response to client feedback, Watts and her fellow researchers set up online sharing circles for their research participants to deal with this issue. Watts addresses this in the ATTMind Podcast episode [12].

CLOSING

We close in recognition of all who have come before who have contributed so much to healing themselves and guiding the healing of others. We know the process of integrating the awakening of consciousness continues throughout a lifetime. May your guided psychedelic experience support your eternal unfolding into what lies beyond our relative knowing.



AUTHOR INFORMATION

Send correspondence to Nancy L. Morgan, PhD. (dr.nlmorgan@gmail.com)

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Case Report

Successful Self-Medication of a Major Depressive Episode with Repeated Administration of LSD: A Case Report

Jennifer Lyke, PhD and Trey Brasher, BS

Abstract:
This report describes the successful treatment of Major Depression by self-medicating with LSD. The subject of this case was a young, Caucasian, unmarried man who matches the demographic characteristics of people most likely to self-medicate and those most likely to use psychedelic drugs. Details of the participant's experience are helpful in understanding many aspects of psychedelic self-administration. They may also apply to other cases, such as psychosocial factors that contributed to developing depressive symptoms; history and symptoms of the disorder; prior substance abuse history; rationale for self-medication; choice of drug and strategy; psychological mechanisms for symptom alleviation; possible adverse effects; other psychosocial consequences; and follow-up experiences and reflections since self-medication.

KEYWORDS: LSD, Major Depression, self-medication, case study

INTRODUCTION

The psychedelic research community is currently engaged in a debate regarding the rate of mental health problems in psychedelic drug users. Some researchers claim the rate is low [1], while others suggest that conclusion is mistaken [2]. Either way, there are certainly some cases of psychedelic drug users who experience mental health problems. The current study investigated this issue by documenting a non-clinical case unique to the literature on self-medication of psychiatric conditions with psychedelic drugs. This case is important because it illuminates an intersection between two strains of research that address mental health issues among psychedelic drug users from divergent points of view.

The first strain began in the 1960s and 1970s with early attempts to use psychedelic drugs to facilitate psychotherapeutic change [3-5]. After the Controlled Substances Act of 1970 made it illegal to use psychedelic drugs in research, exploration of the therapeutic utility of psychedelic drugs was put on hold. Recently, researchers have begun once again to investigate using these drugs to treat psychiatric symptoms, such as alcoholism [6, 7], nicotine addiction [8], obsessive-compulsive disorder [9], and Post-Traumatic Stress Disorder [10]. Most relevant to the present study, Rucker et al. [11] recently reviewed clinical treatment studies using psychedelics in patients with mood disorders and found that 79.2% of patients in 19 studies showed improvement after treatment. Carhart-Harris et al. [12] have demonstrated success with treatment-resistant depression specifically. Finally, depression and anxiety related to terminal diagnoses have also been impacted by treatment with psychedelic drugs [13, 14]. Thus, current findings based on clinical trials suggest psychedelics may be useful for treating a wide range of psychiatric disorders.

The second strain of research has investigated the phenomenon of self-medication of psychiatric disorders with various substances. For example, Turner et al. [15] recently found that the prevalence of self-medication with alcohol or drugs among people with mood or anxiety disorders ranges from 21.9% to 24.1%, with young, Caucasian, unmarried males being especially likely to endorse self-medication. In addition, data from

multiple sources has shown that psychiatric symptoms often precede substance abuse among those who self-medicate [15, 16]. Research has thus confirmed that some people with mental health problems turn to self-medication to treat them. In some circumstances, such uncontrolled treatment may exacerbate the problem or result in new symptoms such as addiction.

Case reports are essential when ethical or legal issues constrain experimentation with psychedelic substances. A review of case reports related to psychedelic drug use reveals mostly negative outcomes such as genital self-mutilation [17], exacerbation of schizophrenic symptoms [18], induced mania [19], and substance dependence [20]. However, a smaller group of case reports suggests psychedelics may be successfully used to treat symptoms of Obsessive-Compulsive Disorder, Bipolar I Disorder, Anorexia Nervosa, and Major Depression [21-23]. However, Wilcox's [24] report of an individual who successfully treated his own OCD with psilocybin most closely parallels the case reported here. Although the symptoms and choice of drug differ, in the present case and the one reported by Wilcox, both individuals turned to an illicit substance to treat psychiatric symptoms out of desperation and were apparently successful.

