



# THE ROLE OF KETAMINE IN EATING DISORDER TREATMENT

Reid Robison, MD MBA  
Chief Medical Officer, Novamind  
Medical Director, Center for Change

**cedar**  
PSYCHIATRY



**NOVAMIND**

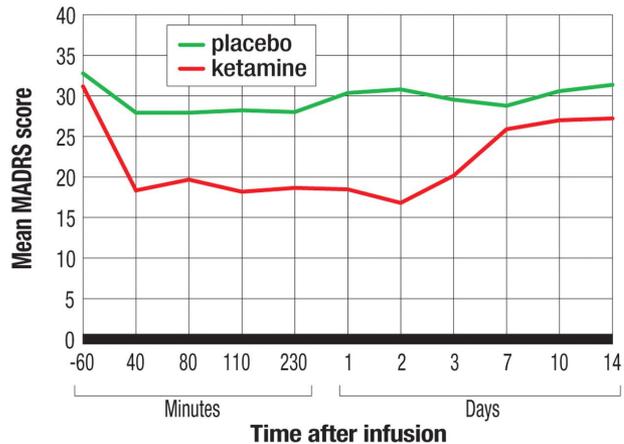
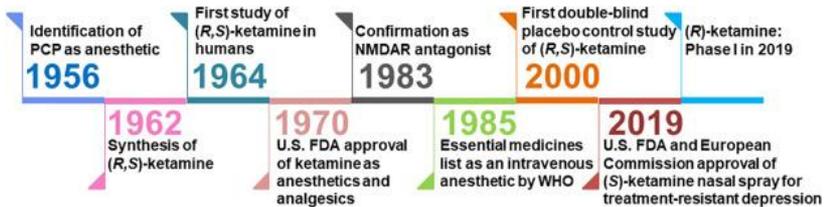
# Lessons learned

from >5000 ketamine sessions  
& >1000 Spravato doses



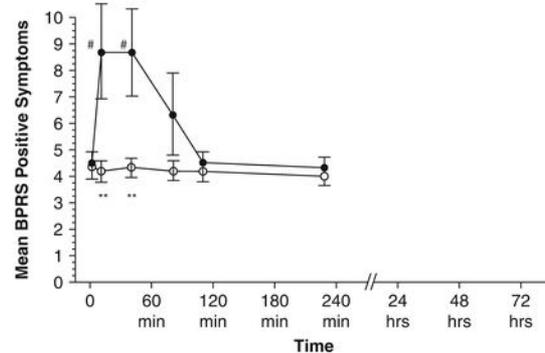
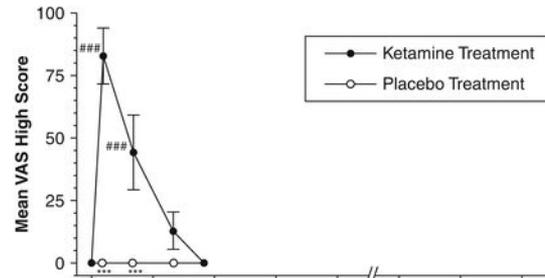
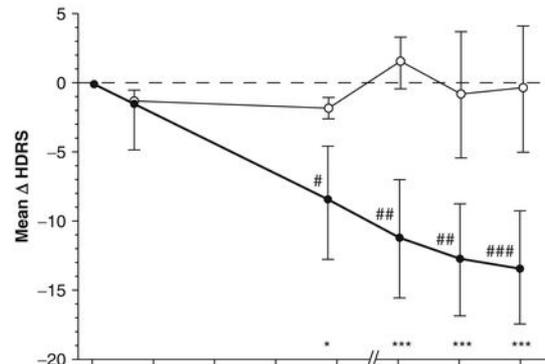
# **Ketamine: Background & Mechanism**





Source: Carlos Zarate Jr., M.D., et al., *Archives of General Psychiatry*, August 2010

Treatment	Effectiveness
Ketamine Infusion	50-70%
Electro Convulsive Therapy	50-60%
Multiple Antidepressants	48%*
Single Antidepressant	36%*
Sugar Pill/Placebo	32%



# Two Main Ways Ketamine May Work (in Eating Disorders)

## As a rapid antidepressant...

- NMDA receptor antagonism to quickly improve mood & reduce anxiety
  - NMDA receptor antagonism
  - Activation of AMPA receptors by ketamine metabolite
- Inhibition of NMDAR dependent bursting in lateral habenula
  - Lateral habenular burst mode is overactive in depressive states

