Clinical Trial Participant and Clinician Experience in a Phase 2 (US-only) Trial of MM120 for Generalized Anxiety Disorder

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Background

The FDA has emphasized that gathering patients' input on trial experience can be instrumental to enhancing patient enrollment, study participation, and retention in clinical trials (FDA, 2018).

Despite a growing number of guidelines relating to the importance of including patient voice in clinical trial design, few case studies are documented which demonstrate effective ways to obtain patient feedback on trial experience in a comprehensive and reliable way.

Eliciting patient insights may help identify which aspects of a treatment program meaningfully impact the clinical trial experience. In particular, emotions felt during an event can also be stored alongside the memory of an event. Tapping into people 's mood or emotion can improve the ease of recall (Rolls, 2002) and stimulate the participants thinking to enable deeper insights that they might censor during direct questioning (Harper, 2002).

Objectives

This qualitative research aimed to explore the perceptions of clinical trial experiences for participants with generalized anxiety disorder (GAD) during the early stages of product development, specifically in the phase 2b trial for MM120.

This research was completed post trial and intended to capture participants'

- **emotional journey** and
- **experience with GAD**

Methods

We conducted a qualitative research study with trial participants and trial monitors after the completion of the trial. Interviews were conducted from September 2024 to April 2025.

Trial participants were recruited from a phase 2b trial that assessed MM120 (D-lysergic acid diethylamide (LSD) for treatment of patients with GAD was completed in November 2023.

The trial randomized participants to either one of four doses of MM120 or placebo. MM120 was administered during a one-time dosing session, and participants were monitored for at least 12 hours.

Qualitative Study

One-time 60-minute telephone interviews with:

- 21 trial participants (15 receiving dose; 6 receiving placebo)
- Placebo participants were included to understand the perspective of participants who did not experience any psychedelic effects of MM120
- 10 dosing session monitors were interviewed to compliment the trial participant interviews and arrive at a more comprehensive understanding of the trial participant experience

The study protocol received an exemption from Pearl IRB #2024-0310 (7/30/2024)

Moderator guides were created that incorporated open-ended questions, and recognized, published projective techniques were applied to capture the experience and emotions of clinical trial participation

- A virtual screen-sharing platform was used to show visuals integral to the interview procedures
- A graphic of the trial was shown to help with recall of the timing of the trial assessments

Trial participants completed a **Homework Exercise** prior to participating in the interview. During the interview, they engaged in a **Projective Technique** that was incorporated into the discussion guide.

The Homework Exercise included a set of questions to help trial participants contextualize the trial within the context of their everyday experiences with GAD. In one set of questions, patients were asked to finish sentences, such as 'Anxiety makes me feel…, etc.". In another set, the Good Day/Bad Day questions, participants were asked to describe a good and a bad day since completing the trial and how it compares to their pre-trial experience (Lawrence, 2008).

For the Projective Technique, associative imagery was used to explore participants' underlying feelings about their participation in each phase of the clinical trial. Associative imagery uses carefully selected photographs or images to trigger participants' responses to help explain difficult behavioral and social concepts (Gong 2012).

Example images:

PCR11

Results

The homework exercise findings demonstrated substantial life impacts among patients with GAD

Anxiety makes me feel…

"Overwhelmed, hopeless and lonely"

"Uncomfortable"

"like everyone's judging me and I'll never do enough"

"scared"

"nervouse, overthinking everything, and on edge"

Anxiety stops me from…

"from being engaged with others and succeeded in my work life"

"from entering romantic relationships and saying yes to fun experiences"

"from engaging socially"

from accomplishing the things that align with my true desires"

from being able to relax, make decisions, or feel at peace"

A bad day living with GAD means…

"try to avoid the day as much as possible; socialization is cut to a bare minimum; I hide in my office at work"

"I scream and possibly cry with a panic attack – I cannot breathe deeply"

"I am much more held back in what I feel like doing

"feel lost, sad, unproductive, and overall displaced"

"I feel judged and stressed and I am not productive at my job or school, and I am not engaging fully with my daughter"

The projective technique was effective at eliciting participant emotions over the trial period

Pre-Trial

- Tense, fraying
- Panicky, lots of anxiety
- Pretty wrung out, hopeless, worn to pieces
- Giant leap of faith for me, a big risk
- In the woods and trying to figure out a lot of things
- Wishing for things to be a little bit better
- Separate and not grounded