In addition, case reports add important information to the conclusions drawn on the basis of large-scale controlled trials because of the varied set and settings of their subjects. A vast literature documents the impact of set and setting on subjective drug experiences [25], and case studies are positioned to provide unique insights into the ecological validity of psychedelic drug treatments established by experimental methods. Although psychedelic treatments for psychiatric conditions may become more common in the future, these drugs will no doubt continue to be available without a prescription, so exploring their use by individuals who choose to self-medicate provides valuable information about this subgroup of psychedelic drug users. Given the paucity of research in this area, this case study provides a valuable groundwork for future investigations related to the self-medication of major depression with LSD.

METHOD

Participant

The participant, Ken (not his real name), was a 25-year old, unmarried, Caucasian male who self-identified as someone who suffered from Major Depression and was nearly suicidal when he began medicating with LSD in college. He was identified through a student in an undergraduate class that discussed psychedelic drugs and their potential therapeutic utility. Ken volunteered to participate in this project because he felt his experience was very successful, and he wanted to contribute to current research efforts seeking to promote research investigating the use of LSD for depression.

Design and Procedure

The researchers interviewed Ken for approximately ninety minutes on two separate occasions. The conversation followed a semi-structured format designed to cover basic aspects of his biopsychosocial history and drug-related experiences while allowing for follow-up in other areas as needed. The conversation was recorded and then transcribed. Relevant themes were identified along with specific quotes characterizing those themes.

RESULTS

Family History

Ken grew up in an upper-middle-class suburb of a major metropolitan community in the West. His father worked outside the home,

and his mother was a stay-at-home mom during his childhood. Both parents had graduated from college. He had a brother two years younger than him. He characterized his childhood as "normal." He was interested in visual art as a child and excelled at school. Ken's family was not religious. Ken could not identify any specific aspects of his family life that he felt contributed to his later mood problems.

Mental and Physical Health History

Ken was born with a specific medical problem that impaired his self-concept, especially concerning romantic relationships, but caused no physical symptoms. He reported first realizing he was very depressed as a high school senior. At that time, he reported he had no sense of meaning and increasingly felt alienated from society. He reported that his depression did not seem related to his social life since early in high school, he had few friends and did not feel depressed, but later, he had a strong friend group and felt much more depressed. Ken could not identify any specific psychosocial factors that he felt contributed to his depression beyond existential concerns he related to growing up in modern, suburban America. Specifically, he began to feel that life was flat and meaningless, that he was following a predetermined professional path, and that there was nothing interesting left to be learned.

Ken's mood problems became progressively worse throughout high school and increasingly prevalent in college. In retrospect, Ken reported he experienced all the symptoms of major depression during this time, including passive suicidality. However, he did not consider traditional treatments for depression. He had a mistrust of SSRIs, saying the kids he knew in high school who were prescribed them were "zombies," and he did not want psychotherapy because he wanted to handle his problem on his own. Ken did not tell anyone in his family how he felt. Some of his high school friends knew how unhappy he was, and they were concerned but did not know how to help him.

Ken started smoking cannabis during his sophomore year of high school. He reported smoking once or twice per month during his sophomore and junior years and weekly by the time he was a senior. He reported never liking alcohol but used cannabis recreationally throughout high school. His first experience with psychedelics occurred during his senior year of high school when he went to a national park with a friend and used LSD in conjunction with cannabis. He reported this combination produced vivid visual hallucinations, the most meaningful of which was the clouds over the mountains merging into a dragon that gave him a spinning diamond, which the dragon told him represented knowledge. Ken was impressed by the profundity of this experience, and it later contributed to his hope that LSD might help him manage his depressive symptoms.