## ...that also reduces cognitive inflexibility

- via action at AMPA receptors, BDNF and mTOR signaling pathways
  - Increased neuroplasticity
- Down regulation of default mode network (DMN)
  - increased cognitive flexibility
- Decreased influx of calcium through NMDA receptor
  - Decreases the rate at which new thoughts are produced in the brain.
    - Low doses of ketamine slow thoughts & reduce rumination
    - High doses block the channel and thoughts become incoherent

## A Catalyst to Accelerate the Therapeutic Process

- Ego dissolving
  - Psychedelic: “to wander in the mind”
    - Mind opening (expanding)
    - See the world from a new perspective
- Heart-opening (empathogenic) & fear-reducing
  - NMDA receptors involved in fear-conditioning
  - Facilitates emotion processing, reducing avoidance of painful emotions/memories
  - Revisiting past trauma via a calming dissociative, in the present of a supportive therapist
- Mystical experience (transpersonal)
  - Connect with your spirituality, see that you are bigger than this moment, this struggle, this body
  - Activate the inner healing intelligence

# Components of Ketamine-Assisted Psychotherapy

- Preparatory Session
  - Medical/Psychiatry screening (if not done previously)
  - Establish rapport, consent & psychoeducation
  - Treatment goals
- Dosing session (4–6 sessions)
  - Intention setting prior to dosing
  - Brief/limited processing afterwards
- Integration sessions
  - Ideally within 1–2 days of dosing session
  - Explore material that emerged / draw connections, insights, meaning related to intentions and day-to-day life



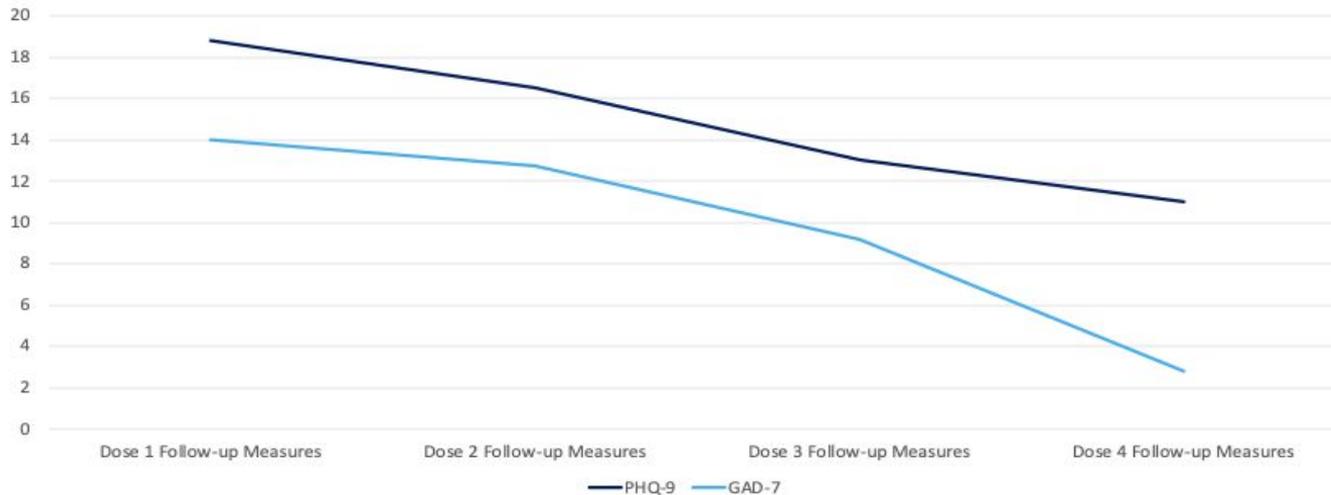
**G-KAP:  
Group-based  
Ketamine-Assisted  
Psychotherapy  
for Eating Disorders**

# G-KAP (Group-based Ketamine-Assisted Psychotherapy): Feasibility Study at Center for Change (Eating Disorders)

- Group-based Ketamine-assisted psychotherapy pilot project done on RTC unit (2018-2019)
  - n=15, residential clients (all with primary dx of eating disorder)
  - Once weekly intramuscular (IM) ketamine for 4 weeks
    - Starting ~0.5mg/kg and increasing as tolerated in a range of ~0.5-1.5mg/kg
      - RN & physician present; vitals checked q15 mins
  - Group-based intention setting before & brief processing after
  - Individual and group psychotherapy in between
  - Primary outcome measures: PHQ-9 & GAD-7
    - Measured pre-dose, post-dose, 4 hr later, 24 hrs later, 1 week later
    - Other variables collected available including dietary progress, LOS, safety parameters
- Results & manuscript in preparation (case series)
  - Most participants had a significant reduction in depression score
  - Most reported positive benefits in their eating disorder; none reported harm or negative outcomes

