

Prolonged Psychological Distress Following Recreational LSD Use in a Young Adult with Multiple Vulnerability Factors: A Case Report

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Abstract: While psychedelic experiences are often reported as positive, adverse psychological reactions can occur. We present the case of a 19-year-old Caucasian male who presented to the ER with suicidal thoughts after taking lysergic acid diethylamide (LSD) alone. He was diagnosed with anxious state associated with panic attacks, and suicidal thoughts without ideation or behaviors. He was admitted to the psychiatric ward and treated with trazodone, a serotonin antagonist and reuptake inhibitor antidepressant, and brexpiprazole, an atypical antipsychotic. He responded well and was discharged after 12 days with recommendations to continue therapy with brexpiprazole and attend follow-up at the territorial mental health services. Five days later, he engaged in alcohol consumption with a roommate met during the psychiatric admission, and suicidal thoughts re-emerged. He presented again to the ER but was not admitted to the inpatient unit, since he improved with supportive conversation and medication. One month later, he returned to the ER a third time due to pervasive doubt and confusion that distressed him to the point of triggering unstructured suicidal thoughts. After one week of hospitalization, he was discharged and citalopram (a selective serotonin reuptake inhibitor [SSRI]) was added to the therapy. Following the third admission, the clinical suspicion strengthened that he may have an underlying obsessive functioning pattern that became clinically apparent following LSD use, although the contribution of other vulnerability factors could not be excluded. This case highlights the importance of set and setting, underscores the relevance of harm reduction strategies for both recreational and clinical users, and highlights a potentially negative interaction between serotonergic psychedelics and alcohol.

Keywords: lysergic acid diethylamide (LSD); psychedelic substances; suicidal thoughts; panic attack; adverse psychological reaction; alcohol use; set and setting; case report



1. Introduction

Psychedelics, including LSD (lysergic acid diethylamide), psilocybin, and related compounds, act primarily via serotonergic mechanisms, most notably partial agonism at the serotonin (5-HT)_{2A} receptor [1–3]. Increasing interest in the therapeutic potential of psychedelics has been paralleled by rising recreational use worldwide. While controlled studies report generally safe acute psychological effects in monitored environments, adverse reactions, including severe anxiety, paranoia, psychotic-like symptoms, and suicidal ideation, have been documented [3,4].

The psychological outcome of a psychedelic experience is strongly influenced by set (the user's mindset, expectations, and psychological state) and setting (the physical, social, and cultural environment). Negative experiences are more likely when the individual is alone, anxious, or in an unsafe environment [5–7]. Better understanding the adverse outcomes following psychedelics use is essential not only for clinical risk assessment but also for harm reduction, which aims to minimize the potential negative consequences of substance use [7,8].

Here, we report a case of prolonged psychological distress temporally associated with recreational LSD use in a young adult with a history of repeated psychedelic use, heavy cannabis consumption, alcohol exposure, and multiple psychological vulnerability factors, emphasizing the role of context, substance interactions, and individual vulnerability in shaping psychological outcomes. Unlike most previously reported adverse psychedelic reactions, this case is characterized by a prolonged course involving three emergency presentations over several weeks, persistent obsessive doubt and functional impairment, prior history of cannabis use, and symptom reactivation following alcohol exposure, highlighting the complex interaction between psychedelic experiences, polysubstance use, and pre-existing psychological vulnerabilities. This case aims to contribute to both clinical awareness and harm reduction literature in the field of psychedelics.

2. Ethic Considerations

Written informed consent for publication of this case report was obtained from the patient. All potentially identifying information has been removed to protect patient confidentiality.

3. Case Presentation

3.1. First ER Admission

A 19-year-old male voluntarily presented to the Emergency Department following the recommendation of his community psychiatrist for evaluation of anxiety with panic attacks and suicidal thoughts but denying organized or structured suicidal ideation. His anxiety, panic attacks, obsessive doubts, functional impairment, and recurrent suicidal thoughts had progressively worsened after he used an unspecified amount of LSD alone approximately one month earlier. Since then, he reported being unable to carry out his usual daily activities and felt incapable of initiating tasks due to obsessive doubts about what the “right” thing to do was. On mental status examination, he demonstrated good impulse control, preserved future orientation, and no alterations in thought content or perception. Mood appeared mildly deflected without significant fluctuations. The clinical presentation was considered to reflect underlying personality characteristics, with possible contributions from repeated LSD use and cannabis exposure. No psychotic symptoms, hallucinations, delusions, formal thought disorder, depersonalization, or derealization were identified during psychiatric evaluation. Bipolar spectrum symptoms were not observed clinically. Although obsessive doubt and rumination were prominent, no formal OCD-specific rating scales were administered.

