Psilocybin for the Treatment of Obsessive Compulsive Disorder (OCD)

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Introduction

- OCD is a chronic and debilitating condition with a high disease burden [1]
- Lifetime prevalence 2-3% [2]
- Often does not respond well to existing treatments
- Several reported cases of beneficial effects of hallucinogenic drugs (Psilocybin and LSD) for OCD (+ related disorders) [3, 4]
- Doses 8-20 mg or 100-315 µg/kg considered safe and induce a quantifiable psychedelic experience [5, 6]

Questions

- Is the repeated administration (4-8x) of a low and a high dose of Psilocybin safe and well tolerated? (SAEs? Suicidality? Psychotic symptoms?)
- Can Psilocybin reduce OCD symptoms compared to Lorazepam?
- Is it possible for the symptom reduction to endure for 6 months?
- How do the anti-OCD effects relate to psychedelic experiences?

Design

Phase 1:	Phase 2:
randomly assigned to: a) low dose (100 µg/kg) b) high dose (300 µg/kg) c) lorazepam (1 mg)	High dose for everyone
Double masked (both participant AND researchers (In room Care Provider, Investigators, Masked Outcomes Assessor)	Single masked (Participant and Masked Outcomes Assessor)

Methods

Participants

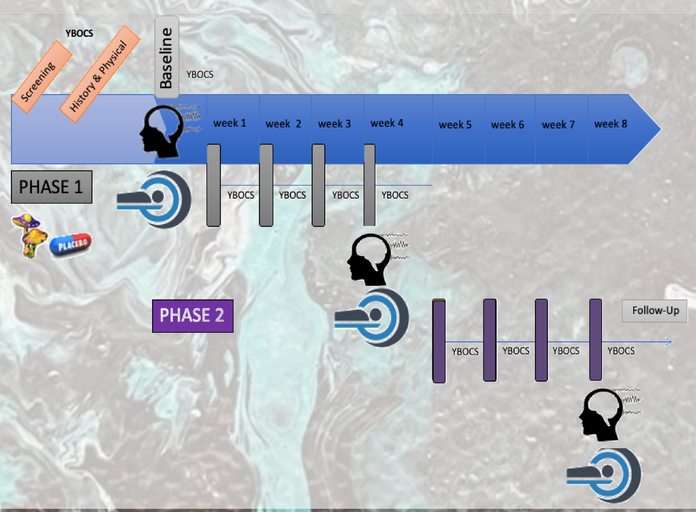
A total of 15 participants with moderate to severe OCD were enrolled, 7 were female and 8 male, 13 white, 2 Asian. The age ranged from 22 to 63 (M= 38.1, SD= 10.8). 4 of the 15 participants had previous experiences with psychedelics, ranging from 1 to 10 encounters with either Psilocybin or LSD.

Information of their clinical presentation can be found in table 1:

	Years with OCD Symptoms	Current Medications	Current Comorbidities	Baseline YBOCS
003	12	None	none	25
007	31	None	none	39
014	34	Lexapro (dose n/a)	none	34
019	10	None	MDD	26
020	16	Luvox (100mg x6m) Wellbutrin (150mg x8m)	MDD	25
023	9	None	MDD	32
024	22	Escitalopram (20mg x6m) Bupropion (200mg x18m) Diazepam (1-2mg BID)	ED, PTSD, BPD	30
032	15	None	GAD	35
035	40	None	MDD, GAD	30
042	15	Effexor (37.5mg – 75mg x4m) Vyvanse (50mg x8m)	GAD, ADHD	19
044	18	None	none	29
045	20	Zoloft (150mg x3y)	none	29
046	25	Lexapro (10-20mg x7y)	PMDD	25
051	9	None	GAD	22
055	6	None	MDD	29

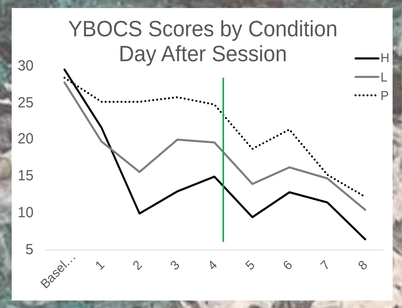
Table 1

Procedure

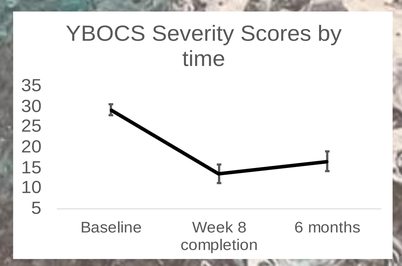


Results

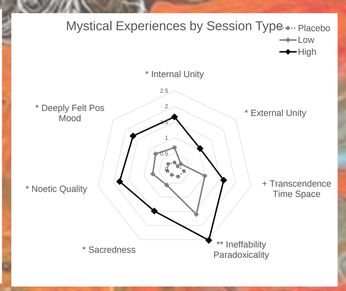
Psilocybin was well tolerated. No increase in suicidality (ideation or behavior), and no emergence of psychotic symptoms was observed. No severe adverse events were observed, and there was no difference between the 3 study groups for minimal, mild or moderate adverse events.



- Psilocybin reduced symptoms significantly more than lorazepam (week 1-4)
- One week following the final (8th) session, 80% of patients were responders (>25% symptom reduction) and 40% were remitted



- After 6 months, 20% are still in remission, 66.7% show >25% reduction, and 53.3% show 35% reduction of symptoms.
- We found a relationship between number of doses and symptom reduction



- Psilocybin compared to Placebo induced mystical experiences and altered states of consciousness, with higher doses inducing more potent experiences
- Stronger experiences corresponded to greater symptom reduction

Discussion

- These findings suggest the promise of psilocybin for the acute and durable treatment of OCD
- In the context of supervised clinical research, psilocybin was safe and well-tolerated
- Psilocybin reduced OCD symptoms to a greater extent than the active control lorazepam.
- Results support the merit of larger clinical trial
- The inclusion of the low dose provided credible blinding in phase 1, an important design consideration.
- While the presence of a psychedelic experience portended a good response, in this small sample it is not possible to specify which specific aspects do so.
- Future research should explore:
  - Optimal number of sessions to induce clinically meaningful and durable response
  - Maximizing the impact for those who may otherwise have minimal psychedelic experience and treatment response.

References

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