College Experience

After graduating from high school, Ken attended a state university and majored in architecture. During this time, he became increasingly depressed. He was smoking marijuana regularly and becoming increasingly concerned about his mental health. Looking back on that time, Ken says he was experiencing every symptom of major depression. He also used other drugs, such as MDMA, MDA, and occasional alcohol during this time. However, he lost interest in alcohol because he noticed it made him feel worse instead of better. He felt the MDMA and MDA were helpful with his social anxiety in some circumstances, but neither made a substantial difference in his depression. "What I needed was more than social connection."

By his sophomore year, Ken reported that he was suicidal. He had seen the movie

"DMT: The Spirit Molecule," based on Rick Strassman's work with DMT [26], which includes a discussion of the therapeutic effects of psychedelic drugs in general and DMT in particular. DMT is one of the active ingredients of ayahuasca, a potent hallucinogenic concoction used for healing purposes in the Amazon. Ken decided to travel to Ecuador to participate in an ayahuasca ceremony "out of mental desperation." However, he was unable to participate in the ceremony due to legal issues related to the volunteer group with whom he was traveling and became so distraught that he tied a bedsheet into a noose, but he stopped short of following through with the planned suicide.

Therapeutic Phase

When Ken returned to college, he began systematically using LSD to treat his depression. He recalled the sense of meaning he felt during his experience at the national park and suspected that LSD could help his depression. Initially, Ken took it sporadically as he experimented with different ways to use it and explored the quality of the drug he received from various sources. Following this period, however, he maintained a regimen of using between 150 mcg and 250 mcg of LSD one day per weekend for approximately six months, during which time his mood noticeably improved. He made sure to take the doses early in the morning on Saturday or Sunday so they did not disrupt his sleep schedule. He then spent the day with three to five familiar people, who were also using LSD, and exploring nature.

Ken says he was rigid about planning for safety and health during this period, which indicated he was beginning to care more about his own survival. His goal was to take a dose strong enough to induce a mystical experience but not so strong that he was overwhelmed or disoriented. During his experimentation, Ken tried micro-dosing but did not continue because it made his stomach upset and confused him. He settled on a relatively high dose of LSD because he felt he needed dramatic effects beyond the typical recreational experience: "I was pretty desperate, to be honest."

Ken did not believe he developed a tolerance to LSD since he intentionally spaced out his doses to avoid that problem while maintaining a maximum therapeutic effect. He also did not believe he experienced withdrawal symptoms since "I felt better the next day, not worse." He also cut back on his cannabis use as LSD began to make him feel better.

After the six-month period, Ken tapered off his use. "I kind of just started feeling better and felt like I didn't need to take it anymore." After approximately two months of not using LSD, his friend returned to campus, and they celebrated by taking LSD together late at night. This violation of his own rules resulted in an unpleasant trip that he knew signified the end of his LSD use. "Like I didn't see a scary clown or pink elephants or something, I just knew it was wrong. The whole time I knew it was wrong. I knew that I was done…. I'm done with my acid phase." The entire therapeutic phase of Ken's LSD use lasted approximately seven months.

During this time, Ken reported that his ability to manage the psychedelic experience improved. "There's not enough emphasis on using it like a tool, like a microscope. I had to learn how to use it over repeated sessions. It's not like I was immediately an excellent user of the LSD mind state. I had to acquire skill in reshaping my own perception." Specifically, he described the skill he acquired as an "acceptance of impermanent phenomena" combined with an ability to manage the experience of unconstrained cognition and unfiltered sensory input without becoming disoriented and confused. "I had to navigate a landscape of perpetual kaleidoscopic events and patterns, perpetually shifting motion. It's

disorienting. I had to learn to have my wits about me…. [T]he power of learning that was to learn to control my own mind. That is exactly what it taught me. That is part of the unbelievably powerful therapeutic aspect."

Ken was not using any other treatment during the time he was treating himself with LSD, although he did begin meditating. "I started meditating because it helped elicit that ego dissolution experience…. I started setting aside time out of the hike to sit down, close my eyes, and meditate, which I had never done before and I never did while I was on acid for a long time…." During this time, he also did not use any other drugs in comparable amounts, frequency, or regularity as he did LSD, which he specifically viewed as a medicine for his condition. In Ken's view, the successful treatment of his depression was solely due to LSD since those were the experiences that had direct, positive effects on his mood, including aftereffects.