He was given trazodone (serotonin antagonist and reuptake inhibitor [SARI] antidepressant) 30 mg/day and admitted to the psychiatric ward for twelve days, during which he reported feeling “protected by the hospitalization” in relation to his rapid mood swings and emotional lability. Over the course of hospitalization, his therapy was changed to brexpiprazole (atypical antipsychotic) 1 mg/day, and the patient became increasingly critical of his suicidal thoughts and showed subjective improvement. He described what he referred to as an “ontological shock”, characterized by intense existential questioning, uncertainty regarding reality and personal identity, and persistent doubts about how to interpret his experiences and daily decisions. He also reported increased self-awareness and a sense of mental “openness” following this experience. He described intense anxiety during LSD administration, characterized as a sensation of “end of the world,” which he believed contributed to suicidal thoughts. After 12 days, the patient was discharged with brexpiprazole 1 mg/day.

3.2. Second ER Admission

Five days later, the individual returned to the ER on his own after reportedly drinking two glasses of wine with a patient he had met on the ward; they had gone out to celebrate his discharge. His blood alcohol level was

0.23 g/L. The mild alcohol-induced sensation of intoxication triggered a recurrence of anxiety, confusion, obsessive doubt, and vague suicidal thoughts (“I don’t know what to do, maybe I want to kill myself again”). Intake in the psychiatric ward was considered, but after an interview with the emergency psychiatrist and administration of trazodone 60 mg/mL, he was discharged because he improved with supportive conversation and medication, scoring 0 on the suicide risk scale.

3.3. Third ER Admission

One month later, he was hospitalized again. He returned voluntarily to the ER with apathy, a sense of being lost regarding daily activities, and pervasive doubt and confusion that distressed him to the point of triggering unstructured suicidal thoughts. These symptoms had been present in a less pervasive form over the previous weeks and had increased in intensity, although the patient did not associate their worsening with any specific life event. The brexpiprazole dose was increased to 2 mg/day and escitalopram (a selective serotonin reuptake inhibitor [SSRI]) 10 mg/day was initiated because his presentation suggested an emerging obsessive pattern. After one week of hospitalization, the patient was discharged following an overall improvement in his symptoms, similarly to the previous admission. This additional clinical observation strengthened the suspicion that he might have had an underlying obsessive functioning pattern that became clinically apparent following LSD use, although the contribution of other vulnerability factors could not be excluded. The recurrence of symptoms following alcohol consumption suggested that substance-induced alterations in perception or subjective state might have reactivated and intensified his obsessive doubt. For these reasons, an individualized treatment plan was established at the Mental Health Center, including weekly meetings with a psychiatrist and a psychotherapist.

4. Past History

His past psychiatric history was notable for two years of psychotherapy, after which he had been referred to a psychiatrist; however, he reported that pharmacotherapy was deemed unnecessary at that time. The patient disclosed daily tobacco use, frequent use of high doses of cannabis (with abstinence for the past 10 days at first ER admission), occasional alcohol consumption and three episodes of LSD ingestion over the past few months. Precise LSD doses and intervals could not be reliably reconstructed retrospectively. While repeated psychedelic exposure might have contributed to symptom exacerbation, causality could not be established. The most recent episode of LSD use occurred approximately one month prior to admission, taken alone with the intention of “traveling inward”. Following this experience, he reported persistent anxiety, sleep disturbances characterized by frequent awakenings, difficulty completing tasks, and ruminative thoughts, including recurrent thoughts of death—which he stated had been present in the past, but had remitted following psychotherapy and had recently reappeared. These symptoms progressively worsened over the subsequent month, ultimately leading him to seek psychiatric evaluation.

His mother had depression and probable panic disorder and was not receiving pharmacotherapy. The patient completed “middle school” (the equivalent of grade 8 in Italy). The parents separated when he was 7 years old, an event that provoked great suffering in him. He reported having been an introverted child. He reported having changed several schools over the years and experiencing difficulty forming meaningful friendships with classmates and peers. In grade 7 he failed due to being uninterested in studying. He subsequently became interested in music and started using cannabis when he was 14.

At the age of 16, he endured a severe episode of bullying. The abuse was live-streamed and recorded, showing him being harassed and physically assaulted, before the video was posted on social media. After this episode he intensified cannabis use. At the age of 16, the patient reported a distinct incident: he threw rocks from a bridge onto passing vehicles below, damaging one car. This episode was reported to the juvenile court, which mandated a 9-month course of psychotherapy. The patient reported deriving significant benefit from it. He stopped attending high school when he was 18 without graduating.

5. Discussion

This case illustrates a prolonged adverse psychological reaction temporally associated with recreational LSD use in an individual with prior psychedelic experience and multiple vulnerability factors, including heavy cannabis use, alcohol exposure, adverse childhood experiences, and a family psychiatric history. While most recreational or therapeutic psychedelic use is not associated with severe adverse psychological outcomes, a subset of individuals may experience significant psychological distress, particularly in the presence of pre-existing vulnerabilities and unfavorable contextual circumstances [4,9].

