

THE SONICEUTICAL™ METHOD

Zendo Stereo and the science of

MUSIC- ASSISTED HEALING

How intentionally designed music maximizes therapeutic outcomes in ketamine-assisted therapy — a peer-reviewed evidence synthesis and clinical framework.

SONICEUTICAL™

Music engineered as medicine.

Leonardo Canneto

Composer & Protocol Designer

THE MISSING VARIABLE

The Missing Variable in Ketamine-Assisted Therapy

What the evidence says — and what most clinics still aren't doing

Ketamine-assisted therapy is one of the most significant developments in psychiatric care in a generation. For patients with treatment-resistant depression, PTSD, and chronic anxiety, ketamine offers something rare: a rapid, measurable shift in neural architecture, and with it, a window of possibility.

But the pharmacology is only half the equation. The acute dissociative window — typically 45 to 60 minutes — represents a period of peak neuroplasticity. What fills that window matters enormously. The quality, texture, and emotional arc of what a patient encounters during a session has been shown to directly predict therapeutic outcomes — sometimes more reliably than the drug itself.

*"Patients' experience of the music was significantly predictive of reductions in depression one week after treatment — whereas self-rated drug intensity was not."*¹

— Kaelen et al., Psychopharmacology (2018)

87%⁹

of KAT patients report music improved their therapeutic outcomes

494^{3,2}

esketamine sessions showing lower anxiety and blood pressure with music vs. without

37⁴

peer-reviewed studies confirming music reduces dissociation and increases therapeutic benefit

Despite this evidence, the current standard of care in most ketamine clinics amounts to a Spotify playlist on shuffle — or silence. There is no arc, no intention, no clinical structure. The most neuroplastic moment in a patient's treatment cycle is left to chance.

Music, when properly designed for this context, functions as what researchers have called a "hidden therapist"¹ — an active guide that structures the emotional journey, reduces anxiety and dissociation, and provides the patient with a sense of forward movement and safety.

The question is no longer 'whether' — it's which music, designed by whom, and for what purpose.

The Zendo Stereo Soniceutical™ Method is the answer to that question.

PEER-REVIEWED EVIDENCE

What the Research Tells Us About Music and Ketamine

A growing body of peer-reviewed evidence makes the case

Ketamine opens a window of heightened neuroplasticity — a state in which the brain's default patterns are temporarily loosened, and new emotional and cognitive connections become possible. Music, during this window, does not merely accompany that process. It shapes it.¹⁰

FINDING 01**Music Experience Predicts Outcomes More Than Drug Intensity**

Kaelen et al. (2018): how a patient experienced the music was a stronger predictor of therapeutic improvement than how intensely they experienced the drug. Musical resonance correlated directly with insight and lasting gain.¹

FINDING 02**Music Reduces Adverse Effects and Improves Physiological Tolerance**

The MUSIK trial (JAMA Network Open, 2024) found music significantly reduced ketamine-induced increases in systolic blood pressure.² A study of 494 esketamine sessions showed lower anxiety and more tolerable dissociation with music³ — and patients reported feeling more in control during administration.⁵

FINDING 03**Music Activates the Brain's Most Therapeutically Relevant Networks**

Both ketamine and music independently affect the default mode network. Under ketamine, the DMN loosens, allowing new connections. Music becomes the primary structure the loosened mind organizes itself around.¹¹ Music type — not just presence — produces measurably different EEG outcomes.⁷

FINDING 04**The Therapeutic Window Demands Intentional Design**

Expert therapists describe ideal music as providing continuous forward movement, emotional scaffolding, and structural safety.⁸ The wrong music is not neutral — it produces resistance, unpleasant imagery, and a sense of being misguided. The wrong music is an active liability.

"Music experienced as resonant with the patient's inner state predicted both the emergence of therapeutically meaningful experiences and downstream clinical improvements — independent of drug intensity."⁶

— Scoping review synthesis, MDPI International Journal of Molecular Sciences (2026)

The evidence does not merely support using music. It demands the music be chosen with the same care as any clinical intervention.