Therapeutic Effects

In broad terms, Ken reported that the fundamental way LSD helped him was to facilitate his ability to appreciate the complexity of nature and feel directly connected to it. He simultaneously felt it enhanced his interest in the intricate patterns of nature and unified him with them: "I'm part of this."

Ken described his experience of depression as "repetitive negative thought loops" related to a fundamentally negative self-image and alienation from society in general. He saw LSD as a "catalyst" that facilitated his ability to experience a different perspective on his maladaptive thoughts. "There's a way in which it put me above the thought loops – literally like physically above – and said watch your brain do repetitive things and then, now in the unconstrained cognition style that it allows you to access, you can – honestly, you can purposely reprogram your brain." "The whole thing was all in the head.... It was caused by my own thought loops, and that's why psychedelics were so perfect to treat it. Just break your thought loops. Perfect. Cool. We have a drug that does that."

Ken felt stuck and limited by his architecture program, then LSD expanded his perspective, and everything got more interesting and complex. Part of his depression came from feeling like he understood everything, but his LSD experiences showed him he did not and gave him another frontier to explore. "It's not just that it became more complex, it became *infinitely* complex. No matter how long I studied it would still be interesting." The world was a flat and boring place before, then everything became incredibly interesting, but it did so gradually. "Underlying all seemingly mundane objects is a level of complexity of pattern which I could apprehend – I could manage to extract the exquisite fractal veins out of this leaf that I thought was just a leaf before."

Slowly, Ken reported he began to care about himself and the world. "Everything is the same thing. I was everything. That's why it's so interesting – like oh, I'm this tree, I'm this building…. It made reality seem as though I had a place in it – like I could make real change to reality…. I was the flowing of the ever-present energy of the universe. That's the thing." Ken began to feel noticeably less alienated from his environment and less isolated in his distinct sense of self, even during periods between using LSD.

Risks and Negative Experiences

When asked about the risks involved in choosing this type of intervention for himself, Ken acknowledged that "nothing is completely harmless." He was aware of the potential of precipitating a psychotic break, but also knew the incidence of such experiences was equivalent among psychedelic and non-psychedelic populations [27]. He knew

hiking alone could be dangerous, so he had a rule to always go with friends. At the same time, he also had the rule to set aside a time when he could sit by himself because "[i]n the end the trip was between me and me. The trip was between me and the eternal divine. I had to spend time with that."

However, Ken acknowledged that some aspects of the experience were uncomfortable. "But to some extent that's exactly what I was looking for." Ken explained that a natural environment was the setting he chose for his interventions because the complexity of nature experienced on LSD broke through his ordinary mode of experiencing the world. "It broke my mind. It literally . . . split my mind apart." Specifically, Ken reported that the dissociation and ego dissolution he experienced was uncomfortable, useful, and perhaps uniquely tolerable, given that he had recently been suicidal. "[W]hen you're depressed… you're not really worried about whether you dissolve into nothing."

Ken reported that he felt the primary curative aspects of his LSD experiences were ego dissolution and increased interest in the world around him, which he experienced as related to each other. A seemingly fundamental aspect of Ken's mood problem was his sense of separation from the world around him, but LSD dissolved the rigid boundaries around his sense of self, restoring his ability to appreciate aspects of the world that previously appeared static and dull. "I look at this tree and all of a sudden it's the most interesting thing I've ever looked at in my whole life, and then when I'm sober it's *still* the most interesting thing I've ever looked at, and then I kind of restructured the way I thought about the world and said, oh, actually everything is really interesting and imbued with some sort of significance and meaning." In this way, Ken's sense of emptiness and meaninglessness was undermined by his unmediated connection to the complexity of nature.