# Group-based Ketamine-Assisted Psychotherapy (G-KAP)

Mean Scores of Follow-up Measures of PHQ-9 and GAD-7



Depression & anxiety response over time, in individuals with eating disorders in a residential treatment setting

# G-KAP Study: Participant Feedback

“Trying ketamine allowed me to see the possibility of a life I could have. While the effects did not last, my very first experience snapped me out of a state of life-long, deep disconnection that I didn't even know I had been experiencing. Suddenly, I was able to live in the world in the way people had always described it. Though I am still trying to figure out how to attain that level of connection after catching a glimpse, that one experience was so essential. I could finally feel hunger and fullness cues. I felt what it's like to live in a body, instead of living a short distance from it. I felt connected to others and genuinely cared about their well-being. I felt human for the first time in a long time.”

# EF-KAP:

## Emotion-Focused Ketamine-Assisted Psychotherapy

Adele Lafrance, PhD / Reid Robison, MD

- Safety & feasibility study in AN completed Oct 2020
- MDD RCT to begin in Jan 2020



# EF-KAP (Emotion-Focused Ketamine-Assisted Psychotherapy): Guiding Lights

## Principles of Emotion-Processing

### 1) Accessing & Modulating Emotion

- Increase awareness
- Label or Express
- Regulate
- Reflect

### 2) Transforming Emotion

- Transform emotion with emotion
- Transform through corrective experience (with ketamine / therapist / supportive other)

## Every aspect of the EK-KAP intervention is guided by the following goals:

### 1) Softening resistance & increasing self-efficacy with emotion processing

- Increasing skill and confidence with emotion processing
- Promoting flexibility with Ketamine
- Re-establishing the connection with the inner guidance system

### 2) Leveraging the healing power of caregivers

- Strengthening meaningful relationships & creating a recovery-focused system



**Family-KAP:  
Family-based  
Ketamine-Assisted  
Psychotherapy**

# Models of Caregiver Involvement in KAP

## 1. Caregiver supports

- a. Involves recruitment of caregivers who learn specific skills to support their loved one throughout the course of psychedelic-assisted psychotherapy, creating an optimal home environment for healing and growth, and reducing the likelihood of problematic relational patterns that could interfere with treatment outcomes.

## 2. Caregiver co-participation

- a. Involves the recruitment of caregivers who participate in medicine sessions alongside their loved one, thereby leveraging the neurobiological bond to deepen the process of healing and growth, including attending to relationship patterns that may be reinforcing symptoms.

## 3. Caregivers as surrogate healers

- a. Involves caregivers who participate in psychedelic-assisted psychotherapy on behalf of their loved one, who may not be able to participate themselves (i.e. for medical/psychiatric reasons)

# Sample Outline of Family-Based Ketamine-Assisted Psychotherapy “Intensive Retreat”

Day 1	AM	Orientation, goals & intention setting
	PM	Family & individual psychotherapy
Day 2	AM	Intention setting Ketamine #1 Post-ketamine processing
	PM	Recovery Personal integration practices
Day 3	AM	Family & individual psychotherapy
	PM	Family activity Personal integration practices
Day 4	AM	Intention setting Ketamine #2 Post-ketamine processing
	PM	Recovery Personal integration practices
Day 5	AM	Family & individual psychotherapy
	PM	Closing session Recommendations /Treatment Planning



# Summary & Future Directions

# The Potential of Ketamine for Eating Disorders

- Ketamine/Psychedelics, psychotherapy & psychotropics don't need to be mutually exclusive in Eating Disorder treatment
  - Consider them adjunctive, to reduce fears related to recovery, increase flexibility and openness so that ED-specific interventions are easier to receive
- Though KAP may be safe from a medical perspective, careful medical and psychological screening and monitoring is important
- In my opinion, it's a worthwhile pursuit:
  - I've witnessed first-hand the powerful healing that can occur for those suffering from mental health issues and for whom conventional methods have not been effective



**Thank you.**

**Reid Robison, MD MBA**  
[reid@novamind.ca](mailto:reid@novamind.ca)



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