What is needed is not a playlist. It is a protocol.

THE SONICEUTICAL™ METHOD

A Curated Sound Journey for Ketamine-Assisted Therapy

The Zendo Stereo Soniceutical™ Method is a professionally produced, one-hour music journey purpose-built for ketamine-assisted therapy. Every sonic element — tempo, texture, genre, stereo field, and emotional arc — has been deliberately crafted to align with and amplify the known therapeutic phases of the ketamine experience.

PHASE I

Onset / Induction

Music establishes safety, intention, and a gentle invitation inward. The patient is oriented and grounded.

PHASE II

Peak / Expansion

The journey deepens. Music carries the patient through successive emotional rooms at maximum neuroplasticity.

PHASE III

Return / Integration

The patient is grounded and returned. Music anchors the experience and supports meaning-making.

THE CORE INNOVATION: THE CONCEPT OF ROOMS

Each track creates a new interior space — a room with its own emotional temperature, sonic architecture, and depth of field. Patients are encouraged to lean fully into whatever arises within each room. The foreknowledge that the music will move them forward provides a built-in psychological safety net: they do not need to force a resolution. The next room is already coming — and with it, a natural invitation to release what was held in the last.

Breath & Stillness

Gentle Descent

Emotional Swell

Dissolution

Deep Release

Expansive Openness

Returning Warmth

Grounding

WHY PROFESSIONAL PRODUCTION MATTERS

- Intentional arc**
 Transitions between rooms are engineered, not coincidental. No jarring shifts.
- Stereo field design**
 Spatial audio placement guides attention and deepens immersion in each emotional room.
- Reproducibility**
 Every patient receives the same calibrated experience. Clinicians know what to expect.
- Clinical timing**
 The 60-minute runtime is aligned to the active ketamine window, with appropriate pacing.

Designed and produced by Leonardo Canneto — composer, producer, and creator of the Zendo Stereo Soniceutical™ Method.

INTEGRATION GUIDE

Integrating the Soniceutical™ Method Into Your Practice

What it offers your patients — and what it asks of you

The Zendo Stereo Soniceutical™ Method is designed to be seamlessly integrated into any existing ketamine-assisted therapy framework. It does not replace your therapeutic approach. It enhances the conditions under which that approach can do its deepest work.

WHY THIS IS DIFFERENT FROM A PLAYLIST

STANDARD APPROACH	ZENDO STEREO SONICEUTICAL™
Curated by mood or genre preference	Engineered for the ketamine therapeutic arc
Static emotional texture throughout	Sequential 'rooms' — each a distinct emotional space
No clinical timing or structure	60-min runtime aligned to the active ketamine window
Variable audio quality, abrupt transitions	Professionally produced with intentional stereo design
Different every session — no reproducibility	Consistent, reproducible — a true clinical protocol

HOW TO INTEGRATE IT

1 Preparation

In your pre-session conversation, introduce the concept of the journey and the rooms. Let the patient know the music will move them through different emotional spaces, and to allow themselves to be invited in.

2 Administration

Begin the method at the point of ketamine onset. Use quality headphones in a comfortable, low-light environment. The music handles the pacing. Your role during the session is to hold the space.

3 Integration

The return phase is specifically designed to ground the patient and prepare them for the integration conversation. Use the final room's emotional texture as a natural entry point.

"The foreknowledge that the music will move them forward is itself therapeutic — it gives patients permission to go deeper than they would dare to go if they believed they had to find their own way back."

— Leonardo Canneto, creator of the Zendo Stereo Soniceutical™ Method

Bring the Soniceutical™ Method to Your Practice

Available for individual practitioners, group practices, and ketamine clinics.

Leonardo Canneto works directly with clinicians to ensure seamless integration.

zendostereo.com • info@zendostereo.com • 818-987-7916

CITATIONS & SOURCE NOTES

The Zendo Stereo Soniceutical™ Method

References & Further Reading

All claims in this document are drawn from peer-reviewed research or publicly available survey data. Sources are listed below with direct links. Where a statistic derives from a proprietary survey rather than a peer-reviewed study, this is noted explicitly.