Aftereffects

While Ken was using LSD therapeutically, he started to feel increasingly creative, efficient and re-energized in his academic life. He began to see connections between what he was learning in school and his life experience. "At first, it was about the drug because I had the drug, and then I took it, but as soon as I was on the drug, it ceased to become about the drug... It's just a molecule. What's really powerful is the brain. That's the point. . . It's not about the drug. It's just a grain of sand. It's about the beach…. At first, I thought that the drug itself was sacred, but then I slowly started to realize the drug is just a molecule – it's just a crystal. What's really sacred is life itself – the brain and life itself." He also became interested in Buddhism and read books like *The Electric Kool Aid Acid Test* [28]. Ken reported that there were no negative consequences to his use of LSD, and he believed his friends and family would say there were only permanent, positive changes to his personality and behavior.

After his treatment with LSD, Ken reported that none of the depressive symptoms that he had previously reported remained. He had no trouble sleeping. His appetite returned, he regained interest in things he had previously enjoyed, no longer felt guilty or worthless, experienced improved concentration and memory, and was no longer suicidal. In particular, he reported that his suicidality resolved early on because he became hopeful that his treatment strategy would be successful. At the time of the interview, Ken described his current mood this way: "I very infrequently feel even a teeny bit of depressed, and it's not the same kind of depressed. It's like the regular person 'I feel like shit today' kind of depressed, not the 'I hate everything, and I want to die' kind of depressed."

Individual Differences

Ken attributes his ability to devise and carry out using LSD in a therapeutic way to his conscientious nature. He reports being very serious about safety throughout the entire experience. He was very careful about obtaining the LSD from trustworthy sources and taking precautions against the dangers potentially present in nature. He was aware of the need to create a positive set and setting for each experience, knowing that those elements are equally as important as the drug type and dose. In addition, Ken saw his intention to use LSD therapeutically as crucial to its effectiveness, and potentially a distinguishing characteristic separating the way he used it from the recreational way it is often used.

DISCUSSION

Whereas psychedelics have been found to be useful in treating depression in high doses in clinical settings [29] and micro-doses in natural settings [30-32], this case indicates that a series of high doses of LSD may help treat depression in natural settings for some people. Ken's experience comports well with Carhart-Harris et al.'s [33] findings that the mechanism by which LSD facilitates lasting mood improvement is by increasing cognitive flexibility based on Ken's explanation of how it helped was to allow him to access a different perspective on his "negative thought loops." Similarly, Ken's description of his experience corresponds well with findings that micro-dosing psychedelics increase convergent and divergent thinking and suggest that psychedelics might affect cognitive metacontrol policies [34]. Not only did Ken find himself simultaneously more interested in things (convergent) and better able to get beyond his habitual negatively focused cognitions (divergent), but he described LSD as allowing him to "purposely reprogram" his brain. This description fits with findings from Lebedev et al. [35] that psychedelics facilitate ego-dissolution by disrupting the ordinary functioning of the Default Mode Network.

In some respects, Ken's recovery from depression using LSD is unremarkable given his description that the symptoms he experienced were primarily cognitive and his realization that he needed to break the cycle of his negative thought patterns. However, whereas traditional cognitive therapy attempts to accomplish this same end through conversation with a therapist who helps the client recognize and combat the cognitive habits, the unconstrained cognition facilitated by LSD appears to have accomplished the same goal. Thus, although Ken was unwilling to seek therapeutic help, wishing to handle his problems independently, the altered state of consciousness he achieved with LSD served the same purpose as traditional cognitive therapy. This case suggests there may be other individuals, especially those who value their autonomy or are reticent to seek professional help for other reasons, which may achieve the same goals as cognitive therapy using a psychedelically-assisted state of mind.

Ken's experience aligns with findings by [36] that psychedelic drug use is associated with lower levels of psychological distress and suicidality, but it also implies a causal connection. Ken's experience supports findings that psychedelics can reduce symptoms of depression in the short term [37]. It also suggests these gains can persist years beyond the last dose and supports the generalizability of laboratory-based findings to more naturalistic settings.

