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RELATIONSHIP BETWEEN STRESS AND CATATONIA PHENOMENOLOGY: A CASE SERIES

Psychiatry

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ABSTRACT

Catatonia is a complex neuropsychiatric syndrome characterized by motor, behavioral, and affective abnormalities. Emerging evidence suggests that acute psychosocial stress may play a significant role in its onset and severity. Our objective was to examine the clinical presentation of catatonia and explore the relationship between acute stress and catatonic symptoms. In this case series we analyzed 8 patients presenting with catatonia at RINPAS, Ranchi. Clinical features were assessed using the **Bush Francis Catatonia Rating Scale (BFCRS)**, and stress levels were measured with the **Perceived Stress Scale (PSS)**. All patients received injectable **Lorazepam**, and their response was documented. All patients exhibited key features of catatonia, including **mutism and posturing**. The **mean PSS score was 28**, and the **mean BFCRS score was 21.38**. A **positive correlation (r = 0.70)** was found between perceived stress and catatonia severity. All patients responded to Lorazepam with noticeable clinical improvement. Acute stress appears to be a significant contributor to the development and severity of catatonia, particularly among younger individuals[4]. Early recognition of stress-related triggers and prompt treatment with Lorazepam can lead to rapid symptom resolution. Further research with larger samples and control groups is needed to validate these findings.

KEYWORDS

Catatonia, Acute Stress, Mutism, Stupor, BFCRS, PSS.

INTRODUCTION

Catatonia is a neuropsychiatric syndrome that presents with a wide spectrum of motor, affective, and cognitive-behavioural abnormalities. These symptoms can last from a few hours to several days and are often observed in association with various psychiatric disorders, most notably schizophrenia and mood disorders and stress plays an important role in development of symptoms of catatonia. However, catatonia can also be seen in general medical conditions or following withdrawal from certain medications. The core features of catatonia include mutism, stupor, waxy flexibility, posturing, agitation, stereotypy, negativism[1-3].

Timely recognition and intervention in catatonia are vital due to the risk of serious complications such as autonomic instability, which can be life-threatening. The primary treatment modalities include benzodiazepines (particularly lorazepam), electroconvulsive therapy (ECT), and treating the underlying conditions leading to catatonia[2,3]. Notably, revisions in the ICD-11 and DSM-5 now recognize catatonia as a distinct clinical entity, rather than merely a subtype of schizophrenia.

AIM

1. To identify common clinical presentations among patients with catatonia.
2. To explore the potential causal role of psychosocial stressors in the development of catatonia.

METHOD

This study utilized a case series approach based on observations, clinical assessments, and patient history of individuals who presented with catatonia to the outpatient department of RINPAS, Ranchi. Evaluation included physical examination, stress assessments, and intervention outcomes.

Tools Used

- Bush Francis Catatonia Rating Scale (BFCRS)
- Perceived Stress Scale (PSS)
- ICD-11 diagnostic criteria

Case Summaries:

Case 1:

A 55-year-old male with a 15-year history of schizophrenia and irregular medication compliance presented with a week-long history of reduced social interaction, blank facial expression, fixed gaze, and abnormal posturing. He was mute and unresponsive both verbally and non-verbally. On examination, he exhibited waxy flexibility-maintaining unusual postures for extended periods and reverting to original positions only upon external manipulation. Following the administration of injectable lorazepam, he began verbalizing within 15 minutes and no longer showed abnormal posturing. Antipsychotic treatment was initiated with a focus on regular compliance. His **BFCRS score was 16**, indicating likely catatonia, and **PSS score was 21**, suggesting moderate stress.

Case 2:

An 18-year-old male with no previous psychiatric history presented with a 10-day history of social withdrawal, disturbed sleep and appetite, poor hygiene, atypical postures, lip puckering, unresponsiveness, and bladder/bowel dysfunction, including occasional incontinence. Symptoms followed a romantic rejection. On examination, he was mute, dishevelled, and maintained a seated posture with forearms extended and feet raised. Persistent lip puckering and bladder distension were noted. When manipulated, he held an elevated arm posture for a prolonged period. Fifteen to twenty minutes after injectable lorazepam, he relaxed his posture, responded verbally, and voluntarily voided urine. His **BFCRS score was 23** and **PSS score was 31**, indicating catatonia with high stress.