The current episode highlights the complex interaction between individual vulnerability factors, contextual influences, and substance use in shaping psychological outcomes following psychedelic experiences. This case

supports the potential value of harm reduction strategies, including the presence of supportive companions, safe environments, and avoiding solitary use, particularly for individuals with psychiatric vulnerabilities [5,7,8,10–12]. Clinicians should be aware that psychedelic use in unsupervised settings may, particularly in individuals with pre-existing vulnerabilities, be associated with significant psychological distress, including suicidal thoughts or behaviors requiring timely assessment and intervention.

Although the patient used LSD alone and reported experiencing intense anxiety during the experience, the available clinical information does not allow definitive conclusions regarding the relative contribution of LSD exposure, polysubstance use, or pre-existing psychological vulnerabilities to the subsequent clinical presentation.

This report should be interpreted considering that the amount of LSD consumed was unknown. This is a common challenge in recreational settings, where users frequently lack reliable information regarding dose, purity, or potency. The patient described intense anxiety, a sensation of impending catastrophe (“end of the world”), profound existential questioning, and an “ontological shock.” Such experiences have been described in the psychedelic literature as ontological challenges or ontological shocks, characterized by a destabilization of previously held assumptions regarding the self, reality, meaning, and personal identity, which may be experienced as distressing or confusing during the integration process [13,14]. Although a substantial subjective psychoactive effect was reported following LSD use, retrospective clinical information did not include a detailed characterization of psychedelic phenomenology such as ego dissolution, perceptual distortions, pseudo-hallucinations, alterations in self-boundaries, or mystical-type experiences. Consequently, it was not possible to determine whether the experience was more consistent with a psycholytic effect, a fully psychedelic-dose experience, or an intermediate subjective state. Consequently, the intensity of the psychedelic experience and the extent to which the observed clinical presentation was related to dose-dependent effects, LSD exposure itself, polysubstance use, pre-existing psychological vulnerabilities, contextual influences, or a combination thereof cannot be reliably determined.

Hallucinogen Persisting Perception Disorder (HPPD), a condition characterized by the persistence or recurrence of perceptual disturbances following hallucinogen use, including visual trails, afterimages, halos, geometric visual phenomena, and other visual distortions [15–17], was also considered in the differential diagnosis. However, the patient did not report persistent visual disturbances, afterimages, visual trails, geometric hallucinations, or other perceptual abnormalities characteristic of HPPD, making this diagnosis unlikely.

In addition, the patient reported three LSD experiences over the preceding months. Although detailed information regarding dose and frequency was unavailable, the potential contribution of repeated psychedelic exposure to symptom exacerbation cannot be excluded.

Previous literature has documented that adverse reactions to psychedelics can include panic, paranoia, and suicidal ideation/behavior, even among experienced users. This case aligns with those observations and highlights that prior positive experiences, or previous experiences with other drugs do not guarantee safety in future sessions [4,18,19].

Previous heavy cannabis use, with cessation only ten days before the first ER presentation, may also have contributed to the clinical presentation. Frequent high-dose cannabis exposure has been associated with anxiety, panic reactions, derealization, and the exacerbation of underlying psychiatric vulnerabilities. Therefore, the observed clinical course cannot be attributed solely to LSD exposure and may reflect the interaction between multiple biological, psychological, and environmental risk factors.

The patient’s favorable response to treatment highlights the potential for recovery with appropriate psychiatric care. Follow-up psychotherapeutic care and ongoing pharmacological therapy are understood to be crucial to monitor for residual symptoms, prevent relapse, and address the underlying psychological or contextual factors that contributed to the adverse episode.

6. Conclusions

This case describes prolonged psychological distress temporally associated with recreational LSD use in a young adult with multiple vulnerability factors, including heavy cannabis use, alcohol exposure, adverse childhood experiences, and a family psychiatric history. Although causal relationships cannot be established, the case highlights the importance of considering individual vulnerability, polysubstance use, and contextual factors when evaluating adverse psychological outcomes following psychedelic use. Further research is needed to better understand the factors contributing to prolonged psychiatric difficulties in susceptible individuals.

Author Contributions

A.I.: conceptualization, methodology, data curation, writing—original draft, writing—review & editing; G.D.A.: investigation, data curation, writing—review & editing; A.M.: investigation, data curation, writing—

review & editing; M.R.B.: investigation, resources, data curation, writing—review & editing; M.S.: investigation, resources, data curation, writing—review & editing; M.P.: conceptualization, methodology, supervision, validation, writing—review & editing. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement

Ethics committee approval was not required for this case report, as it describes a single clinical case based exclusively on information collected during routine clinical care and did not involve any research-specific intervention, experimental procedure, or modification of the patient's clinical management for research purposes.

Informed Consent Statement

Written informed consent has been obtained from the patient to publish this paper.

Data Availability Statement

All relevant data supporting this case report are included in the article. Additional patient-level clinical data are not publicly available due to ethical and privacy considerations and the need to protect patient confidentiality.

Conflicts of Interest

The authors declare no conflict of interest.

Use of AI and AI-Assisted Technologies

During the preparation of this work, the authors used ChatGPT (OpenAI) to assist with language editing, grammatical correction, and stylistic refinement. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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