Ken's case is also different from other users of psychedelics in many ways. He had a specific resolution to use LSD therapeutically on himself, whereas many users' intentions are purely recreational. Ken made a point to educate himself on the multiple factors that influence a user's experience and manipulate dose, set, and setting in ways that facilitated

his purpose. In these ways, Ken's case may be unique, and others severely depressed may be unable to access the cognitive or emotional resources necessary to plan and carry out a complex strategy that requires advanced planning and self-discipline over an extended duration.

Ken's method of treating his depression is not without its drawbacks. Chief among those is that possessing and using LSD is illegal in the United States, according to federal law. Ken was certainly aware of this fact and, having weighed his options, chose to pursue this course of treating his depression despite the risk of criminal liability. As a young man, Ken may be more willing to take risks than other populations and more likely to use psychedelic drugs. For these reasons, young, unmarried, Caucasian males may be uniquely prone to choose this type of treatment from among other, more socially or legally acceptable choices.

Ken also chose to use LSD to treat his depression, whereas recent research has focused more on the effects of psilocybin [37]. His experience was consistent with outcomes reported from early studies on psycholytic psychotherapy in which patients were able to overcome constrained, negative thought patterns and sometimes experienced benefits that persisted over the long term [38]. However, Ken's case is also unique in that he was able to achieve the benefits of psycholytic psychotherapy without the guidance of a therapist.

The causes of Ken's depression also remain unclear. It is possible this type of intervention is uniquely effective for a specific type of depression that is existentially focused as opposed to one that is more organically based or related to trauma. Alternatively, although Ken was unable to identify any specific triggers, his cannabis use during high school may have contributed to the onset of his depression. If so, his reduction in cannabis use during the LSD regimen may have directly contributed to the reduction of his depressive symptoms. Future research should seek to characterize more clearly the particular types of major depression that are most amenable to psychedelic intervention.

Finally, this case naturally suffers from the threats to validity inherent in a self-report occurring approximately three years after the experience. Certainly, Ken's memories cannot be trusted as entirely accurate. On the other hand, Ken's current estimation of the most important aspects of the experience is the best he can offer and perhaps the most relevant. According to his timeline, Ken was becoming increasingly depressed over the course of approximately three years to the point of suicidality and then recovered fairly quickly over the course of seven months using LSD. Perhaps the specifics of his experience are less important than the implication that the accomplishment is possible at all under entirely uncontrolled circumstances.

CONCLUSION

Ken's case suggests that some individuals with sufficient understanding of how to use psychedelics constructively may be able to manage their recovery from severe depression independent of the medical system. Ken's case may also help translate recent laboratory-based research to more naturalistic settings since protocols intended to treat major depressive disorder with psychedelic drugs could be enhanced by understanding the specific therapeutic elements of successful individual cases.

AUTHOR INFORMATION

Send correspondence to Jennifer Lyke, PhD (Jennifer.Lyke@stockton.edu)

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Psilocybin as an Abortive Treatment for Intractable Migraines: A Case Report

Alicia McCullough, MD.

Abstract:
Over a billion individuals worldwide suffer from an acute migraine attack in a single year. Approximately 1% of these individuals suffer from status migrainosus, which is defined as a migraine that lasts longer than 72 hours. These chronic intractable migraines are often refractory to conventional treatment interventions. In this case report, the use of the psychedelic agent psilocybin is discussed as an alternative treatment modality for chronic intractable migraines. The pathophysiology of migraines is examined, and the literature on psychedelic substances in treating migraines is reviewed.

INTRODUCTION

Status migrainosus is a migraine that lasts more than 72 hours and often does not respond to typical abortive treatments, and frequently requires emergency department evaluation or inpatient hospitalization for management. Status migrainosus occurs in an estimated one percent of patients who suffer from migraines. Currently, there is no consensus for the treatment of status migrainosus. This case report examines the role of microdosing psilocybin-containing mushrooms in a patient with chronic intractable migraines that are refractory to traditional in-home abortive therapies. A paucity of literature remains regarding psilocybin use in treating migraines despite the discovery of its structural similarity to ergot alkaloids in the early 20th century [1]. Explorations of serotoninergic psychoactive agents, including lysergic acid derivatives and psilocybin, for prophylactic treatment of migraines and cluster headaches, date back to the 1960s [2].