Case 3:

A 24-year-old male with no psychiatric history reported an 8-day duration of decreased interaction, social withdrawal, insomnia, anorexia, prolonged posturing, staring, and fearfulness. These symptoms emerged following a property dispute with neighbours. On examination, he was mute and stared continuously. Upon manipulation, he maintained an extended arm posture before returning it on command. Post-injection of lorazepam, he began verbalizing and expressed fear of harm from his neighbours. His **BFCRS score was 16** and **PSS score was 29**, consistent with catatonia and high stress.

Case 4:

An 18-year-old male with no prior psychiatric illness presented with 5 days of decreased social interaction, altered sleep and appetite, poor hygiene, staring, and continuous facial grimacing following the death of his father. He remained mute and frequently nodded or shook his head in response to questions. After receiving injectable lorazepam, he began speaking and the facial grimacing reduced. His **BFCRS score was 17** and **PSS score was 23**, indicating catatonia with moderate stress.

Case 5:

A 17-year-old female with no psychiatric history presented with 10 days of social withdrawal, fixed staring, sustained posturing, and disrupted sleep and appetite. Symptoms followed her parents' refusal to let her move to the city for further education. During assessment, she maintained a provocative and angry stare, clenched fists, and resisted physical and verbal prompts. After lorazepam injection, she responded

verbally and her body posture relaxed within 20 minutes. Her **BFCRS score was 30** and **PSS score was 28**, indicating severe catatonia and high stress.

Case 6:
A 21-year-old female from a low socioeconomic background presented with irritability, restlessness, decreased social interaction, urinary incontinence, and poor hygiene over five days. The onset was linked to stress over family finances while staying in a working women's hostel. Her roommate noticed behavioural changes and informed her family, who brought her in for evaluation. She was mute, irritable, and resisted all examination attempts. Bladder distension was noted, suggesting retention. Post-lorazepam, she became cooperative, responded verbally, and voided urine voluntarily. Her **BFCRS score was 28** and **PSS score was 38**, consistent with catatonia and very high stress.

Case 7:
A 19-year-old male with a history of psychoactive substance use reported five days of poor hygiene, unusual postures, disrupted sleep/eating, and social withdrawal. Informants noted irritability and boastful speech over the past month. He was mute, maintained a fixed stare, resisted physical prompts, and intermittently shook his head during examination. Post-lorazepam, he began making grandiose statements suggestive of mania. His **BFCRS score was 17** and **PSS score was 20**, pointing to catatonia with moderate stress and an underlying bipolar affective disorder.

Case 8:
Another 19-year-old male, also with a history of substance use, presented similarly to Case 7. Symptoms included five days of poor hygiene, disrupted sleep and eating, abnormal posturing, and mutism. Examination showed fixed staring, resistance to manipulation, and head shaking. Following lorazepam, his posture relaxed and he began speaking, displaying grandiosity. His **BFCRS score was 24** and **PSS score was 34**, indicating catatonia with high stress and likely bipolar features.

Perceived Stress Scale (PSS) Analysis
- Age Range: 15 to 55 years (Mean: 23.4)
- Gender Distribution: 6 males, 2 females
- Mean PSS Score: 28.0
- Score Range: 20 to 38
- Stress Levels: 5 patients had high stress, 3 had moderate stress, none had low stress

Stress Level By Age And Gender
- Patients under 21 showed a higher prevalence of high stress
- Males represented 75% of the cohort, but both female patients had high stress scores

Bush Francis Catatonia Rating Scale (BFCRS) Analysis
- Mean Age: 25.25 years
- Gender Distribution: 6 males, 2 females
- Symptoms Assessed: 23, scored 0-3 each
- Total Score Range: 16 to 30 (Mean: 21.38)
- Interpretation: All classified as "Likely Catatonia"

Most Prevalent Symptoms:
- Mutism (100%)
- Posturing/Catalepsy (100%)
- Withdrawal (87.5%)
- Staring (87.5%)
- Immobility/Stupor (87.5%)

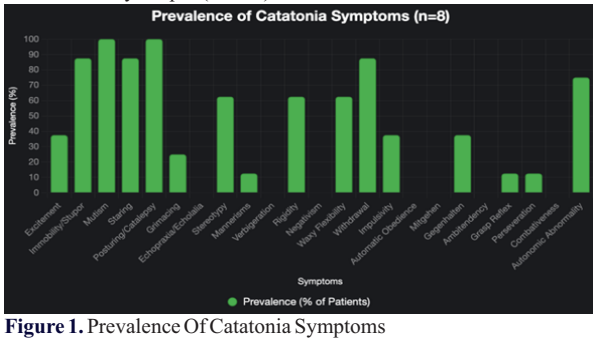

Figure 1. Prevalence Of Catatonia Symptoms

Absent Symptoms:
Echopraxia/Echolalia, Verbigeration, Negativism, Automatic Obedience, Mitgehen, Ambitendency, Combativeness