Dosing Session

- Calmness but also mystery, uncertain, cautiously optimistic
- Weight had been lifted off my shoulders, could enjoy the present moment
- Free dive, the not knowing and jumping over the edge and hoping for the best
- I felt pretty cracked open
- Place that you're fearful of, but there could be hope at the end

Follow-up Period

- Very convenient reset, a load off my mind
- Seeing things differently, more relaxing
- Things I used to think were so important no longer felt very important
- Freer from the consistency and chronicity of worry
- Hopeful, coming out of the clouds and into the light
- Some sense of renewal; a little bit more hope afterwards

Post-Trial

- Clear skies is…It stayed with me even as life continues
- Looking deeper into how to manage my anxiety going forward
- Work on my own anxiety, but with more knowledge about it
- Touchstone to come back to and build on, profoundly helpful
- A little growth beginning to happen
- Little more focused, more grounded; growing with new insight

The interview guide surfaced feelings of stigma around the trial treatment

Participant Stigma-Related Concerns

I'm not a big illicit substance person. The way that would affect me filling out forms for the rest of my life was probably the biggest reservation – 'Hey, have you ever tried this or that?' - It really was just the stigma part.

My only other reservation was that my mother would find out because she's very traditional and conservative. I have never really considered myself a drugs person.

My mom was a little bit more reserved. She doesn't know as much about psychedelics. She was a little bit discouraging about it.

Some people really have a very jaded view of the use of those drugs. Most people think of them as a recreational type of drug, especially in my community.

Trial Monitor Feedback on Minimizing Stigma

Describe how it will work

- Neuroplasticity, creating new neural pathways
- Reboot or reset of the brain
- Experience is different for everyone

Describe how patients should approach experience

- Tells patients to be open, something new/different
- Explore world from a new perspective

Use analogies to describe the experience, outcomes

- Helps to connect everything, like AT&T cell service map
- When skiing, at the top of the mountain, can see all the pathways rather than just one
- Compare to shaking up a snow globe and just mixing it all up…forming new pathways to get to healthier ways of thinking about things

The homework findings revealed dosed participants were more likely to feel a benefit after the trial when compared to placebo participants

Example responses to inquiry on comparing a good day/bad day now compared to before the trial

Dosed Patients

*I **feel more grounded** in life. I have a lot more acceptance.*

*I rarely wakeup feeling a sense of doom. The **differences are remarkable**.*

*I feel **more able to redirect my thoughts or emotions** toward calm than before.*

***I don't have the same panic attacks and it's a bit more manageable;** it feels more like a broken day than it does like "I'm a broken person."*

*I have **fewer bad days** now than before the trial.*

*I have **not noticed any difference with anxiety** from the clinical trial. I felt like I did **develop some insight** in regard to where some of my anxiety was coming from.*

Placebo Patients

*Bad days feel **about the same.***

*I can compartmentalize my work a little bit better… I feel like that has come with my job, **not specifically from the trial.***

*Absolutely **nothing happened**.*[a]

***I didn't notice a stark difference**.*

[a] *Note: This statement was made during the interview; not the homework*

Conclusion

- This research outlines a methodology for soliciting patient input regarding their experience living with GAD and their clinical trial experiences, specifically emotional impacts.
- Projective techniques and visual stimuli worked well to gain a holistic picture of the participant's experience, including difficult-to-quantify emotional experiences, even after considerable time had passed.
- The inclusion of placebo patients provided for a comprehensive picture of clinical trial experience in the full participant population.
- Inclusion of the trial schematic to help with trial recall was particularly helpful for trial monitors, who may be working on several studies at once.
- Effective qualitative research strategies can yield valuable insights on practical solutions to improving psychedelic clinical trials.

Acknowledgements

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References

1. Food and Drug Administration (FDA), Patient-Focused Drug Development: Collecting Comprehensive and Representative Input, 2018.nt
2. Gong, F., Castaneda, D., Zhang, X., Stock, L., Ayala, L., & Baron, S. (2012). Using the Associative Imagery Technique in Qualitative Health Research: The Experiences of Homecare Workers and Consumers. Qualitative Health Research, 22(10), 1414-1424. https://doi.org/10.1177/1049732312452935
3. Laurence C. Soley and Aaron Lee Smith. 2008. Projective techniques for social science and business research. Southshore Press, Milwaukee, WI, USA.

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