Notably, advancements in genome-wide association studies (GWAS) have shed light on the heterogeneous nature of underlying etiologies. Since these studies were conducted, the underlying pathophysiology of migraines has undergone significant evolution. There has been a shift away from the vascular theory of migraines, which states that vasodilation of cranial vessels is responsible for migraines, and toward a view of migraines as a neurologic disorder with dysfunction in sensory processing [3]. In addition, it has been proposed that conditions like epilepsy, migraines, and affective disorders might share a common pathophysiological mechanism [4]. Other researchers have highlighted the correlation between chronically low serotonin levels in patients with depression and their risk of developing migraines [5]. Furthermore, genetic variability in metal ion homeostasis may also explain migraine susceptibility [6].

It is no surprise, a wide variety of migraine treatments exist with variable outcomes, which leads patients who continue to suffer from persistent symptoms to look for out-of-the-box solutions.

In 2021, a study demonstrated that a single dose of psilocybin in swine models exhibited increased synaptogenesis and expression of neurotrophic factors involved in the maintenance of viability of neurons and neuroplasticity in the hippocampus and prefrontal cortex. Measurable increases in both synaptic protein (SV2A) density and expression of brain-derived neurotrophic factor (BDNF) and Kalirin-7 have also been observed. Psilocybin achieves these results by binding to 5-

Hydroxytryptamine, specifically subset type, 5HT-2A G-protein coupled receptor (GPCR), and subsequent activation of downstream cell signaling pathways [7]. Psilocybin's receptor targets overlap significantly with receptors commonly implicated in the pathogenesis of migraines—specifically, the 5-HT receptors that bind serotonin. The 5-HT2 subtype is of particular note. Psilocybin acts as a partial agonist at the 5-HT2A receptor subtype. Migraine prophylaxis is successfully achieved when the 5-HT2 receptor is blocked by agents such as methysergide, pizotifen, cyproheptadine, or mianserin. However, it should be noted that these agents act on the 5-HT1C subtype, and Ketaserin, a selective 5-HT2 receptor blocker, has yet to demonstrate any efficacy in treating migraines. The underlying pathophysiological mechanism for why modulation of the 5-HT2 receptor improves migraine symptom burden has not been fully elucidated. However, proposed mechanisms include altering cranial vasoconstriction, increased cranial capillary permeability, increased platelet aggregation, or downstream signaling changes in neuroendocrine functions [8].

CASE DESCRIPTION

The patient is a 42-year-old female of Caucasian descent with a past medical history of labyrinthectomy (1982), multiple concussions with loss of consciousness beginning at the age of 5 and later TBI secondary to a motor vehicle accident, cerebrovascular accident (2002), and intractable chronic migraines with status migrainosus starting in 2014, Depressive Disorder Due to Another Medical Condition, generalized anxiety disorder with panic attacks, breast cancer status post radical bilateral mastectomy and chemotherapy on current Tamoxifen therapy. Her family history was notable for depression, anxiety, and OCD in the patient's sister and dementia in two of her grandparents.

Concerning her migraines, triggers primarily included changes in barometric pressure and psychosocial stresses. Other notable migraine symptoms were aura, photosensitivity, a sensation of "teeth itching," and an exacerbation of anxiety symptoms. Her psychotropic medications included Zoloft 100mg PO Daily.

Management and treatment of the patient's migraines included Botox injections every three months, right occipitalis trigger point injections every three months, Glucanezumab-glm 120 mg subcutaneous injection monthly, Cefaly device use 20 minutes daily and an additional 1-hour session weekly, Gabapentin 300 mg PO TID, Magnesium oxide 400 mg PO BID, Riboflavin 100 mg PO QHS. Abortive methods targeted the patient's acute increase in anxiety symptoms during the aura and prodromal phases. These included Hydroxyzine 25 mg PO once as first-line, Lorazepam 1 mg PO once for second line, and Psilocybin ¼ gram for third-line treatment.