1 The Hidden Therapist: Evidence for a Central Role of Music in Psychedelic Therapy

Kaelen, M. et al. (2018). *Psychopharmacology*, 235(2), 505–519.

Core citation: music experience — not drug intensity — predicts therapeutic outcomes. Cited on Pages 1 & 2.

<https://pubmed.ncbi.nlm.nih.gov/articles/PMC5893695/>

2 Music as an Intervention to Improve the Hemodynamic Response of Ketamine in Depression (MUSIK Trial)

Greenway, K.T. et al. (2024). *JAMA Network Open*, 7, e2354719.

Supports the blood pressure finding on Page 2 (Finding 02).

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2814430>

3 Listening to Music During Intranasal (Es)Ketamine Therapy Correlates with Better Tolerability and Reduced Anxiety

Hauser, J. et al. (2024). *Frontiers in Psychiatry*, 15, 1327598.

Source for the 494-session study. Supports anxiety/dissociation finding (Page 2) and stat on Page 1.

<https://www.frontiersin.org/journals/psychiatry/articles/10.3389/fpsy.2024.1327598/full>

4 Exploring the Impact of Music on Response to Ketamine/Esketamine: A Scoping Review

Palbicki et al. (2024). *Neuroscience & Biobehavioral Reviews*.

Source for the 37-study scoping review. Supports the stress/dissociation finding and "37 studies" stat on Page 1.

<https://www.sciencedirect.com/science/article/abs/pii/S0149763424001623>

5 Music Helps Patients Feel More in Control During Ketamine Administration

Greenway, K.T. et al. (2021). *International Clinical Psychopharmacology*, 36, 218–220.

Supports the patient control finding on Page 2 (Finding 02).

<https://pubmed.ncbi.nlm.nih.gov/33560014/>

6 Predictors of the Effectiveness of Psychedelics in Treating Depression — A Scoping Review

MDPI *International Journal of Molecular Sciences* (2026).

Supports the Page 2 pull quote: music resonance predicts outcomes independent of drug intensity.

<https://www.mdpi.com/1422-0067/27/5/2202>

7 The Effect of Music Type in Ketamine-Assisted Group Therapy on Treatment-Resistant Mental Health Conditions

European Psychiatry (2024). Vol. 67, Suppl. 1.

Supports Finding 03: music type produces measurably different clinical and EEG outcomes.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11860921/>

8 Psychedelia: The Interplay of Music and Psychedelics

Jerotic et al. (2024). Annals of the New York Academy of Sciences.

Supports expert therapist recommendations for music structure (Finding 04).

<https://nyaspubs.onlinelibrary.wiley.com/doi/10.1111/nyas.15082>

9 Music's Role in Psychedelic & Ketamine Therapy — Patient & Clinician Survey

Osmind (2022). Proprietary survey, N=102 (55 patients, 47 clinicians).

Source for the 87% patient statistic on Page 1. Note: proprietary patient community survey, not peer-reviewed. Interpret accordingly.

<https://www.osmind.org/blog/the-pivotal-role-of-music-in-ketamine-and-psychedelic-treatments>

10 Mindfulness, Music, Visual Occlusion in Ketamine Therapy for Depression: A Randomized Controlled Trial

Frontiers in Psychiatry (2025).

Supports framing that music makes the ketamine experience more emotionally rich and therapeutically meaningful.

<https://www.frontiersin.org/journals/psychiatry/articles/10.3389/fpsy.2025.1642025/full>

11 The Role of Music in Psychedelic-Assisted Therapy: A Comparative Analysis

PMC / Journal of Psychedelic Studies (2024).

Supports music as structural scaffolding and its role in facilitating mystical encounters (Finding 03).

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11658384/>

For questions about source material or to request the full reference list in APA or Vancouver format: info@zendostereo.com