Total Score Analysis:
- Highest: 30 (Female, 17 years)
- Lowest: 16 (Males, 24 and 55 years)

Gender Differences:
- Female patients had higher mean BFCRS scores (29 vs 18.83 in males)
- Due to small sample size, findings are suggestive but not conclusive

Age-Based Trends:
- Young patients (15-24) had higher mean scores (20.83)
- The sole older patient (55 years) had the lowest score (16)

Table 1: Correlation Between Stress And Catatonia

Patient	Age in years	Gender	Total BFCRS Score	Total PSS Score	Stress Level
1	55	Male	16	21	Moderate
2	18	Male	23	31	High
3	24	Male	16	29	High
4	18	Male	17	23	Moderate
5	17	Female	30	28	High
6	21	Female	28	38	High
7	19	Male	17	20	Moderate
8	15	Male	24	34	High

Paired BFCRS and PSS scores showed a positive correlation. Patients with high stress tended to have higher catatonia severity.
- Pearson Correlation Coefficient: r = 0.70
- Patients with High Stress: Mean BFCRS = 24.2
- Patients with Moderate Stress: Mean BFCRS = 16.67

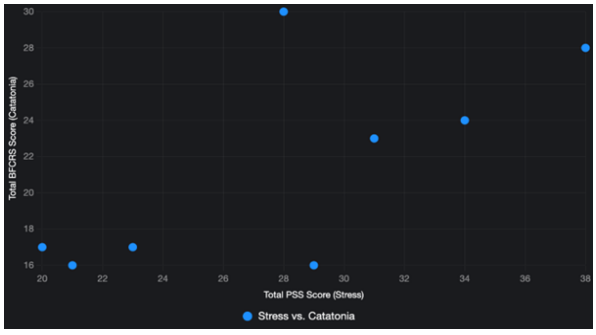

Figure 2. Scatter plot with Total PSS Score on the x-axis and Total BFCRS Score on the y-axis.

Interpretation: There is a moderate to strong positive relationship between perceived stress and catatonia severity. High stress appears to be associated with more intense catatonic symptoms. While causality cannot be definitively determined from this data, stress likely plays a significant role in the manifestation and intensity of catatonia.

Limitations:
- Small sample size (n=8)
- Gender imbalance (6 males, 2 females)
- Lack of a non-catatonic control group
- Findings may not be generalizable without larger-scale studies

CONCLUSION:
This case series highlights the strong association between acute psychosocial stress and the presentation of catatonia. All patients responded to lorazepam, underscoring its utility in diagnosis and initial treatment. Core symptoms such as mutism and posturing were universally present, while less common symptoms showed wide variability. Notably, a higher level of perceived stress correlated with increased catatonia severity. These findings support the need for clinicians to assess for recent stressors in patients presenting with catatonic symptoms, particularly in younger populations. Future research with a larger sample and control groups is essential to further clarify the relationship between stress and catatonia.

Conflict Of Interest: None

Funding: None

Ethical Consideration: Consent for research purposes was taken from the cases as per department protocol and anonymity was ensured.

REFERENCES:

1. Fink, M. Rediscovering catatonia: The biography of a treatable syndrome. Acta Psychiatr. Scand. 2013, 127, 1–47.
2. Sienaert P, Dhossche DM, Vancampfort D, De Hert M and Gazdag (2014) A clinical review of the treatment of catatonia. Front. Psychiatry 5:181. Doi10.3389/fpsyt.2014.00181
3. Edinoff, A.N.; Kaufman, S.E.; Hollier, J.W.; Virgen, C.G.; Karam, C.A.; Malone, G.W.; Cornett, E.M.; Kaye, A.M.; Kaye, A.D. Catatonia: Clinical Overview of the Diagnosis, Treatment, and Clinical Challenges. Neurol. Int. 2021, 13, 570–586. https://doi.org/10.3390/ neurolint13040057
4. Yerlikaya Oral E. Acute Stress Induced Catatonic Psychosis in an Adolescent: A Case Report. *European Psychiatry*. 2024;67(S1):S728-S729. doi:10.1192/j.eurpsy.2024.1515