The patient did not experience hallucinogenic effects but rather a feeling of being "evened out and smoothing of the rough edges of pain." She denied any notable side effects. Over approximately 15 months, she typically used Psilocybin two times per month. During this period, the patient did experience a 3-day hospitalization for intractable status migrainosus. In contrast, prior to implementing psilocybin in the current regimen, the patient experienced 360 consecutive headache days in 2017 with subsequent hospitalization for uncontrolled pain, severe depression, and suicidal ideation with a plan to overdose on pain medications.

With the improvement in the treatment of her migraine symptoms, the patient has been able to significantly reduce her time away from work resulting in a recent promotion to a management position in quality assurance at her company.

DISCUSSION

Migraines rank as the sixth most common cause of disability globally, with more than one billion patients having an acute migraine episode in any year [9]. Acute migraines cost 19 billion dollars per year in lost wages and productivity, referred to as indirect costs. Annual direct costs of health care estimates, including hospitalizations, outpatient care, and prescriptions, compared migraineurs nearly $23,000 compared with non-migraine affected individuals $16,000 [10]. The current standard of care for the treatment of migraines is highly effective, but 1% of all patients with migraines suffer from intractable migraines in a given year. In this subset of the population of patients who suffer from migraines, alternative or novel treatment modalities are of particular salience. Psychedelic substances, such as psilocybin, have shown remarkable promise in treating difficult to treat or resistant disorders such as Major Depressive Disorder, Post Traumatic Stress Disorder, and Obsessive-Compulsive Disorder [11]. The use of these substances has also been investigated in chronic pain conditions, and results suggest that substances like LSD and Psilocybin may reduce nociceptive and antinociceptive processing through their activity at the 5-HT receptor [12].

Indeed, survey data indicates that psychedelic substances have been effective at treating cluster headaches:

> "The indoleamine hallucinogens, psilocybin, lysergic acid diethylamide, and lysergic acid amide, were comparable to or more efficacious than most conventional medications. These agents were also perceived to shorten/abort a cluster period and bring chronic cluster headaches into remission more than conventional medications. Furthermore, infrequent and non-hallucinogenic doses were reported to be efficacious [13]. "

Further research has also investigated the use of psychedelic substances in both cluster headaches and migraines. Based on self-report measures, the self-treatment, typically with psilocybin or LSD, significantly reduced the frequency and intensity of migraine and cluster headache attacks. In a significant proportion of respondents, full remission of symptoms for both cluster headaches and migraines were also reported. In one study, "Twenty-two of 26 psilocybin users reported that psilocybin aborted attacks; 25 of 48 psilocybin users and 7 of 8 LSD users reported cluster period termination; 18 of 19 psilocybin users and 4 of 5 LSD users reported remission period extension [14]."

A 2021 double-blind, randomized controlled cross-over trial investigated the use of psilocybin vs. placebo in 10 patients with a history of migraines. Patients were given either placebo or Psilocybin (0.143mg/kg) in two treatment sessions two weeks apart. Patients were instructed to keep a headache diary two weeks prior to the trial and continue it until two weeks after the second session. This study showed that psilocybin significantly reduced the number of weekly migraine days and was not correlated with the intensity of acute psychoactive effects during the psychedelic experience. While this study, like most psychedelic studies, has a small sample size, it does signal that there may be a benefit in using these substances in treating refractory migraine symptoms [15].

CONCLUSION:

Psilocybin and other psychedelic substances may provide additional benefits in treating chronic intractable migraines. While the specific pathophysiology causing migraines has not been fully elucidated, modulation of the 5-HT receptor and downstream secondary messaging signaling cascades are likely involved. Psychedelics, specifically serotonergic hallucinogens, exert their effect via

the 5-HT receptors, making them prime candidates for investigation. Preliminary research shows some benefit, especially when compared with placebo-based interventions. However, future research will need to utilize larger sample sizes and compare psychedelic-based substances against the current standard of care medications commonly used in the management of migraine treatment.

AUTHOR INFORMATION

Send correspondence to Alicia McCullough MD (amccullough2@kumc.edu)

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